AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

PART A
DEFINITIONS, PURPOSE, SCOPE, AND APPLICATION

WAC 296-52-099 Definitions. Aerial blaster in charge. A person who:

(a) Is fully qualified, by means of training and experience in explosives use;

(b) Is adequately trained, experienced, and capable of recognizing hazardous conditions throughout the blast area;

(c) Is in charge of:

(i) The blast process; and

(ii) All aspects of explosives ((~~and~~)) including blasting agent storage, handling, and use as recommended by the manufacturer and as required by this chapter.

(d) Is in a position of authority:

(i) To take prompt corrective action in all areas of the blast operation; and

(ii) Over all other users (blasters) at the blast ((~~sight~~)) site.

(e) Has a minimum of five missions under the supervision of a licensed aerial blaster in charge; and

(f) Successfully completes a written exam for aerial blaster in charge.

Alien. Any person who is not a citizen or national of the United States.

American table of distances. The *American Table of Distances for Storage of Explosives* as revised and approved by Institute of the Makers of Explosives (IME).

Approved storage facility. A facility for the storage of explosive materials which is in compliance with the following sections:

(a) Storage license (WAC 296-52-660);

(b) Storage of explosive materials, Part E of this chapter; and

(c) Magazine construction (WAC 296-52-700).

ATF. The Bureau of Alcohol, Tobacco, Firearms and Explosives.

Attended, as attending explosives. The physical presence of an authorized person within the field of vision of explosives. The said attendant ((~~shall~~)) must be awake, alert, and not engage in activities which may divert their attention so that in case of an emergency the attendant can get to the explosives quickly and without interference,

except for brief periods of necessary absence, during which absence simple theft of explosives is not ordinarily possible.

((**~~Authorized agent~~**. ~~A person delegated by a licensed purchaser, who possesses a basic knowledge of explosives handling safety, to order and receive explosives on the purchaser's behalf.~~

~~Authorized agent list~~. ~~A current list of agents the purchaser has authorized to order or receive explosives on their behalf.~~))

Authorized, approved, or approval. Authorized, approved, or approval by:

(a) The department;

(b) Any other approving agency; and

(c) An individual as specified in this chapter.

((**~~Authorized person~~**. ~~A person approved or assigned by an employer, owner, or licensee to perform a specific type of duty or be at a specific location at the job site.~~))

Avalanche. The sliding or falling of a large amount of snow down a steep slope which has a destructive force due to its mass.

Avalanche control pack. A specially designed and constructed pack for carrying explosives.

Avalanche control route. A route or specific path which is used by an authorized person in order to control the occurrence of avalanches.

Avalauncher. A device like a cannon which is used for avalanche control blasting. It has a rotating base calibrated for pointing and the barrel is mounted on an elevating mechanism. It uses a compressed gas to propel a projectile containing an explosive charge and detonating means. The gas source is connected to the gun by high pressure hose with in-line control valves and pressure gauges ahead of the trigger mechanism.

Barricades.

(a) **Barricade.** Effectively screening a building containing explosives by means of a natural or artificial barrier from a magazine, another building, a railway, or highway;

(b) **Artificial barricade.** A barricade of such height that a straight line from the top of any sidewall of the building containing explosives to the eave line of any magazine or other building or to a point ((~~twelve~~)) 12 feet above the center of a railway or highway ((~~shall~~)) must pass through such barrier, an artificial mound or properly revetted wall of earth with a minimum thickness of three feet;

(c) **Natural barricade.** Any natural hill, mound, wall, or barrier composed of earth, rock, or other solid material at least three feet thick.

Black powder. A deflagrating or low explosive compound of an intimate mixture of sulfur, charcoal, and an alkali nitrate, usually potassium or sodium nitrate.

Blast area. The area of a blast that is effected by:

(a) Flying rock missiles;

(b) Gases; and

(c) Concussion.

Blast pattern. The plan of the drill holes laid out and a display of the burden distance, spacing distance, and their relationship to each other.

Blast site. The area where explosive material is handled during loading ((~~and~~)) of blast holes including:

(a) Fifty feet (15.2 m) in all directions from the perimeter formed by loaded ((~~blast holes or~~)) holes ((~~to be loaded~~)); or

(b) A minimum of 30 feet (9.1 m) may replace the 50 foot (15.2 m) requirement if the perimeter of loaded holes is marked and separated from nonblast site areas by a barrier.

Note: The 50 foot (15.2 m) or 30 foot (9.1 m) distance requirements, as applicable, must apply in all directions along the full depth of the blast hole. In underground mines, at least 15 feet (4.6 m) of a solid rib, pillar, or broken rock can be substituted for the 50 foot (15.2 m) distance.

Blaster (user). A person trained and experienced in the use of explosives and licensed by the department.

Blaster in charge (BIC). A licensed blaster who is:

(a) Fully qualified, by means of training and experience in explosives use;

(b) Adequately trained, experienced, and capable of recognizing hazardous conditions throughout the blast area;

(c) In charge of:

(i) The blast process;

(ii) All aspects of explosives ((~~and blasting agent~~)) storage, handling, and use as recommended by the manufacturer and as required by this chapter.

(d) In a position of authority:

(i) To take prompt corrective action in all areas of the blast operation;

(ii) Over all other users (blasters) at the blast area.

Blaster's (user's) license. An individual license issued by the department under the provisions of chapter 296-52 WAC((~~.~~

~~**Blasting agent.** Any material or mixture consisting of a fuel and oxidizer:~~

~~(a) That is intended for blasting;~~

~~(b) Not otherwise defined as an explosive;~~

~~(c) If the finished product, as mixed for use or shipment, cannot be detonated by means of a number 8 test blasting cap when unconfined;~~

~~(d) A number 8 test blasting cap is one containing two grams of a mixture of eighty percent mercury fulminate and twenty percent potassium chlorate, or a blasting cap of equivalent strength. An equivalent strength cap comprises 0.40-0.45 grams of PETN base charge pressed in an aluminum shell with bottom thickness not to exceed 0.03 of an inch, to a specific gravity of not less than 1.4 g/cc., and primed with standard weights of primer depending on the manufacturer.~~)) in one of the following classifications:

(a) **Agriculture.** To improve agricultural conditions including trenching, shaping of land (without extraction of minerals or other resources), and pest control.

(b) **Aerial blasting.** Use of explosives dispensed from aircraft for avalanche control.

(c) **Avalanche control.** Reduction of accumulated snow hazards by blasting or use of explosive ordnance.

(d) **Bomb technician.** Disposal of hazardous explosives, bombs, illegal fireworks and explosive devices by FBI trained police for public safety.

(e) **Demolition.** The controlled destruction of structures.

(f) **Explosives disposal.** Disposal of explosive materials typically damaged or degraded not originally acquired or initiated by this user (blaster).

(g) **Forestry.** Includes logging, trail building, tree topping, and forest fire activities.

(h) **Industrial ordnance.** Testing or use of explosive loaded items used for industrial, automotive safety system or aerospace purposes such as rocket motors, explosive ejection and cutting mechanisms, removal of an emplaced stoppage mechanism and other similar actions.

(i) **Seismographic.** Creating ground vibration to study the intensity, direction, and duration of a movement of the ground.

(j) **Surface blasting.** Controlled fracture of rock by explosive charges for removal in all areas which are open to the air. Includes construction, quarries, and surface mining.

(k) **Tactical entry.** Use of explosives to enter a structure by police.

(l) **Transmission systems.** The clearance of obstructions in piping or tunnels for emplacement or maintenance of electrical or communications lines.

(m) **Underground blasting.** Controlled fracture of rock by explosives under the surface of the earth for the extraction of resources or creation of a tunnel.

(n) **Underwater blasting.** Any use of explosives under the surface of a body of water emplaced by trained dive certified personnel.

(o) **Unlimited.** Includes all classifications except, tactical entry and bomb technician.

(p) **Well drilling.** The fracture of rock by small charges to clear obstructions for drilling or improve well quality.

Blasting cap or cap. When used in connection with the subject of explosives ((~~shall~~)) will mean detonator. A number 8 test blasting cap is one containing two grams of a mixture of 80 percent mercury fulminate and 20 percent potassium chlorate, or a blasting cap of equivalent strength. An equivalent strength cap comprises 0.40-0.45 grams of PETN base charge pressed in an aluminum shell with bottom thickness not to exceed 0.03 of one inch, to a specific gravity of not less than 1.4 g/cc., and primed with standard weights of primer depending on the manufacturer.

Blockholing. The breaking of boulders by firing a charge of explosives that has been loaded in a drill hole.

Buildings ((~~**that are not inhabited**~~)).

(a) **Inhabited building.** A building regularly occupied in whole or part as a habitation for human beings, or any church, schoolhouse, railroad station, store, or other structure where people are accustomed to assemble, but not including any building or structure occupied in connection with the manufacture, transportation, storage, or use of explosive materials.

(b) **Operating building.** A building utilized in conjunction with the manufacture, transportation, or use of explosive materials.

(c) **Uninhabited building.** A building(s) which has no one in it ((~~while explosives are being made up in an adjacent explosives makeup room or while explosives are being held in an adjacent day box or hand charge storage facility~~)).

Competent person. ((~~A person who:~~

~~(a)~~)) One who is capable of identifying existing ((~~hazardous and the forecasting of hazards of~~)) and predictable hazards in the surroundings or working conditions which ((~~might be~~)) are unsanitary, hazardous, or dangerous to ((~~personnel or property; and~~

~~(b)~~)) employees, and who has authorization to take prompt corrective action to eliminate ((~~such hazards~~)) them.

Consumer fireworks.

(a) Any small firework device:

(i) Designed to produce visible effects by combustion;

(ii) That must comply with the construction, chemical composition, and labeling regulations of the U.S. Consumer Product Safety Commission (Title 16 C.F.R., Parts 1500 and 1507).

(b) A small device designed to produce audible effects which include, but are not limited to:

(i) Whistling devices;

(ii) Ground devices containing 50 mg or less of explosive materials;

(iii) Aerial devices containing 130 mg or less of explosive materials.

Note: Fused set pieces containing components, which, together, exceed 50 mg of salute powder are not included.

Conveyance. Any unit used for transporting explosives or blasting agents including, but not limited to:

(a) Trucks;

(b) Trailers;

(c) Rail cars;

(d) Barges;

(e) Vessels.

Day box. A box which:

(a) ((~~Is a temporary storage facility for storage of explosive materials;~~

~~(b)~~)) Is not approved for unattended storage of explosives;

((~~(c)~~)) (b) May be used at the worksite during working hours to store explosive materials, provided the day box is:

(i) Constructed as required (WAC ((~~296-52-70065 Explosives day box~~)) 296-52-6400, Type 3 magazines);

(ii) Marked with the word "Explosives";

(iii) Used in a manner that safely separates detonators from other explosives; and

(iv) Guarded at all times against theft.

Dealer. Any person who purchases explosives or blasting agents for the sole purpose of resale and not for use or consumption.

Detonating cord. A round flexible cord containing a center core of high explosive and used to initiate other explosives.

Detonator. Any device containing any initiating or primary explosive that is used for initiating detonation and includes, but is not limited to:

(a) Electric and electronic detonators of instantaneous and delay types;

(b) Detonators for use with safety fuses, detonating cord delay connectors, and nonelectric instantaneous delay detonators which use detonating cord, shock tube, or any other replacement for electric leg wires.

Discharge hose. A hose with an electrical resistance high enough to limit the flow of stray electric currents to safe levels, but not high enough to prevent drainage of static electric charges to the ground. Hose not more than 2 ((~~megohms~~)) megaohms resistance over its entire length and of not less than 5,000 ohms per foot meets the requirement.

Display fireworks. Large fireworks designed primarily to produce visible or audible effects by combustion, deflagration, or detonation, and include, but are not limited to:

(a) Salutes containing more than 2 grains (130 mg) of explosive materials;

(b) Aerial shells containing more than 40 grams of pyrotechnic compositions;

(c) Other display pieces, which exceed the limits of explosive materials for classification as "consumer fireworks";

(d) Fused set pieces containing components, which together exceed 50 mg of salute powder.

Driller. A person in charge of a drilling rig.

Dud. An unexploded deployed charge which still has its initiation system in place.

Electric blasting circuitry. Consists of these items:

(a) **Bus wire.** An expendable wire used in parallel or series, or in parallel circuits, which are connected to the leg wires of electric detonators;

(b) **Connecting wire.** An insulated expendable wire used between electric detonators and the leading wires or between the bus wire and the leading wires;

(c) **Leading wire.** An insulated wire used between the electric power source and the electric detonator circuit;

(d) **Permanent blasting wire.** A permanently mounted insulated wire used between the electric power source and the electric detonator circuit.

Electric delay detonators. Detonators designed to detonate at a predetermined time after energy is applied to the ignition system.

Electric detonator. A blasting detonator designed for and capable of detonation by means of electric current.

Electronic detonator. A detonator that utilizes stored electrical energy as a means of powering an electronic timing delay

element/module that provides initiation energy for firing the base charge.

Employee possessor. A person delegated by a licensee, who possesses a basic knowledge of explosives handling safety, to handle, store, order, and receive explosives on the licensee's behalf.

Employee possessor list. A current list of agents who are employees of the purchaser authorized to order or receive explosives on their behalf.

Emulsion. An explosive material containing:

(a) Substantial amounts of oxidizer dissolved in water droplets, surrounded by an immiscible fuel;

(b) Droplets of an immiscible fuel surrounded by water containing substantial amounts of oxidizer.

Explosive actuated power devices. Any tool or special mechanized device, which is activated by explosives and does not include propellant actuated power devices.

Explosive actuated tactical device (EATD). Nonlethal devices containing only a low explosive fuse and/or other low explosive pyrotechnic materials used to expel smokes, irritants, aerosols, flexible projectiles, or other similar materials used to confuse or

incapacitate the target person and/or obscure the operator who placed it into action from view.

Explosive detection canine (K9) handler. A canine handler trained for explosives detection, who has also been identified to the department to handle explosives for training.

Explosives.

(a) Any chemical compound or mechanical mixture:

(i) Commonly intended or used for the purpose of producing an explosion;

(ii) That contains any oxidizing and combustible units or other ingredients in proportions, quantities or packing that an ignition by fire, friction, concussion, percussion, or detonation of any part of the compound or mixture may cause sudden generation of highly heated gases resulting in gaseous pressures capable of producing destructive effects on contiguous objects or of destroying life or limb.

(b) All material classified as Division 1.1, 1.2, 1.3, 1.4, 1.5, or 1.6 explosives by U.S. DOT;

(c) For the purposes of public consumer use, the following are not considered explosives unless they are possessed or used for a purpose inconsistent with small arms use or other legal purposes:

(i) Small arms ammunition;

(ii) Small arms ammunition primers;

(iii) Smokeless powder, not exceeding ((~~fifty~~)) 50 pounds;

(iv) Black powder, not exceeding five pounds.

(d) **High explosives.** Explosive materials which are designed to detonate when unconfined.

(e) **Low explosives.** Explosive materials which are designed to deflagrate when unconfined.

Note: Low explosives include:

1. Black powder, safety fuses, igniters, igniter cords, fuse lighters, and display fireworks defined as Division 1.2 or Division 1.3 explosives by U.S. DOT (49 C.F.R. Part 173).

2. Not bulk salutes.

(f) **Blasting agents.** Explosive materials or mixtures consisting of a fuel and oxidizer that are:

(i) Intended for blasting;

(ii) Not otherwise defined as an explosive;

(iii) As mixed for use or shipment, not able to be detonated by means of a number 8 test blasting cap when unconfined.

Explosives classifications. Explosives classifications include, but are not limited to:

(a) Division 1.1 and Division 1.2 explosives. ((~~(~~))Explosives that possess mass explosion or detonating hazard((~~)~~)):

(i) Dynamite;

(ii) Nitroglycerin;

(iii) Picric acid;

(iv) Lead azide;

(v) Fulminate of mercury;

(vi) ((~~Black powder (exceeding 5 pounds);~~

~~(vii)~~)) Detonators (in quantities of 1,001 or more);

((~~(viii)~~)) (vii) Detonating primers.

(b) Division 1.3 explosives. ((~~(~~))Explosives that possess a minor blast hazard, a minor projection hazard, or a flammable hazard((~~)~~)):

(i) Propellant explosives;

(ii) Black powder (exceeding five pounds);

(iii) Smokeless powder (exceeding ((~~fifty~~)) 50 pounds).

(c) Division 1.4 explosives((~~:~~

~~(i)~~)). Explosives that present a minor explosion hazard((~~;~~

~~(ii)~~)): Includes detonators that will not mass detonate in quantities of 1,000 or less.

(d) Division 1.5 explosives((~~:~~

~~(i)~~)). Explosives with a mass explosion hazard, but are so insensitive that there is little probability of initiation((~~;~~

~~(ii)~~)). ANFO and most other blasting agents are in this division.

(e) Division 1.6 explosives((~~, which are~~)). Explosives that are extremely insensitive and do not have a mass explosion hazard.

Explosives exemption. The exemption for small arms ammunition, small arms ammunition primers, smokeless powder, not exceeding ((~~fifty~~)) 50 pounds, and black powder, not exceeding five pounds:

(a) Applies to public consumer use only;

(b) Does not apply to the employer employee relationship covered under the Washington Industrial Safety and Health Act.

Explosives international markings.

(a) The department will accept U.S. DOT and/or ATF international identification markings on explosives and/or explosives containers or packaging;

(b) This exception is under the authority of RCW 70.74.020(3) and in lieu of Washington state designated markings (as defined by RCW 70.74.010(4) (Division 1.1, 1.2, and 1.3) and required by RCW 70.74.300).

Explosives manufacturing building. Any building or structure, except magazines:

(a) Containing explosives where the manufacture of explosives, or any processing involving explosives, is conducted;

(b) Where explosives are used as a component part or ingredient in the manufacture of any article or device.

Explosives manufacturing plant. All lands with buildings used:

(a) In connection with the manufacturing or processing of explosives;

(b) For any process involving explosives;

(c) For the storage of explosives;

(d) To manufacture any article or device where explosives are used as a component part or ingredient in the article or device.

Fireworks. Any composition or device:

(a) Designed to produce a visible or an audible effect by combustion, deflagration, or detonation;

(b) Which meets the definition of "consumer fireworks" or "display fireworks."

Forbidden or not acceptable explosives. Explosives which are forbidden or not acceptable for transportation by common carriers by rail freight, rail express, highway, or water in accordance with the regulations of the Federal Department of Transportation (DOT).

Fuel. A substance, which may react with oxygen to produce combustion.

Fuse (safety). See "safety fuse."

Fuse igniter. A special pyrotechnic device intended to be used to ignite safety fuses.

Hand charge. An explosive charge with a cap and fuse assembly inserted in place.

Hand charge facility (makeup room). A purpose built approved structure used to prepare explosive charges for avalanche control operations.

Handler. Any ((~~individual~~)) employee possessor identified by the licensed person in writing who handles explosives ((~~or~~)) (including blasting agents) for the purpose of transporting, moving, or assisting a licensed ((~~blaster~~)) person in loading, firing, blasting, or ((~~disposal~~)) disposing of explosives without direct supervision outside the company premises.

Note: This does not include employees of a licensed manufacturer engaged in manufacturing process, drivers of common carriers, or contract haulers.

Hand loader. Any person who engages in the noncommercial assembly of small arms ammunition for personal use; specifically, any person who installs new primers, powder, and projectiles into cartridge cases.

Highway. Roads, which are regularly and openly traveled by the general public and includes public streets, alleys, roads, or privately financed, constructed, or maintained roads.

Hobbyist. A private, strictly noncommercial, individual (or group) engaged in the use of energetic materials for entertainment and/or educational purposes.

Improvised device. A device, which is:

(a) Fabricated with explosives or destructive, lethal, noxious, pyrotechnic, or incendiary chemicals; and

(b) ((~~Fabricated with destructive, lethal, noxious, pyrotechnic, or incendiary chemicals, and~~)) Designed, or has the capacity to disfigure, destroy, distract, ((~~and~~)) or harass.

((~~**Inhabited building.**~~

~~(a) A building which is regularly occupied, in whole or in part, as a habitat for human beings;~~

~~(b) Any church, schoolhouse, railroad station, store, or other building where people assemble.~~

~~**Note:** This does not mean any building or structure occupied in connection with the manufacture, transportation, storage, or use of explosives.~~

~~**Low explosives.** Explosive materials, which can be caused to deflagrate when, confined. This includes black powder, safety fuses, igniters, igniter cords, fuse lighters, and display fireworks defined as Division 1.2 or Division 1.3 explosives by U.S. DOT (49 C.F.R. Part 173).~~

~~**Note:** This does not apply to bulk salutes.~~))

Law enforcement tactical entry breacher. A specially trained law enforcement officer assigned to a tactical response team licensed to use, possess, and transport explosives for tactical entry breaching operations.

Magazine. Any building, structure, or container approved for storage of explosive materials.

Note: This does not apply to an explosive manufacturing building.

Manufacturer. Any person engaged in the business of manufacturing explosive materials for purposes of sale, ((~~or~~)) distribution or for his or her own use.

EXCEPTION ((S)): The following ((~~exemptions are~~)) definition is restricted to materials and components, which are not classified (by U.S. DOT) as explosives until after they are mixed. With this restriction, the definition of manufacturer *does not* include:

((▲)) 1. Inserting a detonator into a cast booster or a stick of high explosive product to make a primer for loading into a blast hole.

((▲)) 2. The act of mixing on the blast site, either by hand or by mechanical apparatus, binary components, ammonium nitrate, fuel oil, and/or emulsion products to create explosives for immediate down blast hole delivery.

Misfire. The complete or partial failure of an explosive charge to explode as planned.

Mudcap (also known as bulldozing and dobying). Covering the required number of cartridges that have been placed on top of a boulder with a three- or four-inch layer of mud, which is free from rocks or other material that could cause a missile hazard.

Noise and flash diversionary device (NFDD). Any device designed to produce temporary nonlethal disruption of sight and hearing by the

use of an explosive pyrotechnic flash charge that produces a very loud and bright effect. Commonly called "flash-bangs."

No-light. The failure of a safety fuse to ignite.

Nonelectric delay detonator. A detonator with an integral delay element in conjunction with and capable of being detonated by a:

(a) Detonation impulse;

(b) Signal from miniaturized detonating cord;

(c) Shock tube.

Oxidizer. A substance that yields oxygen readily to stimulate the combustion of organic matter or other fuel.

Permanent magazines. Magazines that:

(a) Are fastened to a foundation;

(b) Do not exceed permanent magazine capacity limits (RCW 70.74.040);

(c) Are approved and licensed;

(d) Are left unattended.

Person. Any individual, firm, partnership, corporation, company, association, person or joint stock association or trustee, receiver, assignee, or personal representative of that entity.

((~~**Person responsible.** For an explosives magazine, means:~~

~~(a) The person legally responsible for a magazine that actually uses the magazine;~~

~~(b) The person is responsible for the proper storage, protection, and removal of explosives, and may be the owner lessee, or authorized operator.~~))

Portable (field) magazines. Magazines that are:

(a) Designed to be unattended;

(b) Not permanently fastened to a foundation;

(c) Constructed or secured to make sure they cannot be lifted, carried, or removed easily by unauthorized persons;

(d) Limited to the capacity of explosives required for efficient blasting operation;

(e) Approved and licensed.

Possess. The physical possession of explosives in one's hand, vehicle, magazine, or building.

Primary blasting. The blasting operation that dislodged the original rock formation from its natural location.

Primer. A unit, package, cartridge, or container of explosives inserted into or attached to a detonator or detonating cord to initiate other explosives ((~~or~~)) (including blasting agents).

Propellant actuated power device. Any tool, special mechanized device, or gas generator system, which is actuated by a propellant and releases and directs work through a propellant charge.

Public utility transmission systems.

(a) Any publicly owned systems regulated by:

(i) The utilities and transportation commission;

(ii) Municipalities.

(b) Other public regulatory agencies, which include:

(i) Power transmission lines over 10 kV, telephone cables, or microwave transmission systems;

(ii) Buried or exposed pipelines carrying water, natural gas, petroleum, or crude oil or refined products and chemicals.

Purchaser. Any person who buys, accepts, or receives explosives ((~~or~~)) (including blasting agents).

Pyrotechnics (commonly referred to as fireworks). Any combustible or explosive compositions or manufactured articles designed and prepared for the purpose of producing audible or visible effects.

Qualified person. A person who has successfully demonstrated the ability to solve or resolve problems relating to explosives, explosives work, or explosives projects by:

(a) Possession of a recognized degree or certificate;

(b) Professional standing;

(c) Extensive knowledge, training, and experience.

Railroad. Any type of railroad equipment that carries passengers for hire.

Responsible person. A responsible person for an explosives license:

(a) Is the person legally responsible for the license; and

(b) Directs the management or policies of the business or operations as they pertain to explosives; and

(c) Is responsible for the proper transport, storage, protection, and removal of explosives, and may be the owner, lessee, or authorized operator.

Safety fuse (for firing detonators). A flexible cord containing an internal burning medium by which fire is conveyed at a continuous and uniform rate.

Secondary blasting. Using explosives, mudcapping, or blockholing to reduce oversize material to the dimension required for handling.

Seismogram. A record produced by a seismograph.

Seismograph (blasting). A specialized instrument which measures and records the ground and air vibrations from a blast.

Seismographic blast monitoring. Use of a blasting seismograph to monitor ground and air vibrations produced by a blast.

Note: Seismographs must be used according to the International Society of Explosives Engineers (ISEE) Field Practice Guidelines for Blasting Seismographs 2015 and the seismograms generated must be displayed on U.S. Bureau of Mines Report of Investigations 8507 (USBM RI 8507) compliant curve plots.

Shock tube. A small diameter plastic tube:

(a) Used for initiating detonators;

(b) That contains a limited amount of reactive material so energy, transmitted through the tube by means of a detonation wave, is guided through and confined within the walls of the tube.

Small arms ammunition. Any shotgun, rifle, pistol, or revolver cartridge, and cartridges for propellant actuated power devices and industrial guns.

Note: This does not mean military type ammunition containing explosive bursting incendiary, tracer, spotting, or pyrotechnic projectiles.

Small arms ammunition primers. Small percussion sensitive explosive charges ((~~encased~~)) cased in a ((~~detonator~~)) cap or capsule and used to ignite propellant ((~~power or percussion detonators used in muzzle loaders~~)) powder.

Smokeless powder. Solid ((~~chemicals or solid chemical mixtures that function by rapid combustion~~)) propellants, commonly referred to as smokeless powders, used in small arms ammunition, cannons, rockets, or propellant-actuated devices.

Special industrial explosive devices. Explosive actuated power devices and propellant-actuated power devices.

Special industrial explosives materials. Shaped materials and sheet forms and various other extrusions, pellets, and packages of high explosives, which include:

(a) Dynamite;

(b) Trinitrotoluene (TNT);

(c) Pentaerythritol tetranitrate (PETN);

(d) Hexahydro-1, 3, 5-trinitro-s-triazine (RDX);

(e) Other similar compounds used for high-energy-rate forming, expanding, and shaping in metal fabrication, and for dismemberment and quick reduction of scrap metal.

Springing. The creation of a pocket in the bottom of a drill hole by the use of a moderate quantity of explosives so that larger quantities of explosives may be inserted.

Sprung hole. A drilled hole that has been enlarged by a moderate quantity of explosives to allow for larger quantities of explosives to be inserted into the drill hole.

Stemming. A suitable inert incombustible material or device used to confine or separate explosives in a drill hole or cover explosives in mudcapping.

Trailer. Semi-trailers or full trailers, as defined by U.S. DOT, which are:

(a) Built for explosives;

(b) Loaded with explosives;

(c) Operated in accordance with U.S. DOT regulations.

U.S. DOT. The United States Department of Transportation.

User. See "blaster."

User's license. See "blaster's license."

Vehicle. Any car, truck, tractor, semi-trailer, full trailer, or other conveyance used for the transportation of freight.

Water-gels or emulsion explosives. These explosives:

(a) Comprise a wide variety of materials used for blasting. Two broad classes of water-gels are those which:

(i) Are sensitized by material classed as an explosive, such as TNT or smokeless powder;

(ii) Contain no ingredient classified as an explosive which is sensitized with metals, such as aluminum, or other fuels.

(b) Contain substantial proportions of water and high proportions of ammonium nitrate, some ammonium nitrate is in the solution in the water, and may be mixed at an explosives plant, or the blast site immediately before delivery into the drill hole.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-099, filed 8/1/17, effective 9/1/17.]

NEW SECTION

WAC 296-52-1000 Implementation of the Washington State Explosives Act. This chapter places into effect the Washington State Explosives Act (chapter 70.74 RCW).

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NEW SECTION

WAC 296-52-10010 Purpose and intent. The purpose of this chapter is to define minimum requirements for the prevention and control of hazards related to the possession, handling, and use of explosives in order to:

(1) Protect the safety and health of the general public.

(2) Protect the safety and health of explosive industry employees covered under the Washington Industrial Safety and Health Act (chapter 49.17 RCW).

(3) Develop, support, and maintain safe and healthy use of explosives in Washington state.

[]

NEW SECTION

WAC 296-52-10020 Coverage. This chapter applies to:

(1) Any person, partnership, company, corporation, government agency, or other entity;

(2) All aspects of explosives (including blasting agents) and display pyrotechnics including:

(a) Manufacture;

(b) Sale;

(c) Possession;

(d) Purchase;

(e) Use;

(f) Storage;

(g) Transportation;

(h) Avalanche control;

(3) Storage of display fireworks.

[]

NEW SECTION

WAC 296-52-10030 Exemptions. (1) The following are exempt from this chapter:

(a) Explosives (including blasting agents) transported by railroad, water, highway, or air under the jurisdiction of the Federal Department of Transportation (DOT), the Washington state utilities and transportation commission, and the Washington state patrol;

(b) Laboratories of schools, colleges, and similar institutions if confined to the purpose of instruction or research and if the quantity does not exceed one pound;

(c) Explosives in the forms prescribed by the official United States Pharmacopoeia;

(d) The transportation, storage, and use of explosives (including blasting agents) in the normal and emergency operations of:

(i) The United States agencies and departments including the regular United States military departments on military reservations;

(ii) Arsenals, navy yards, depots, or other establishments owned by, operated by, or on behalf of, the United States;

(iii) The duly authorized militia of any state;

(iv) The emergency operations of any state department or agency, any police, or any municipality or county;

(e) A hazardous devices technician when they are carrying out:

(i) Normal and emergency operations;

(ii) Handling evidence;

(iii) Operating and maintaining a specially designed emergency response vehicle that carries no more than 10 pounds of explosive materials;

(iv) When conducting training and whose employer possesses the minimum safety equipment prescribed by the Federal Bureau of Investigation (FBI) for hazardous devices work;

(f) The importation, sale, possession, and use of fireworks, signaling devices, flares, fuses, and torpedoes;

(g) Any violation under this chapter if any existing ordinance of any city, municipality, or county is more stringent;

(h) The transportation, storage, and use of explosive actuated tactical devices, including noise and flash diversionary devices and explosives/detonators for tactical breaching operations by local law enforcement tactical response teams and officers in law enforcement department-issued vehicles designated for use by tactical response

teams and officers, provided the explosive devices are stored and secured in compliance with Part I of this chapter;

(i) Noncommercial military explosives. Storage, handling, and use of noncommercial military explosives while they are under the control of the United States government or military authorities;

(j) Consumer fireworks. Fireworks classified as Division 1.4 explosives by U.S. DOT and regulated through the state fireworks law (chapter 70.77 RCW) and the fireworks administrative rules (chapter 212-17 WAC) by the Washington state fire marshal.

(2) Partial exemption - Division 1.1, 1.2, or 1.3 display fireworks. Display fireworks are fireworks classified as Division 1.1, 1.2, or 1.3 explosives by U.S. DOT. Users of Division 1.1, 1.2, or 1.3 display fireworks must comply with all storage or storage related requirements (for example, licensing, construction, and use) of this chapter.

(3) Conditional exemption small arms explosive materials. Public consumers possessing and using:

(a) Black powder, under five pounds;

(b) Smokeless powder, under 50 pounds;

(c) Small arms ammunition;

(d) Small arms ammunition primers. Unless these materials are:

(i) Possessed in violation of WAC 296-52-7205 or 296-52-72110; or

(ii) Used illegally; or

(iii) For a purpose inconsistent with small arms use;

(e) Black powder, under five pounds, for the use by pyrotechnic operators licensed under chapter 212-17 WAC;

(f) Explosives for hobbyist use where used on the property where they were manufactured, must comply with all storage and storage related requirements of this chapter.

(4) Partial exemption - Commercial retailers of Division 1.3 smokeless powder. Smokeless powder is classified as a Division 1.3 explosive by U.S. DOT and is not regulated as an explosive by ATF. Commercial retailers of Division 1.3 smokeless powder are exempt from the following licensing requirements:

(a) Dealer licensing (if the retailer does not sell quantities exceeding 50 pounds in a transaction);

(b) Purchaser licensing.

(5) Partial exemption - Commercial retailers of smokeless powder must comply with all storage or storage related requirements (for example, licensing, construction, and use) of this chapter with the exception of the sections mentioned below:

(a) Entry and access to explosives areas: An employee of a smokeless powder retailer who has complied with RCW 9.41.110 (5)(b) is allowed access to licensed storage magazines used strictly for the storage of smokeless powder and meets the requirement of WAC 296-52-13010 for an owner's authorized agent.

(b) Retailers of smokeless powder are exempt from WAC 296-52-20010 (2)(a).

(c) Employee possessors: An employee of a smokeless powder retailer who has complied with RCW 9.41.110 (5)(b) will be exempt from the requirements of WAC 296-52-20090.

[]

STATE AND LOCAL GOVERNMENT JURISDICTIONS

NEW SECTION

WAC 296-52-1100 The department. (1) Administration and enforcement. The director of labor and industries administers and enforces all activities governed by the Washington State Explosives Act through this chapter using the full resources of the department.

(2) Authority to enter, inspect, and issue penalties. The department may enter and inspect any location, facility, or equipment

and issue penalties for any violation whenever the director has reasonable cause to think there are:

(a) Explosives (including blasting agents);

(b) Explosive materials.

(3) Unlicensed activities. Whenever the director requests an unlicensed person to surrender explosives, improvised devices, or their component parts, he or she may request the attorney general to apply to the county superior court in which the illegal practice was carried out for a temporary restraining order or other appropriate assistance.

[]

NEW SECTION

WAC 296-52-11010 Other government entities. (1) Law enforcement authorities. The department:

(a) Acknowledges the legal obligation of other law enforcement agencies to enforce specific aspects or sections of the Washington State Explosives Act under local ordinances and with joint and shared authority granted by RCW 70.74.201;

(b) Will cooperate with all other law enforcement agencies in carrying out the intent of the Washington State Explosives Act and this chapter.

(2) Local government authorities.

(a) This chapter does not prevent local jurisdictions from adopting and administering local regulations relating to explosives. Examples of local jurisdictions/regulations include:

(i) City or county government explosive ordinances;

(ii) Other government authorities such as the Washington utilities and transportation commission, the Washington state patrol, or the Washington Administrative Code.

(b) Local regulations must not diminish or replace any regulation of this chapter.

Note: A nonmandatory sample-blasting ordinance for local jurisdictions is included in WAC 296-52-9991, Appendix A.

[]

BASIC LEGAL OBLIGATIONS

NEW SECTION

WAC 296-52-1200 Responsibility to obtain an explosives license. Anyone manufacturing, purchasing, selling, offering for sale, using,

possessing, transporting, or storing any explosive, improvised device, or components intended to be assembled into an explosive or improvised device must have a valid license issued by the department.

[]

NEW SECTION

WAC 296-52-12010 Unlicensed activities. Upon notice from the department or any law enforcement agency having jurisdiction, an unlicensed person manufacturing, offering for sale, selling, possessing, purchasing, using, storing, or transporting any explosives, improvised device, or components of explosives or improvised devices must immediately surrender those explosive materials to the department or the law enforcement agency having jurisdiction.

[]

NEW SECTION

WAC 296-52-12020 Drug use. Explosives must not be handled by anyone under the influence of:

(1) Alcohol;

(2) Narcotics;

(3) Prescription drugs and/or narcotics that endanger the worker or others;

(4) Other dangerous drugs.

Note: This chapter does not apply to persons taking prescription drugs and/or narcotics as directed by a physician provided their use will not endanger the user (blaster), workers, or any other people.

[]

NEW SECTION

WAC 296-52-12030 License revocation, suspension, and surrender.

(1) Revocation. The department:

(a) Will revoke and not renew the manufacturer, dealer, purchaser, user (blaster), or storage license of any person as a result of a disqualifying condition identified in WAC 296-52-61040, applicant disqualifications;

(b) May revoke the license of any person who has:

(i) Repeatedly violated the requirements of this chapter;

(ii) Had a license suspended twice under this chapter.

(2) Suspension. The department may suspend the license of any person for a period up to six months for any violation of this chapter.

(3) Surrender. Revoked or suspended licenses must be surrendered immediately to the department after the chapter violators have been notified.

[]

NEW SECTION

WAC 296-52-12040 Violation appeals. An appeal of a citation, issued for a violation of a requirement of this chapter, which results in a license suspension or revocation (WAC 296-52-60060) may be filed with the department.

[]

BASIC HAZARD PRECAUTIONS

NEW SECTION

WAC 296-52-1300 Hazards to life. Explosives (including blasting agents) must not be stored, handled, or transported if they could create a hazard to life.

[]

NEW SECTION

WAC 296-52-13010 Entry and access to explosive areas. Only the owner, owner's authorized agent, the director, or law enforcement officer(s) acting in an official capacity may enter into:

(1) An explosives manufacturing building;

(2) A magazine storing explosives;

(3) A vehicle transporting explosives;

(4) Any other common carrier containing explosives.

[]

NEW SECTION

WAC 296-52-13020 Abandonment of explosives. Explosives or improvised devices must not be abandoned.

[]

NEW SECTION

WAC 296-52-13030 Firearms. Firearms cannot be discharged at or against any:

(1) Magazine;

(2) Explosives manufacturing building;

(3) Explosives material.

[]

NEW SECTION

WAC 296-52-13040 Fire. (1) Magazines/buildings. Flame or flame producing devices must not be ignited within 50 feet of any magazine or explosives manufacturing building.

(2) Explosives handling.

(a) All sources of fire or flame, including smoking and matches, are prohibited within 100 feet of the blast site while explosives are being handled or used.

(b) Explosives must not be handled near:

(i) Open flames;

(ii) Uncontrolled sparks; or

(iii) Energized electric circuits.

(3) Fire incident precautions. In the event of a fire:

(a) All employees must be removed to a safe area;

(b) The fire area must be guarded against intruders;

(c) The fire must not be fought where there is danger of contact with explosives.

[]

NEW SECTION

WAC 296-52-13050 Daylight blasting. Blasting operations should be conducted during daylight hours whenever possible.

[]

NEW SECTION

WAC 296-52-13060 Notification—Blasting near utilities. Whenever blasting is being conducted in the vicinity of gas, electric, water, fire alarm, telephone, fiber optic, and steam utilities, the blaster in charge must notify appropriate utility representatives:

(1) At least 24 hours in advance of blasting;

(2) Of the specific location and intended time of blasting; and

(3) Confirm the verbal notice with a written notice.

[]

MISCELLANEOUS MANUFACTURING, VARIANCE, AND USE OF OTHER STANDARDS

NEW SECTION

WAC 296-52-1400 Explosive industry employers. In addition to the requirements of this chapter:

(1) Explosive industry employers must comply with other applicable DOSH requirements:

(a) Chapter 296-800 WAC, Safety and health core rules;

(b) Chapter 296-24 WAC, General safety and health standards;

(c) Chapter 296-62 WAC, General occupational health standards;

(d) Chapter 296-155 WAC, Safety standards for construction work;

(e) Other industry specific standards that may apply.

(2) Manufacturing employers of explosives or pyrotechnics must comply with chapter 296-67 WAC, Safety standards for process safety management of highly hazardous chemicals.

[]

NEW SECTION

WAC 296-52-14010 Variance from a chapter requirement. The director may approve a variance from a chapter requirement pursuant to RCW 49.17.080 or 49.17.090:

(1) After an application for a variance is received;

(2) After the department has conducted an investigation;

(3) When conditions exist that make the requirement impractical to use; and

(4) When equivalent means of protection are provided.

Note: Variance application forms may be obtained from and should be submitted to:

Department of Labor and Industries
DOSH-Standards and Technical Services Division
P.O. Box 44650
Olympia, WA 98504-4650
Email: ExplosivesLicensing@Lni.wa.gov

[]

NEW SECTION

WAC 296-52-14020 Using standards from national organizations and federal agencies. To be in compliance with DOSH rules, the information provided in this section must be followed when safety and health standards from national organizations and federal agencies are referenced in DOSH rules.

(1) The edition of the standard specified in the DOSH rule must be used.

(2) Any edition published after the edition specified in the DOSH rule may be used.

Note: The federal and national consensus standards referenced in the DOSH rules are available through the issuing organization and the local or state library.

[]

PART B

LICENSING

NEW SECTION

WAC 296-52-2000 Types of explosive licenses.

Type of License	Where to Look for Requirements
Dealer's	WAC 296-52-2100
Purchaser's	WAC 296-52-2200
User's (Blaster's)	WAC 296-52-2300
Manufacturer's	WAC 296-52-2400
Storage	WAC 296-52-2500

[]

NEW SECTION

WAC 296-52-20010 License applicants must provide this information. (1) Individual applicants must provide the following information to the department:

(a) Name; and

(b) Address; and

(c) Social security number (RCW 26.23.150); and

(d) Date of birth; and

(e) Phone number; and

(f) Driver's license or state identification number.

(2) A partnership, association or corporation must provide:

(a) The name and address for each owner/partner in the case of partnership, or corporate officer responsible for the explosives;

(b) The information required in subsection (1) of this section of the proposed responsible person.

(3) Applicants must:

(a) Meet any license specific requirements;

(b) Provide any information requested by the department to include a valid explosive license or permit issued by the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) (if required).

(4) The department will verify license application or renewal statements before an explosives license is issued.

[]

NEW SECTION

WAC 296-52-20020 License applicants must complete department forms. (1) Applications must be completed on department forms.

(2) License application forms may be obtained from https://lni.wa.gov/licensing-permits/other-licenses-permits/explosives-licensing and submitted to:

Department of Labor and Industries Explosives Licensing

P.O. Box 44655

Olympia, WA 98504-4655

or

email: ExplosivesLicensing@lni.wa.gov

Note: License applications may also be obtained from department service locations. A complete list of labor and industries service locations may be found at www.lni.wa.gov.

[]

NEW SECTION

WAC 296-52-20030 License fees. Applicable license fees must be included with new explosives license applications for all licenses except storage. Storage license fees will be billed upon confirmation of storage amounts by inspection.

Table B-1

Type of License	Fee
Dealer's License	50.00
Purchaser's License	25.00
User's (Blaster's) License	50.00
Manufacturer's License	50.00
Storage License	(See table below)

Table B-2

Explosive Materials **STORAGE LICENSE FEES** *RCW 70.74.140 applies*			
EXPLOSIVES **Maximum Weight (pounds)** of explosives permitted in each magazine.	**DETONATORS** **Maximum Number** of detonators permitted in each magazine or mobile site.	**FEE** (for each magazine or mobile site)	
		Annual	**Permanent Storage License for Two Years**
200	133,000	50.00	100.00
1,000	667,000	125.00	250.00
5,000	3,335,000	175.00	350.00
10,000	6,670,000	225.00	450.00
50,000	33,350,000	300.00	600.00
300,000	200,000,000	375.00	750.00

Note: License fees will not be refunded when a license is revoked or suspended for cause.

[]

NEW SECTION

WAC 296-52-20040 Applicant participation. Applicants must:

(1) Cooperate and assist the department in all aspects of the application review;

(2) Provide all information requested by the department to:

(a) Verify application statements;

(b) Help with any questions;

(3) Furnish their fingerprints to the department.

Fingerprinting and criminal history record information checks are required for management officials directly responsible for explosives operations;

(4) Pay the fee to the department for processing the fingerprint card (RCW 70.74.360(1)).

[]

NEW SECTION

WAC 296-52-20050 Criminal records. The Washington state patrol will provide any criminal records to the director upon request.

[]

NEW SECTION

WAC 296-52-20060 Reasons why applicants may be disqualified. (1) Licenses will not be issued for the manufacture, retail sale, or purchase of explosives to any applicant who is any of the following:

(a) Under 21 years of age;

(b) Convicted in this state or elsewhere of:

(i) A violent offense as defined in RCW 9.94A.030;

(ii) Perjury, false swearing, or bomb threats;

(iii) A crime involving a Schedule I or II controlled substance, or any other drug or alcohol related offense, unless such other drug or alcohol related offense does not reflect a drug or alcohol dependency;

(c) Legally determined at the time of application to be:

(i) Mentally ill;

(ii) Insane;

(iii) Committed to a mental institution;

(iv) Incompetent due to any mental disability or disease at the time of application;

Note: The department will not reissue a license until competency has been legally restored.

(d) Whose license is suspended or revoked, except as provided in this section;

(e) Does not provide proof of a valid explosive license or permit issued by the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF).

(2) A license will not be issued if the applicant is denied a receiver or employee possessor designation by ATF.

[]

NEW SECTION

WAC 296-52-20070 License terms. All licenses, including storage licenses, are valid for one year from the date of issue, unless revoked or suspended by the department prior to the expiration date.

[]

NEW SECTION

WAC 296-52-20080 License renewal. An explosives license must be renewed and fees paid before the expiration date of the license.

[]

NEW SECTION

WAC 296-52-20090 Employee possessor information. (1) Any licensee must provide a list of people authorized to act on their behalf (including licensed users (blasters)) with regards to explosives with the following information:

(a) Name; and

(b) Address; and

(c) Social Security number (as required by RCW 26.23.150); and

(d) Place of birth; and

(e) Date of birth; and

(f) Driver's license number or other valid state issued identification;

(g) The ATF permit listing the person as an employee possessor.

(2) Licensees must notify any dealer they plan to purchase or order explosive materials from, of their employee possessors prior to placing the order.

Notes: For organizations not subject to ATF oversight, employee possessors must be cleared by L&I.

Employees working in retail small arms smokeless powder establishments performing sales only at the store do not meet the definition of employee possessors.

(3) Handlers are employee possessors who are not users (blasters) and physically handle explosives with no supervision. They must be identified in writing to the department. Handlers must be trained in the following subjects and records maintained for the duration of employment:

(a) Introduction to explosives:

(i) Types of explosives;

(ii) Characteristics of explosives;

(iii) Explosive effects;

(b) Explosive safety:

(i) Physical and environmental hazards;

(ii) Industry specific safety procedures;

(c) Explosive rules and regulations (as applicable):

(i) State and local requirements;

(ii) Bureau of Alcohol, Tobacco, Firearms and Explosives (BATFE) requirements;

(iii) OSHA/MSHA requirements;

(iv) EPA requirements;

(v) Explosive handler license requirements and restrictions;

(vi) Transportation of explosives;

(vii) Storage of explosives;

(viii) Explosive magazine inventory;

(d) Retraining must be performed for any handler who is observed in any of the following:

(i) Unsafely handling explosives;

(ii) Violating local, state, or federal regulations.

(4) Licensees must make sure the dealer's and department's employee possessor lists are updated as changes occur, within 30 business days of change, but before any transaction occurs involving the employee possessor.

[]

DEALER'S LICENSE

NEW SECTION

Commented [CCJ(1]: With things "moved around," the definition of the acronym now on page 221. Propose using here and keep in both locations, or, moving to the first instance of BATFE.

WAC 296-52-2100 Responsibility to obtain a dealer's license. Any person, firm, partnership, corporation, or public agency wanting to purchase and/or manufacture explosives (including black powder and blasting agents) for resale, must have a valid dealer's license issued by the department and a valid license or permit issued by the ATF.

[]

NEW SECTION

WAC 296-52-21010 Dealer applicant information. The dealer applicant must provide the following in addition to the information in WAC 296-52-20010:

(1) Give the reason they want to participate in the business of dealing in explosives.

(2) Provide other pertinent information required by the department.

[]

NEW SECTION

WAC 296-52-21020 Prohibit explosives items from sale or display in these areas. Explosives (including blasting agents) and improvised devices cannot be sold, displayed, or exposed for sale on any:

(1) Highway;

(2) Street;

(3) Sidewalk;

(4) Public way; or

(5) Public place.

[]

NEW SECTION

WAC 296-52-21030 Container labeling. Any package, cask, or can containing any explosive, nitroglycerin, dynamite, or black and/or smokeless powder put up for sale or delivered to any warehouse worker, dock, depot, or common carrier, must be properly labeled with its explosive classification.

[]

NEW SECTION

WAC 296-52-21040 Verification of customer identity. (1) Orders.

(a) An order for explosives can be placed:

(i) In person;

(ii) By telephone; or

(iii) In writing (including electronic mail).

(b) The dealer must receive proper authorization and identification from the person placing the order to verify the person is either the:

(i) Purchaser; or

(ii) Purchaser's verified employee possessor.

Note: This requirement does not apply to licensed common carrier companies when the common carrier:
1. Is transferring explosive materials from the seller to the purchaser; and
2. Complies with the transfer practices of the state and federal U.S. DOT regulations.

(2) Deliveries. The dealer must:

(a) Not distribute explosive materials to an unauthorized person;

(b) Make sure the recipient is the purchaser or the purchaser's employee possessor;

(c) Verify the recipient's identity from a photo identification card (for example, driver's license);

(d) Obtain the:

(i) Purchaser's magazine license number when explosives are delivered to a storage magazine;

(ii) Legal signature of the purchaser or the purchaser's employee possessor on a receipt documenting the explosives were received.

[]

NEW SECTION

WAC 296-52-21050 Recordkeeping and reporting. (1) A dealer's record must include the following:

(a) Date explosive materials were sold;

(b) Purchaser's name and license number;

(c) Name of the person who physically received the explosive materials, who must be an employee possessor of the purchaser;

(d) Kind of explosive materials sold;

(e) Amount of explosive materials sold;

(f) Date code;

(g) Location of delivery identified by city and zip code at minimum.

Note: Black powder sales less than five pounds are not required to be reported to the department.

(2) Retention of records and receipts. Dealers must keep:

(a) Signed receipts for a minimum of one year from the date explosives were purchased;

(b) Records of explosives purchased and sold for a minimum of five years.

(3) Monthly report.

(a) A monthly report of the dealer's records must be submitted to the department at the following address:

Department of Labor and Industries Explosives Licensing

P.O. Box 44655

Olympia, WA 98504-4655

or

email: ExplosivesLicensing@lni.wa.gov

(b) Dealer records must be received by the 10th day of each month.

[]

NEW SECTION

WAC 296-52-21060 Responsibility to obtain a purchaser license for services. Dealers purchase and/or manufacture explosives for the purpose of resale. Explosives leaving a dealer must have a transaction associated. For this reason if a dealer also offers explosives use (shot) services they must maintain a separate license to purchase, and

their employees performing the services will act as purchasers for the transaction.

[]

PURCHASER'S LICENSE

NEW SECTION

WAC 296-52-2200 Responsibility to obtain a purchaser's license. Any person, firm, partnership, corporation, or public agency wanting to purchase explosives (including blasting agents) must have a valid purchaser's license or permit issued by the department and a valid license issued by the ATF.

[]

NEW SECTION

WAC 296-52-22010 Applicant information. Applicants must provide the following information to the department in addition to the information in WAC 296-52-20010:

(1) The reason explosives will be used;

(2) The location where explosives will be used;

(3) The kind of explosives to be used;

(4) The amount of explosives to be used;

(5) An explosives storage plan:

(a) Documenting proof of ownership of a licensed storage magazine; or

(b) With a signed authorization to use another person's licensed magazine; or

(c) With a signed statement certifying that the explosives will not be stored and a contingency storage agreement in the event of need to store due to unforeseen problems;

(6) An employee possessor list meeting the standards of WAC 296-52-20090 if the purchaser chooses to authorize others to order or receive explosives on their behalf;

(7) The identity and current license of the purchaser's user's (blasters) and employee possessors.

[]

NEW SECTION

WAC 296-52-22020 Explosive order deliveries. (1) Receiver identification. Any person receiving explosives purchased from a dealer must:

(a) Provide proper identification and prove to the satisfaction of the dealer that they are:

(i) The purchaser; or

(ii) The purchaser's employee possessor.

(b) Sign their legal signature on the dealer's receipt.

(2) Delivery locations. Explosives must be delivered into:

(a) Authorized magazines; or

(b) Approved temporary storage; or

(c) Handling areas.

[]

USER'S (BLASTER'S) LICENSE

NEW SECTION

WAC 296-52-2300 Responsibility to obtain a user's (blaster's) license. (1) No one may conduct a blasting operation without a valid user's (blaster's) license issued by the department.

(2) User's (blaster's) license classifications table. The following information shows classifications for blasting licenses:

(a) Classification list assignment. Classification list assignment is determined by the use of single or multiple series charges; and the knowledge, training, and experience required to perform the type of blasting competently and safely.

(b) Multiple list applications. When an applicant wants to apply for multiple classifications and the classifications desired are from two or more classification table lists:

(i) All classifications must be requested on the application;

(ii) Qualifying documentation for all classifications being applied for must be included in the applicant's training and experience history certification (WAC 296-52-23030, Applicant additional information). Training and experience may fulfill qualification requirements in multiple classifications.

(c) Request classifications not lists. Applicants must request specific classifications (not list designations) on their user (blaster) application. Licenses are not issued or endorsed for Classification Table Lists A, B, or C.

(d) License additions. To add a classification to an existing license, see WAC 296-52-23055, Changes to a license classifications.

Table B-3 License Classifications					
LIST A		LIST B		LIST C	
AG	Agriculture	AB	Aerial Blasting	BT	Bomb Technician*
AV	Avalanche Control	DE	Demolition	UL	Unlimited*
ED	Explosives Disposal*	SB	Surface Blasting*		
FO	Forestry*	UB	Underground Blasting		
IO	Industrial Ordnance	UW	Underwater Blasting		
SE	Seismographic				
TS	Transmission Systems				
WD	Well Drilling				
TE	Tactical Entry				

* Detailed classification information of each explosives use type can be found in definitions under user's (blaster's) license.

[]

NEW SECTION

WAC 296-52-23010 General qualifications. (1) Physical conditions. Explosives users who possess a Washington state user's license are personally responsible to refrain from handling and/or using explosives if they become aware of health conditions which may adversely affect their functional ability to safely handle and/or use explosives. In addition, users must also report any health disorder which may adversely affect their functional ability to safely handle and/or use explosives directly to the Washington state department of labor and industries explosives licensing department. Applicants cannot have underlying physical, mental, or emotional conditions which

would adversely affect their functional ability to safely handle and/or use explosives. Applicants must:

(a) Attest to the status of their current condition(s), that they have not been made aware of any condition(s) which would adversely affect their functional ability to safely handle and/or use explosives; or

(b) If there is a potentially unsafe physical, mental, or emotional condition:

(i) Applicants must seek a licensed medical treatment provider's opinion assessing their functional ability to safely handle and/or use explosives; and

(ii) Provide a licensed medical treatment provider's evaluation (in writing) that states the applicant's underlying physical, mental, or emotional conditions will not adversely affect their functional ability to safely handle and/or use explosives.

Notes: Functional ability may be affected by conditions that are persistent or chronic (long-term conditions, not short-term conditions such as pneumonia, a broken limb, minor burns, or similar conditions) and have ongoing impact to the functions which affect the ability to safely handle and/or use explosives.

Changes in functional ability (physical condition):

a. The licensed explosive user (blaster) does not need to report short-term illnesses or abnormalities lasting less than three months to the explosives licensing department provided they refrain from all explosives handling and/or use until recovery to the previous level of function for which they were licensed.

b. When a condition persists beyond three months or it becomes apparent that it will become permanent, it must be reported to the explosives licensing department.

c. The licensee must provide certification from a licensed medical treatment provider before the department will revalidate a user's license.

A nonmandatory sample format of the letter for a licensed medical treatment provider to send is provided in Appendix D.

(2) Drug use. Applicants cannot be addicted to narcotics, intoxicants, or similar types of drugs.

Note: This chapter does not apply to persons taking prescription drugs and/or narcotics as directed by a licensed medical treatment provider provided their use will not endanger the user (blaster), workers, or any other people.

(3) Applicants must have knowledge and experience in the transportation, storage, handling and use of explosives witnessed and certified by a licensed user (blaster) or instructor. This knowledge must include:

(a) Working knowledge of federal, state, and local explosives laws and regulations; and

(b) Adequate training in the blasting skill applied for to competently and safely perform all functions; and

(c) Recognize hazardous conditions; and

(d) Have the ability to understand and give written and oral directions.

[]

NEW SECTION

WAC 296-52-23015 List A qualifications. Applicants must have a minimum of 40 hours documented training accrued during the previous

six years, which includes a minimum of one of these three requirements:

(1) Eight hours basic user (blaster) safety classroom training and 32 hours classification specific field training experience under a qualified user (blaster);

(2) Sixteen hours basic user (blaster) safety classroom training and 24 hours classification specific field training experience under a qualified user (blaster);

(3) Twelve months classification specific field training experience.

Note: Law enforcement officers seeking an LE specific license must also comply with licensing requirements in Part I.

[]

NEW SECTION

WAC 296-52-23020 List B qualifications. To be considered for a user's (blaster's) license, which includes one or more List B classifications, the applicant must meet one of the following requirements listed below:

(1) Eighteen months of documented blasting experience which includes a minimum of 12 months of documented experience in List A and

six months documented blasting experience in each classification being applied for in List B; or

(2) Twelve months of documented blasting experience in the past six years in the specific classification being applied for in List B.

Note: Up to 80 hours of classroom training may be substituted for experience.

(3) Aerial blasting classification:

(a) Standard avalanche control user's (blaster's) license; and

(b) Eight hours of classroom training and four aerial blasting missions under the supervision of a licensed aerial user (blaster); or

(c) Sixteen hours of classroom training and three aerial blasting missions under the supervision of a licensed aerial user (blaster); and

(d) Successful completion of a written exam.

Note: Licensed avalanche control user's (blaster's) onboard and assisting a licensed aerial user (blaster) during a mission may log each mission toward the aerial user (blasting) endorsement experience requirement.
WAC 296-52-23025, List C qualifications.

[]

NEW SECTION

WAC 296-52-23025 List C qualifications. (1) **Unlimited classification.** To be considered for unlimited classification, the

applicant must submit a detailed training and experience history documenting:

(a) Experience in the majority of the classifications in Lists A and B; and

(b) A minimum of five years of continuous full time blasting experience in the explosives industry where blasting has been the applicant's primary responsibility during the previous five years.

(2) **Bomb technician.** To be considered for a bomb technician classification, the applicant must submit a copy of their:

(a) Certificate of graduation from the FBI Hazardous Devices School (HDS) basic course in Redstone, Alabama.

(b) FBI Bomb Technician Certification identification card. The FBI Bomb Technician Certification card must bear a date that indicates that it is current at the time of application.

(c) Signed letter from the applicant's law enforcement agency's head (chief or sheriff) stating that the applicant is a full-time employee assigned to perform bomb technician duties as part of an FBI accredited bomb squad.

[]

NEW SECTION

WAC 296-52-23030 Applicant additional information. An applicant for a user's (blaster's) license must provide the following information to the department:

(1) The application must be signed by the blasting course instructor and/or the qualified user (blaster) the applicant trained under;

(2) A detailed resume of blasting training and experience;

(3) Satisfactory evidence of competency in handling explosives.

Information required by WAC 296-52-61010, License applicants must provide this information.

Note: The department may request additional information for the classification being applied for upon review of a user's (blaster's) resume.

[]

NEW SECTION

WAC 296-52-23035 License testing. List A and B applicants must pass a written test prepared and administered by the department. List C applicants are exempt from testing.

[]

NEW SECTION

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WAC 296-52-23040 License limits. (1) A user's (blaster's) license documents:

(a) The classifications the user (blaster) is authorized to perform;

(b) Any limitations imposed on the licensee.

(2) The licensee cannot:

(a) Perform blasting for which they are not licensed; or

(b) Exceed the limits specified on the license.

[]

NEW SECTION

WAC 296-52-23045 Disclosure of license. A user (blaster) must provide their user's (blaster's) license and a valid identification card to the department or other law enforcement representatives upon request.

[]

NEW SECTION

WAC 296-52-23050 Purchaser verification. A user (blaster) may be required to verify the name of the explosives purchaser.

[]

NEW SECTION

WAC 296-52-23055 Changes to license classifications. Additional user (blaster) classifications may be added to a license by application. Applicants must:

(1) Submit a detailed training and experience history specific to the classification being applied for; and

(2) Pass a written exam prepared and administered by the department.

[]

NEW SECTION

WAC 296-52-23060 List A and B renewal. The following requirements for List A and B renewal qualifications must be accrued during the year before renewal:

(1) License renewal must include documentation of:

(a) Blasting experience, by providing a minimum of one blast record; or

(b) Successful completion of eight hours of basic user's (blaster's) classroom training. The blasting course instructor must witness the submitted documentation.

(2) List A or B licensees who have not renewed their license for over one year must pass a written exam administered by the department.

[]

NEW SECTION

WAC 296-52-23065 List C renewal. The following are requirements for List C renewal:

(1) **Unlimited classification.** To be considered for a renewal of an unlimited license, the licensee must demonstrate they have maintained full-time blasting experience in the explosives industry, where blasting has been their primary responsibility during the last year.

(2) **Bomb technician.** To renew the bomb technician classification, a licensee must:

(a) Have continuous employment as a law enforcement bomb technician during the previous year;

(b) Submit a copy of their FBI bomb technician certification identification card bearing the name of the person and an expiration date that indicates that the card is current and valid as of the date of renewal;

(c) Submit a letter from the applicant's law enforcement agency's head (chief or sheriff) stating that the licensee is a full-time employee assigned to perform bomb technician duties as part of an FBI accredited bomb squad.

Note: If the licensee's bomb technician certification identification card has expired at the time of renewal, they need to show that they are enrolled in the next available course at Redstone, Alabama.

[]

NEW SECTION

WAC 296-52-23070 Physical condition recertification. Explosives users must meet all requirements in WAC 296-52-23010, General qualifications to renew any user's license. Licensees renewing any user's license must:

(1) Attest to the status of their current condition in keeping with the requirements in WAC 296-52-23010(1) upon renewal; or

(2) Notify the department of any change to their physical, mental, or emotional condition which would adversely affect their

functional ability to safely handle and/or use explosives that occurs between renewals; and

(3) Provide a licensed medical treatment provider's evaluation that the change(s) in physical, mental, or emotional condition will not adversely affect their functional ability to safely handle and/or use explosives as provided in WAC 296-52-23010(1).

Notes: It is the licensee's responsibility to notify the department if they have, or develop, or suspect that they have developed a physical, mental, or emotional impairment that may adversely affect their functional ability to safely handle and/or use explosives. Failure to do so is false swearing to a government official, and grounds for revocation of licensing under RCW 70.74.370 (1)(b).

A nonmandatory sample format of the letter for a licensed medical treatment provider to send is provided in Appendix D.

[]

NEW SECTION

WAC 296-52-23080 Reciprocity. The department may grant a user's (blaster's) license of equivalent classification without testing to an applicant who is currently licensed in a state or territory of the United States found to have testing and/or mentorship programs that meet or exceed Washington standards.

(1) A list of the states granted reciprocity can be found on the department website at https://lni.wa.gov/licensing-permits/other-licenses-permits/explosives-licensing

(2) Individuals requesting a license, currently licensed in a state without reciprocity must:

(a) Submit an application, pay fees, and successfully pass fingerprint based background checks.

(b) Request the department to review another state's licensing program not on the list if they believe that the state they licensed in has not been included in error.

(3) The department will (upon request of an applicant):

(a) Contact the state/territory to obtain information about the testing, mentorship, and/or apprenticeship requirements; and

(b) Determine if the requirements for licensing are equivalent to those of Washington and publish the results at the website listed above.

Note: Documentation of the training must be kept by the applicant for the duration of employment or licensing, whichever comes first.

[]

MANUFACTURER'S LICENSE

NEW SECTION

WAC 296-52-2400 Responsibility to obtain a manufacturer's license. Any person, firm, partnership, corporation, or public agency

wanting to manufacture explosives (including blasting agents), or use any process involving explosives as a component part in the manufacture of any device, article, or product must have a valid manufacturer's license from the department and a valid permit or license issued by the ATF.

[]

NEW SECTION

WAC 296-52-24010 Applicant additional information. The manufacturer applicant must provide the following information to the department in addition to the information in WAC 296-52-20010:

(1) The reason the applicant wants to manufacture explosives;

(2) The manufacturing or processing location;

(3) The kind of explosives manufactured, processed, or used;

(4) The distance that the explosives manufacturing building is located, or intended to be located, from other buildings, magazines, inhabited buildings, railroads, highways, and public utility transmission systems;

(5) A site plan. The site plan must:

(a) Include the distance each manufacturing building is located from:

(i) Other buildings on the premises where people are employed;

(ii) Other occupied buildings on adjoining property;

(iii) Buildings where customers are served;

(iv) Public highways;

(v) Utility transmission systems;

(b) Demonstrate compliance with:

(i) Applicable requirements of the Washington State Explosives Act;

(ii) The separation distance requirements of this chapter;

(c) Identify and describe all natural or artificial barricades used to influence minimum required separation distances;

(d) Identify the nature and kind of work being performed in each building;

(e) Specify the maximum amount and kind of explosives to be permitted in each building or magazine at any one time;

(6) Other pertinent information required by the department.

[]

NEW SECTION

WAC 296-52-24020 Manufacturing site inspections. (1) The department will inspect all manufacturing or processing locations:

(a) Before they are placed in operation or service; and

(b) Prior to licensing.

(2) The department will schedule inspections:

(a) Once a complete application is received; and

(b) At the earliest available and mutually agreeable date.

(3) The required inspection will confirm that:

(a) The site plan is accurate and the facilities comply with applicable regulations of the department; and

(b) The applicant(s) or operating superintendent and employees are sufficiently trained and experienced in the manufacture of explosives.

[]

NEW SECTION

WAC 296-52-24030 Annual inspection. The department will inspect manufacturing or processing locations annually.

[]

NEW SECTION

WAC 296-52-24040 Site plan upkeep and posting. The site plan must:

(1) Be maintained and updated to reflect the current status of manufacturing facilities, occupancy changes, or other pertinent information at least:

(a) Every five years; or

(b) When a significant change occurs.

(2) Include a copy of the:

(a) Site plan; and

(b) Manufacturer's license.

(3) Be posted in the main office of each manufacturing plant.

(4) Be on file with the department.

[]

NEW SECTION

WAC 296-52-24050 Notify the department. The department must be notified:

(1) Prior to significant changes to the site plan to gain approval; or

(2) When requesting consultation before changing operations if the change is of such nature or magnitude that compliance with requirements of this chapter is questionable.

[]

STORAGE LICENSE

NEW SECTION

WAC 296-52-2500 Responsibility to obtain a storage license. Any person, firm, partnership, corporation, or public agency wanting to store explosive materials must have a valid license from the department. The applicant must provide the distance that the magazine is located or intended to be located from other magazines, inhabited buildings, explosives manufacturing buildings, railroads, highways, and public utility transmission systems.

[]

NEW SECTION

WAC 296-52-25010 Applicant additional information. Applicants must provide the following information to the department in addition to the information in WAC 296-52-20010:

(1) The address or a legal description of the existing or proposed magazine or mobile storage site must be clearly identified;

(2) The reason explosive materials will be stored;

(3) The kind of explosives (including blasting agents) intended to be stored;

(4) Identify the total weight, in pounds, of all explosive materials intended to be stored on site;

(5) Any other pertinent information requested by the department.

[]

NEW SECTION

WAC 296-52-25020 Storage site inspections. (1) The department will inspect magazines, mobile-storage sites, and manufacturing plants:

(a) Before being placed in operation or service;

(b) Prior to licensing.

(2) The department will schedule inspections:

(a) Once a complete application is received;

(b) At the earliest available and mutually agreeable date.

(3) Before licensing an inspection must verify:

(a) The maximum quantity and type of explosive materials that may be stored;

(b) Acceptable spacing from other magazines, inhabited buildings, explosives manufacturing buildings, railroads, highways, and public utility transmission systems; and

(c) Compliance with all other applicable rules.

Note: See WAC 296-52-25060 for mobile storage site qualifications.

[]

NEW SECTION

WAC 296-52-25030 Demonstration of handling and storage experience. Applicants, officers, and employees involved in explosives activities by the applicant individual or organization, must demonstrate satisfactory experience in:

(1) Handling explosives;

(2) The storage requirements for any type of explosive materials to be stored;

(3) Documentation of the training must be kept by the applicant for the duration of employment or licensing, whichever comes first.

[]

NEW SECTION

WAC 296-52-25040 Magazine number. The magazine number must:

(1) Be permanently affixed and/or marked on the inside and outside of each storage magazine;

(2) Stay with each magazine throughout its life.

[]

NEW SECTION

WAC 296-52-25050 Storage limit. A storage license documents the storage limits imposed on the licensee. Storage cannot exceed the limits specified on the license.

[]

NEW SECTION

WAC 296-52-25060 Annual storage inspection. Magazines, trailers, semi-trailers, mobile storage sites, and manufacturing plants will be inspected annually.

[]

NEW SECTION

WAC 296-52-25070 Mobile storage sites. Semi-trailers or other mobile facilities used to transport explosives (including blasting agents) on-site or on highways are considered adequate for explosives storage, provided they meet:

(1) U.S. DOT requirements for transportation of the type of explosives being transported; and

(2) The requirements of Table E-1, Table of Distances for Storage of Explosives with respect to inhabited buildings, passenger railways, and public highways; and

(3) The requirements of Table E-3, Ammonium Nitrate and Blasting Agents Separation Distances.

[]

NEW SECTION

WAC 296-52-25075 Moving a licensed magazine. Magazines are licensed only for a specific location. Their movements, whether full or not, must be verified by the department prior to any change.

(1) When a magazine is moved the owner of the magazine must notify the department at least 10 days before the proposed move with:

(a) The license number of the magazine;

(b) The new location of the magazine.

(2) A magazine may be moved on a job site within a reasonable distance from the original location stated on the application without notifying the department, provided the:

(a) New location complies with the requirements of this chapter and the Washington State Explosives Act;

(b) Magazine can be quickly located for an inspection.

Note: This does not apply to licensed trailers moving between licensed mobile storage sites as defined in WAC 296-52-25070.

[]

NEW SECTION

WAC 296-52-25080 Altering or destroying a licensed magazine. (1) When a magazine is altered, the licensee must notify the department at least 10 business days prior with:

(a) The license number of the magazine;

(b) The specific alterations made to the magazine.

(2) When a magazine is planned to be destroyed, the licensee must notify the department with the license number of the magazine and an inspection made prior to destruction.

[]

NEW SECTION

WAC 296-52-25085 Transfer, sale, or lease of a magazine or mobile storage site. (1) When a magazine or mobile storage site is leased, the owner of the magazine or mobile storage site must notify the department with:

(a) The magazine license number or site license number;

(b) The name of the individual or company leasing the magazine or mobile storage site.

(2) When a magazine or mobile storage site is transferred or sold from one entity to another, the previous owner/licensee must notify the department with:

(a) The magazine license number or site license number;

(b) The date of the sale or transfer;

(c) The name of the individual or company to whom the magazine or mobile storage site was sold or transferred to;

(d) Who will be licensing the magazine or mobile storage site;

(e) The name of the contact person and phone number.

(3) A new owner/licensee of a magazine or mobile storage site is responsible for the safe operation of the magazine or mobile storage site. They must also:

(a) Submit a magazine storage application to the department;

(b) Pay the license fee for a minimum of one year;

(c) Obtain a storage license prior to storing explosive materials in the magazine or at the mobile storage site.

(4) All parties involved in the transfer, sale, or lease of a magazine must comply with the conditions of magazine movement (WAC 296-52-25075).

[]

NEW SECTION

WAC 296-52-25090 Reporting changes in conditions. Any change in conditions around a magazine, mobile storage site, or manufacturing plant that could adversely affect compliance with any requirement of

this chapter must be reported to the department within three business days of discovery. Examples of reportable changes include, but are not limited to:

(1) Construction of occupied buildings;

(2) Public utilities transmission systems;

(3) Roads or railroads that have been built closer to the manufacturing plant or magazine.

[]

NEW SECTION

WAC 296-52-2510 Emergency exceptions. If an emergency such as a natural disaster occurs, licensees may apply directly by the most appropriate means necessary to move magazines and/or explosives to a safer location. Contact the nearest inspector by telephone or the main explosives licensing office at 360-902-5563/5569.

[]

NEW SECTION

WAC 296-52-2520 Summary of actions allowed by license type. The following actions are permitted for the type of license indicated:

Table B-4

Action/License Type	Purchase	Sell	Store	Detonate/Consume	Create	Transport
Dealer	X	X				X
Purchaser	X					X
User (blaster)				X		X
Manufacturer					X	X
Storage			X			X

[]

PART C

USE OF EXPLOSIVE MATERIALS

NEW SECTION

WAC 296-52-3000 General explosives rules.

[]

NEW SECTION

WAC 296-52-3005 Black powder. Black powder, including black powder manufactured for muzzle loading firearms, cannot be used for blasting.

[]

NEW SECTION

WAC 296-52-3010 Age of explosives. The oldest explosive of the kind needed for a blast, must be used first.

[]

NEW SECTION

WAC 296-52-3015 Temporary and blast site storage. Explosive materials stored at temporary sites or blast sites must be attended.

(1) Day box storage. A day box used for temporary storage of explosive materials at a job site during working hours at a job site must be:

(a) Constructed in accordance with WAC 296-52-70065, Explosives day box and WAC 296-52-70070, Detonator day box;

(b) Fire, weather, and theft resistant;

(c) Marked with the word "EXPLOSIVES";

(d) Safely separate detonators from other explosives;

(e) Attended at all times against theft;

(f) On ground which slopes away from the day box for proper drainage.

(2) Attendants must be present. An authorized attendant must be:

(a) Physically present;

(b) Awake;

(c) Alert;

(d) Able to see the explosives at all times;

(e) Able to reach the explosives quickly, without interference.

(3) Packaging materials. Empty boxes, paper, and fiber packing materials that have previously contained explosive materials must be:

(a) Disposed of in a safe manner; or

(b) Reused in accordance with U.S. DOT hazardous materials regulations.

(4) Opening fiberboard cases. Nonsparking metallic slitters may be used for opening fiberboard cases.

(5) Deteriorating explosives. Deteriorating explosives must be carefully set aside and disposed of according to the manufacturer's specifications.

[]

NEW SECTION

WAC 296-52-3020 Handling explosives. Explosives must be:

(1) Handled by only competent and authorized personnel.

(2) Delivered and issued only to a purchaser or a purchaser's employee possessor.

(3) Delivered into authorized magazines, approved temporary storage, or handling areas.

(4) Carried to the blast site from the main storage magazines by the blaster or blaster's helper in nonsparking containers, day boxes, or original U.S. DOT shipping containers which are secured to the vehicle.

(5) Never be carried in pockets or clothing, including detonators.

(6) Loose cartridges of explosives, detonators, primers, and capped fuses that are not used by the end of the work shift must be returned to and locked in their magazines.

[]

NEW SECTION

WAC 296-52-3025 Electromagnetic radiation hazards. Precautions must be taken to prevent unintended detonation of electro-explosive devices (EEDs) including detonators by electromagnetic radiation (EMR) hazards such as extraneous electricity and radio frequency (RF)

transmitters. The following are examples of sources of EMR which can cause unintended detonations:

(1) Dust and lightning storms;

(2) Adjacent power lines;

(3) RF transmission sources.

[]

NEW SECTION

WAC 296-52-30250 Storms. (1) Dust storms. Blasting operations must be completely stopped and all personnel removed from the blast area if a heavy dust storm approaches or is present because it could cause static lightning.

(2) Thunderstorms. Blasting operations must stop and all personnel be removed from the blast area if a thunderstorm approaches or is present.

Note: Snow storms and blizzards with high winds also have increased static electricity discharge. Nonelectric detonation systems should be used.

[]

NEW SECTION

WAC 296-52-30255 Adjacent power lines. (1) Power lines emit extraneous energy. Blasting adjacent to power lines will only be conducted using nonelectric or electronic detonation systems.

(2) Blasting conducted near power lines requires notification of the utility as specified in WAC 296-52-13060 for any blast closer to the lines than the safe area.

[]

NEW SECTION

WAC 296-52-30260 RF transmission sources. RF transmission sources are a vital part of our modern society and the amount of sources increases daily. The power output and capability to cause an EMR hazard varies by the item. Common hazardous sources of RF transmissions include, but are not limited to:

(1) Mobile transmitters:

(a) Citizens band (CB);

(b) Side band, UHF public safety or amateur (ham) radios;

(c) VHF (FM) radio;

(d) Cellular telephones;

(e) Unmanned aerial vehicle (UAV) controllers;

(f) Radar.

(2) Fixed location transmitters:

(a) Base stations for CB;

(b) Side band, FM, UHF public safety or amateur (ham) radio communications;

(c) UHF cellular telephone transmitters and service extension repeater systems;

(d) AM and FM (commercial) radio broadcast transmitters;

(e) TV broadcast transmitters and repeater system transmitters;

(f) Surface scan and radio navigation beacons.

Note: Fixed location RF transmitters represent a higher level of hazard to both storage and blasting operations involving electric detonators because the transmitters are more powerful and transmit dangerous levels of RF exposure over much greater distances.

(3) Low flying aircraft (in particular military aircraft) create the most common serious RF exposures. These highly unpredictable mobile transmitters are very powerful and transmit on a broad spectrum of frequencies which include, but are not limited to:

(a) Radar;

(b) Laser;

(c) All common communications bands.

Notes: The two most dangerous examples of low flying aircraft RF hazards are:

1. Low flying automatic terrain following guidance systems.

2. Airplanes which are equipped to jam all common radar and communications frequencies.

Blasting operations should be immediately halted if these types of aircraft are present within visual range of the blast site. The EMR hazard can extend several miles from the aircraft.

[]

NEW SECTION

WAC 296-52-30265 Transportation. Transportation of electro explosive devices (EEDs) must meet these requirements:

(1) Public highways. The Washington utilities and transportation commission (UTC) and Washington state department of transportation (WSDOT) require compliance with ANSI D6.1-1988, Uniform Traffic Control Devices;

(2) Private roads. It is not necessary to use the ANSI above on private roads under department jurisdiction if required warning signs are properly placed when electric detonators are present.

[]

NEW SECTION

WAC 296-52-30270 Site survey. The blaster in charge must conduct or assign a designated appointee to conduct an accurate survey of the entire blast area, to determine:

(1) The clearance points where roads or right of ways enter and exit the required clearance zone.

(2) If the 1,000-foot clearance zone needs adjusting to maintain the permissible clearance zone at all times, if the blast area moves as the job progresses.

(3) Voltage identification. Electrical transmission and distribution line voltage must be accurately identified.

(4) System clearance identification. The required clearance for each system must be accurately identified.

(5) Clearance zones are set in Table C-1.

Table C-1

Required clearance zones for:	Number of feet
Construction operations	1000 feet
Demolition operations	1000 feet
General industry operations, not subject to construction requirements	350 feet

[]

NEW SECTION

WAC 296-52-30275 Prevention of radio frequency hazards. (1) Electric detonators in storage or at blasting operations must meet the appropriate distance table requirements published in the IME Publication Number 20, December 2011, "Safety Guide for the Prevention

of Radio Frequency Hazards in the Use of Commercial Electric Detonators (Blasting Caps)."

(2) If it is necessary to conduct blasting operations inside the required separation distances specified in the IME Pamphlet Number 20, 2011:

(a) Storage and use of electric detonators is prohibited on the site;

(b) Only detonating cord, safety fuse, shock tube, or other approved nonelectric systems can be used.

(3) RF transmitters.

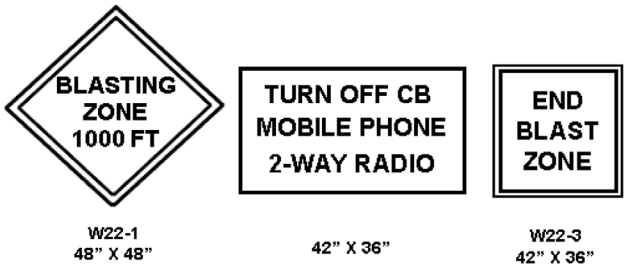
(a) Mobile RF transmitters must be deenergized or disconnected when they are less than 100 feet from electric detonators that are not fully contained in their original U.S. DOT shipping containers.

(b) Fixed location RF transmitters represent a higher level of hazard to both storage and blasting operations involving electric detonators because the transmitters are more powerful and transmit dangerous levels of RF exposure over much greater distance.

[]

NEW SECTION

WAC 296-52-30280 RF-transmitter warning signs. Figure C-1



(1) RF-transmitter warning-sign specifications. Signs must:

(a) Be a specific size. See Figure C-1 for sign dimensions;

(b) Have a "construction" orange background;

(c) Have black letters and borders;

(d) Use all upper case letters that are at least the size shown above.

Note: Larger signs may be required where the highway speed limit is more than 55 miles per hour.

(2) Warning signs must be placed by persons that meet the requirements set forth in WAC 296-155-305 Part E and be:

(a) Adequately placed to warn:

(i) All transmitter users against the use of:

(A) Radio frequency transmitters;

(B) CBs;

(C) Mobile phones;

(D) 2-way radios.

(ii) All users of routes into the electric detonator clearance zone.

(b) Prominently displayed when an electric detonator initiation system is being used during blasting operations and when the electric detonators have been removed from the original U.S. DOT approved shipping container;

(c) Posted at the beginning of the blast zone minimum clearance point saying: **"TURN OFF CB, MOBILE PHONE, 2-WAY RADIO"**

(3) Blast zone signs.

(a) The **"Blast zone 1,000 feet"** sign must be posted 1,000 feet before the **"TURN OFF CB, MOBILE PHONE, 2-WAY RADIO"** sign;

(b) The 1,000-foot separation distance limit may be reduced (not less than 300 feet) in very slow vehicle travel zones (such as off-road construction right-of-ways, rock pits, or quarries).

(c) An **"END BLAST ZONE"** sign must be posted outside the blasting zone clearance limits.

(d) Signs must be covered or removed when blasting operations are not being conducted.

[]

NEW SECTION

WAC 296-52-3030 User (blaster) responsibilities. All users (blasters) working under the direction of a blaster in charge on a blast site and licensed in the classification of the type of blasting being performed must:

(1) Comply with all federal, state, and local government regulations.

(2) Ensure the use of every reasonable precaution to ensure the safety of the general public and workers by exercising and applying independent professional judgment regarding blasting activities, when following instructions from others could result in an illegal act or cause physical injury.

[]

NEW SECTION

WAC 296-52-3035 Blaster in charge (BIC) responsibilities. Blasters in charge are responsible for all aspects of explosives use at a blast site and must ensure:

(1) Blast operation activities. The blaster in charge must:

(a) Have authority over all blasters and be able to promptly correct all actions taken in any area of the blast operation; and

(b) Manage the blast operation properly for any type of blasting being performed; and

(c) Control blast activities associated with a blast; and

(d) Supervise explosive material activities, which include:

(i) Keeping a running inventory of all explosives (including blasting agents) stored at the blast area; and

(ii) Supervising all on-site transportation, storage, loading, and firing of explosives; and

(e) Notify local jurisdictions when blasting may affect them; and

(f) Designate safe locations for personnel during the blast; and

(g) Designate a method to determine when all personnel are accounted for in designated safe locations; and

(h) Make sure blast observers are able to communicate with the blaster in charge; and

(i) Make sure all possible exits to the blast site are observed immediately prior to each blast; and

(j) Ensure warning signs and barricades are placed to prevent unauthorized access to the blast area. Reasonable precautions include use of:

(i) Warning signal posters, which must be posted in suitable locations. Table C-2 shows the information that must be on the poster; and

TABLE C-2

WARNING SIGNAL	A one minute series of long blasts five minutes prior to blast signal.
BLAST SIGNAL	A series of short blasts one minute prior to the shot.
ALL CLEAR SIGNAL	A prolonged blast following the inspection of the blast.

(ii) Barriers and entrance guards; and

(iii) Blasting mats or other suitable protective material; and

(k) Distribute explosives in the shot; and

(l) Be present when a charge is detonated; and

(m) Personally detonate the charge or give an order to a designated person to detonate the charge.

(2) Notification - Blast incidents. The blaster in charge must notify the department when:

(a) A misfire is not cleared within 24 hours; or

(b) Vibration and air over pressure cause injury or property damage or uncontrolled flyrock is observed:

(i) Immediately report this to the department; and

(ii) Cease all operations until the department can investigate.

(3) Blast records. The blaster in charge must:

(a) Keep an accurate inventory of all explosives (including blasting agents) stored at the blast operation;

(b) Keep a blast record with the following information:

(i) Name of the company or contractor;

(ii) Exact location of the blast;

(iii) Date and time of detonation;

(iv) Name, signature, and license number of the blaster in charge;

(v) Type of material blasted;

(vi) Type of explosives used and lot number/date code;

(vii) Number of holes, burden, and spacing;

(viii) Diameter and depth of holes;

(ix) Total amount of each type of explosives used;

(x) Maximum amount of explosives per delay period within eight milliseconds;

(xi) Maximum number of hole per delay period within eight milliseconds;

(xii) Method of firing;

(xiii) Type of circuit;

(xiv) Direction, distance in feet, and identification of the nearest public or private structure or commercial/institutional

building not owned or leased by the blaster in charge conducting the blasting, or, the owner/contractor the blaster in charge represents;

(xv) Weather conditions;

(xvi) Type and height (or length) of stemming;

(xvii) A statement indicating whether blast mats or other flyrock protection were used;

(xviii) Type of initiation system used;

(xix) Type of delay periods used;

(xx) Have seismograph records and readings, if required or used. Records must accurately identify the:

(A) Name of the seismograph operator; and

(B) Name(s) of the person and business analyzing the seismograph data; and

(C) Name of blaster in charge; and

(D) The following information about each seismograph used to monitor the blast:

(I) Serial number; and

(II) Last calibration date and the seismograph calibration lab; and

(III) Location by latitude and longitude or GPS coordinates; and

(IV) Horizontal distance to the closest blast hole in the blast pattern; and

(V) Direction (cardinal or degrees) toward the closest blast hole in the blast pattern; and

(VI) Coupling method used for the seismograph ground motion sensors (e.g., burial, spiking, sandbagging, spiking and sandbagging, shallow burial, mechanical attachment to bedrock or other specified coupling method);

(xxi) Have sketches of the blast pattern. The sketch must include the:

(A) Number of holes and their depth;

(B) Burden;

(C) Spacing;

(D) Timing pattern to include initiation point;

(xxii) Have sketches of the hole profile;

(xxiii) Have general comments which include:

(A) Unusual conditions/situations during the blast;

(B) The calculated scale distance number;

(C) Misfires;

(xxiv) Complete and sign each blast record;

(xxv) The following types of blasting are exempt from the indicated requirements of this section.

Table C-3

Blast Record Exemptions by Blasting Type

Blasting type	WAC 296-52-3035 (3)(b) exemption										
	vii	viii	xi	xvi	xix	xx	xxi				xxii
							A	B	C	D	
Avalanche Control	x	x	x	x		x	x	x	x	x	x
Industrial Ordnance	x	x	x	x			x	x	x		
Tactical Entry	x	x	x	x			x	x	x		
Aerial	x	x	x	x		x	x	x	x	x	x
Bomb Technician	x	x	x	x	x		x	x	x		x

Legend: X indicates the exemption of that record requirement.

(c) Retain blast records for a minimum of three years;

(d) Make sure blast records are available for department inspection by the end of the next working day;

(e) Make sure that all seismograms include the corresponding U.S. Bureau of Mines Report of Investigations 8507 (USBM RI 8507) curve plots, and are available for department inspection by the end of the next working day, to include any:

(i) Downloaded digital records from the on-board memory; and

(ii) Corresponding printed seismograms;

Note: A nonmandatory sample blast record can be found in Appendix B. This form may be used or a new form may be created; however, all the information in this section must be included.

(f) Review drill log and keep as part of the blast record.

[]

NEW SECTION

WAC 296-52-3040 Trainee supervision. Trainees and inexperienced personnel must work under the direct supervision of a fully qualified licensed blaster who knows the site:

(1) Blasting method;

(2) Safety procedures;

(3) Blasting signals.

[]

NEW SECTION

WAC 296-52-3100 Vibration and damage control. (1) **Ground vibration - Maximum limits.** Either Table C-3 or Table C-4 can be used to determine the maximum limits of ground vibration for any public or private structure or commercial/institutional building not owned or leased by the blaster in charge conducting the blasting, or, the owner/contractor the blaster in charge represents, or underwater structures, nearby the blasting site. The methods used for monitoring

vibration and calculating frequency must be included in the blast plan.

Table C-3

Peak Particle Velocity Limits

Distance from blasting site	Maximum allowable peak particle velocity[1]
0 to 300 ft (91.4 m)	1.25 in/sec (31.75 mm/sec)
301 to 5000 ft (91.5 m to 1524 m)	1.00 in/sec (25.4 mm/sec)
5001 ft (1525 m) and beyond	0.75 in/sec (19 mm/sec)

[1] Peak particle velocity must be measured in three mutually perpendicular directions and the maximum allowable limits must apply to each of these measurements.

(a) Frequency versus particle velocity graphics. In lieu of Table C-3, a blasting operation has the option to use the graphs shown in Figure C-2 or Figure C-3 to limit peak particle velocity based upon the frequency of the blast vibration. If the graph in Figures C-2 or C-3 are used to limit vibration levels, the methods used for monitoring vibration and calculating frequency must be included in the blast plan.

Figure C-2

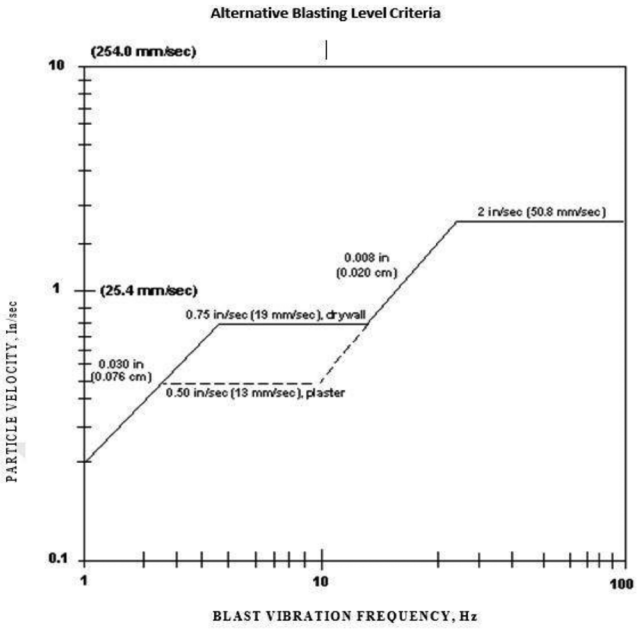
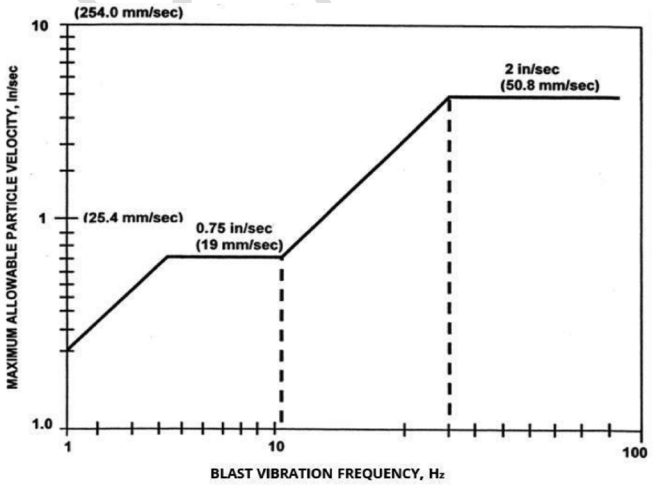


Figure C-3



(b) Scaled distance equations. Unless a blasting operation uses a seismograph to monitor a blast to assure compliance with Table C-3 or Figures C-2 or C-3, the operation must comply with the scaled distance equations shown in Table C-4.

Table C-4

Scaled-Distance Equations

Distance from Blasting Site	Scaled Distance Equation
0 to 300 ft (91.4 m)	$W(lbs) = (d(ft)/50)^2$ **or** $W(kg) = (d(m)/22.6)^2$
301 to 5000 ft (92 m to 1524 m)	$W(lbs) = (d(ft)/55)^2$ **or** $W(kg) = (d(m)/24.9)^2$
5001 ft (1524 m) and beyond	$W(lbs) = (d(ft)/65)^2$ **or** $W(kg) = (d(m)/29.4)^2$

Key:

W = The maximum weight of explosives in pounds (or kilograms) that can be detonated per delay interval of 8 milliseconds or greater.

d = The distance in feet (or meters) from the blast to the nearest public or private structure or commercial/institutional building not owned or leased by the blaster in charge conducting the blasting, or, the owner/contractor the blaster in charge represents.

Note: To convert English Units of scaled distances (ft/lb^2) to metric units (m/kg^2) divide by a factor of 2.1.

(2) **Air over pressure - Maximum limits.** Air over pressure must not exceed the maximum limits listed in Table C-5. Use Table C-5 to determine maximum over pressure limits at public or private structure or commercial/institutional building not owned or leased by the blaster in charge conducting the blasting, or, the owner/contractor the blaster in charge represents.

Table C-5

Air-Over Pressure Limits

Lower Frequency of Measuring System in Hz (+ or - 3 decibels)		Measurement Level in Decibels	
		Decibels (dB)	Pounds per sq in (psi)
2 Hz or Lower	Flat Response	133 Peak	.0129

(3) Flyrock outside the blast area:

(a) **Uncontrolled flyrock.** Flyrock traveling in the air or along the ground cannot be cast from the blast area in an uncontrolled manner, which could result in personal injury or property damage. Uncontrolled flyrock (airborne or along the ground), that could cause personal injury or property damage, is not allowed from the blast area.

(b) **Contract or written waiver.** Flyrock cannot be propelled from the blast area onto property where the blasting operation has not contracted or received a written waiver from the owner.

(c) **Use of protective material.** When blasting in congested areas or close to a structure, railway, highway, or any other installation that could be damaged, the blast must be covered, before firing, with a mat or other protective material that will prevent fragments from being thrown.

[]

NEW SECTION

WAC 296-52-3105 Blast design. Blasters in charge (BICs) typically design and perform their own blasts to meet ground conditions and performance criteria in a project's blasting specification. Design and consultation services can be used to provide an independent evaluation of conditions. However, the blaster in charge (BIC) is responsible for blast and safety performance of the detonation and may refuse to drill, load and/or detonate any blast designed by others until they determine that the design:

(1) Follows all local, state or federal codes; and

(2) Ensures the safety of all persons involved including the public; and

(3) Ensures that property damage only occurs consistent with WAC 296-52-3100 (3)(b); and

(4) Produced by anyone other than the BIC or their company is:

(a) Prepared under the authority of a registered professional engineer (RPE) licensed in the state of Washington, experienced in the practice of blast engineering, and signed by that RPE; and

(b) Signed as accepted by the BIC.

[]

NEW SECTION

WAC 296-52-3200 Blast area precautions. (1) Warning signs must:

(a) Be set up at all entrances to the blast area;

(b) Have lettering a minimum of four inches high and on a contrasting background.

(2) Loaded stumps. All loaded stumps must be marked for identification.

(3) Lock out. Cables close to the blast area must be deenergized and locked out by the blaster in charge (BIC).

(4) Vehicle use precautions.

(a) Explosives bulk trucks or other vehicles operated on a blast site cannot tread on:

(i) Tubing;

(ii) Connectors; or

(iii) Any surface delay component.

(b) If a vehicle must pass over loaded blast holes. Precautions must be made to consolidate tubing, connectors, or any surface delay component at the collar of the hole to prevent vehicle contact.

[]

NEW SECTION

WAC 296-52-3205 Drilling. (1) Drillers must maintain a drill log which includes:

(a) Depth of hole; and

(b) Hole diameter; and

(c) Rock properties; and

(d) Overburden; and

(e) Seams/voids; and

(f) Changes in rock/soil properties; and

(g) Burden; and

(h) Spacing.

Note: A nonmandatory sample drill log can be found in Appendix C. This form may be used or a new form may be created; however, all the information in this section must be included.

(2) Drill logs must be retained for three years.

(3) Driller needs to provide the blaster in charge (BIC) a copy of drill log before holes can be loaded with explosives.

(4) Unexploded charges.

(a) Drilling cannot begin:

(i) When there is danger of drilling into a charged or misfired hole;

(ii) Until all remaining butts of old holes are examined for unexploded charges.

(b) Unexploded charges must be refired or removed by appropriate means before work proceeds.

(5) Distance limits during drilling. Users (blasters) cannot load or use explosives closer than:

(a) Twice the length of the steel being used for drilling; or

(b) Within 50 feet of drilling operations, whichever is greater.

(6) Prior to loading drill holes.

(a) Holes must be checked prior to loading to determine depth and conditions.

(b) Drill holes that have contained explosives or blasting agents cannot be deepened.

(c) Drill holes must be large enough to allow unobstructed or free insertion of explosive cartridges.

(7) Enlarging or springing a drill hole. This practice should not be used because of the danger of undetonated explosives.

Note: It is not necessary to wait two hours if the sprung hole is thoroughly wetted down with water before it is loaded.

[]

NEW SECTION

WAC 296-52-3210 Loading blast holes. (1) Blaster in charge (BIC) must review drill log before loading explosives into holes.

(2) Power lines and portable electric cables. Power lines and portable electric cables must be kept at a safe distance from explosives (including blasting agents) being loaded into drill holes.

(3) Equipment, machinery, and tools.

(a) Any machine or tool not being used to load holes must be removed from the immediate loading area.

(b) Equipment may be used for the purpose of loading explosives into holes under the supervision of authorized personnel.

(c) Equipment cannot be operated within 50 feet of loaded holes except when:

(i) It is needed to add burden or mats;

(ii) Tracking drills out of the loading area;

(iii) Loading explosives into holes under the direct supervision of the blaster in charge or their selected representative.

(4) Holes that may be loaded. Only holes that will be fired in the next blasting round may be loaded.

(5) Tamping.

(a) A primer must never be tamped.

(b) Tamping must be done with wood rods or approved plastic tamping poles that do not have exposed metal parts.

(c) Nonsparking metal connectors may be used for jointed poles.

(d) Violent tamping must be avoided.

(6) Pneumatic loading. When loading blasting agents pneumatically over primed boosters:

(a) A semiconductive delivery hose must be used;

(b) Equipment must be bonded and grounded.

(7) Stemming. All blast holes in open work must be stemmed to:

(a) The collar; or

(b) A point, which will confine the charge.

(8) Attendance of holes. Loaded holes must be attended or protected.

(9) Unused explosives. After loading, all remaining explosives and detonators must be immediately returned to an authorized magazine or day box.

[]

NEW SECTION

WAC 296-52-3300 Initiating systems. General initiation rules.

(1) Training and supervision.

(a) The blaster in charge must provide adequate on-the-job training and supervision in the safe use of initiation systems.

(b) All members of the blasting crew must be instructed, by the blaster in charge, in the safe use of the initiation system to be used and its system components.

(2) Manufacturer recommendations. All initiation systems and system components must be used in accordance with manufacturer recommendations and instructions.

(3) Connecting the firing line. Firing lines cannot be connected to the blast initiating device until all personnel are:

(a) Accounted for;

(b) Removed from the blast danger area; or

(c) In a blast shelter or other location that provides equivalent protection.

(4) Visual inspection. The blaster in charge must visually inspect the initiation system to make sure it is assembled according to the manufacturer's recommendations, before firing the shot.

(5) Unused detonators:

(a) Cannot be placed in holes that may be used for blasting (applies to short capped fuses).

(b) Must be removed from the work area and disposed of or stored in a licensed magazine.

[]

NEW SECTION

WAC 296-52-3305 Nonelectric initiation systems. (1) Shock tube lines. When a nonelectric shock tube initiation system is used:

(a) Spools of shock tube lines cannot be spooled from trucks or equipment.

(b) The shock tube line must be:

(i) Free of knots and tight kinks;

(ii) Free of cuts or abrasions that could expose the core to moisture;

(iii) Not stretched;

(iv) Neat and orderly.

(c) Tie-ins must be kept neat and clean.

(d) Unused lead line must be sealed to prevent moisture and dirt from entering the tube.

(e) Care must be taken to avoid hitting the tube with a shovel when the shock tube is being covered.

(f) The end of the detonator must be pointed toward the front of the shot to minimize the chance of shrapnel flying to the rear of the blast where the shock tube will be lit.

(2) Surface connector blocks. Nonelectrical tubes must:

(a) Be secured properly in surface connector blocks.

(b) Never exceed the rated capacity of tubes in surface connector blocks.

(3) Splicing line. A knot must be tied in the tubes to take the strain off of the splice.

(4) Detonator cord. If a detonator cord is used for surface tie in:

(a) All lines must be kept taut.

(b) Connections to nonelectrical units must be at 90 degree angles.

(5) Equipment and personnel.

(a) Equipment cannot roll over shock tubes.

(b) All unnecessary equipment and personnel must be removed from the blast area during loading.

[]

NEW SECTION

WAC 296-52-33050 Safety fuse with detonators. (1) Safety fuse and detonators, can only be used for conventional blasting, in the following conditions:

(a) When extraneous electricity or radio frequency transmissions make the use of electric detonators and wire systems dangerous.

(b) When overhead electric transmission lines cannot be deenergized and there is danger that blasting wires may be thrown onto the overhead lines during a blast.

(c) For avalanche control hand charges.

(d) For specialized applications when detonators and fuses are safer than electric or other nonelectric initiation systems.

(2) Prohibited use.

(a) Mudcap charges. A detonator and fuse cannot be used for firing mudcap charges, unless the charges are separated to prevent one charge from dislodging other charges in the blast.

(b) Drop fuse method. Dropping or pushing a primer or any explosive with a lighted fuse attached is prohibited.

(c) Damaged fuses.

(i) Deteriorated or damaged fuses cannot be used.

(ii) It is prohibited to hang fuses on nails or other objects, which cause sharp bends in the fuse.

(3) Fuse length. Fuses must be:

(a) Cut long enough to reach beyond the collar of the drill hole;

(b) Three feet or longer.

(4) Fuse burning rate.

(a) Safety fuse burning rates must be:

(i) Measured;

(ii) Posted in conspicuous locations;

(iii) Brought to the attention of all workers.

(b) A fuse must burn between 40 and 55 seconds per foot or it cannot be used.

(5) Safe separation time. When blasting with safety fuses, the length and burning rate of the fuse must allow sufficient time for the blaster to reach a place of safety in a safe manner.

(6) Fuse capping.

(a) Capping location. Fuses must:

(i) Not be capped if:

(A) In any magazine; or

(B) Within 100 feet of a magazine; or

(C) Near any possible source of ignition;

(ii) Be capped only in a place designated for that purpose.

(b) Fuse ends. Before capping a safety fuse, a short length must be cut from the end of the supply reel to guarantee a freshly cut end in each detonator.

(7) Crimpers used for attaching detonators to safety fuses must be:

(a) Designed, manufactured, and approved for that purpose;

(b) In good repair;

(c) Accessible for use.

(8) Waterproofing. The joint between the detonator and fuse must be waterproofed with a compound for use in wet locations.

(9) Hand lighting.

(a) No one may light more than 12 fuses at a time when hand lighting devices are used.

(b) Two fuses may be considered one fuse when two or more grouped safety fuses are lit as a single fuse by:

(i) An igniter cord;

(ii) Other similar fuse lighting devices.

(c) When multiple detonators and blasting is done by hand lighting methods, at least two people must be present.

[]

NEW SECTION

WAC 296-52-3310 Electric initiating systems. (1) Survey of extraneous currents. A survey to evaluate extraneous currents must be conducted:

(a) By the blaster in charge before adopting any system of electrical firing;

(b) To eliminate all currents before holes are loaded.

(2) Detonator compatibility, style, function, and manufacture. In any single blast using electric detonators, all detonators must be:

(a) Compatible with each other;

(b) Of the same style or function;

(c) From the same manufacturer.

(3) Wire capacity and gauge.

(a) Connecting wires and lead wires must be:

(i) Insulated single solid wires with sufficient current carrying capacity;

(ii) Not less than 20 gauge (American wire gauge) solid core insulated wire.

(b) Firing line or lead wires must be:

(i) Made of solid single wires with sufficient current carrying capacity;

(ii) Not less than 14 gauge (American wire gauge) solid core insulated wire.

Note: Bus wires, depends on the size of the blast, 14 gauge (American wire gauge) copper is recommended.

(4) Lead wires.

(a) Shunting. The ends of lead wires that will be connected to a firing device must be shunted by twisting them together before they are connected to leg or connecting wires.

(b) Control. The blaster in charge must keep control of shunted lead wires until loading is completed and the leg wires are attached.

(c) Attachment. Lead wires must be attached by the blaster in charge when it is time to fire the shot.

(5) Detonator leg wires. Electric detonator leg wires must be:

(a) Kept shunted (short circuited) until they are connected into the circuit for firing;

(b) Not separated (except for testing) until all holes are loaded and the loader is ready to connect the leg wires to the connecting or lead wires.

(6) Circuits.

(a) Blasting circuits or power circuits must be used in electric blasting and according to the electric detonator manufacturer's recommendations.

(b) Care must be taken to make sure an adequate quantity of delivered current is available according to the manufacturer's recommendations, when firing a circuit of electric detonators.

(c) Power circuits used for firing electric detonators cannot be grounded.

(d) Firing switches must be:

(i) Designed so the firing lines to the detonator circuit automatically short circuit when the switch is in the "off" position;

(ii) Locked in the "open" or "off" position at all times, except when firing from a power circuit.

(7) Firing line insulation. The insulation on all firing lines must be adequate and in good condition when firing electrically.

(8) Testing.

(a) The firing line must be checked at the terminals with an approved testing device before being connected to the blasting machine or other power sources.

(b) The circuit, including all detonators, must be tested with an approved testing device before being connected to the firing line.

(9) Switch keys. The blaster in charge is the only person who is allowed to have firing switch keys in their possession.

(10) Blasting machines. A nonelectric system must be used if these requirements cannot be satisfied:

(a) Blasting machines must be in good condition.

(b) The efficiency of the blasting machine must be tested periodically to make sure it delivers power at its rated capacity.

(c) The blaster in charge must:

(i) Be in charge of blasting machines; and

(ii) Connect the lead wires to the blasting machine; and

(iii) Fire the shot or designate and supervise the person firing the shot.

(d) Connections must:

(i) Be made according to the manufacturer of the electric detonator's recommendations;

(ii) Be made from the drill hole back to the source of the firing current;

(iii) Ensure lead wires remain shunted and not connected to the blasting machine or other source of current until the charge is ready to fire;

(iv) Ensure the number of electric detonators connected to a blasting machine cannot exceed the blasting machine's rated capacity.

(11) Series circuit. In primary blasting, a series circuit cannot contain more detonators than the manufacturer's recommended limits for electric detonators.

(12) Circuit testing. A blaster in charge must use blasting testers specifically designed to test circuits to charged holes.

(13) Blasting near power lines. Whenever lead or blasting wires could be thrown over live overhead power lines, communication lines, utility services, or other services or structures by the force of an explosion, care must be taken to make sure:

(a) The total length of wires are short enough so they will not hit the lines.

(b) The wires are securely anchored to the ground.

(c) The owners or operators of the utilities in the blast area are notified.

(14) Disconnecting lead wires. After firing an electric blast from a blasting machine, lead wires must be immediately disconnected from the machine and short-circuited.

[]

NEW SECTION

WAC 296-52-33100 Electronic initiating systems. Electronic initiating systems are protected from all EMR hazards short of direct lightning strikes, but still use electricity to initiate. Electric initiating system precautions must be followed with the following exceptions:

(1) Surveys of the site for EMR hazards are not required.

(2) Electronic systems are allowed for use near power lines provided adequate anchors are used to prevent wires from being thrown over the lines.

(3) Manufacturer specified items must be used for the initiation of electronic blasting caps including:

(a) Test machines; and

(b) Firing machines; and

(c) Firing wire.

[]

NEW SECTION

WAC 296-52-3320 Primers. (1) Site selection. Primers must:

(a) Not be made in magazines or near possible sources of ignition.

(b) Be made in a place designated for this purpose.

(c) Be made a minimum of 100 feet from any storage magazine.

(2) Making primers. When making primers:

(a) Make only enough for one day's use.

(b) Only nonsparking skewers must be used for punching the hole in the cartridge to insert the capped fuse.

(c) A detonator cannot be inserted in explosives without first making a hole in the cartridge of proper size or using a standard detonator crimper.

(3) Storage. Primers must:

(a) Be stored in a box type magazine;

(b) Not be stored in magazines where other explosives are stored.

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NEW SECTION

WAC 296-52-3330 Use of detonating cord. (1) Cord selection. Care must be taken to select a detonating cord consistent with the:

(a) Type and physical condition of the drill hole;

(b) Stemming;

(c) Type of explosives used.

(2) Handling. Detonating cord must be handled and used with:

(a) The same respect and care given to other explosives;

(b) Care to avoid damaging or severing the cord during and after loading and hooking up.

(3) Calculating quantity and distance.

(a) For quantity and distance purposes, a detonating fuse (up to 60 grains per foot) should be calculated as equivalent to nine pounds of high explosives per 1,000 feet.

(b) Heavier cord loads should be rated proportionally.

(4) Trunk lines.

(a) Detonators for firing the trunk line cannot be brought to the loading area or attached to the detonating cord until everything else is ready for the blast.

(b) All detonating cord trunk lines and branch lines must be free of loops, sharp kinks, or angles that direct the cord back toward the oncoming line of detonation.

(c) Trunk lines in multiple row blasts must make one or more complete loops, with cross ties between loops at intervals less than 200 feet.

(5) Connections.

(a) Detonating cord. All detonating cords must be:

(i) Competent and positive in accordance with the manufacturers recommended specifications;

(ii) Kept at right angles to the trunk lines;

(iii) Inspected before firing the blast.

(b) Knots.

(i) Knot or other cord-to-cord connections must be made with a detonating cord where the explosive core is dry.

(ii) All detonator cord knots must be tight.

(c) Connecting detonators.

(i) A detonator or electric detonator must be taped or securely attached along the side or end of the detonating cord. The detonator end containing the explosive charge must be pointed in the direction of the detonation.

(ii) Manufacturer's recommendations must be followed when short interval delay electric detonators are used with a detonating cord.

(iii) Manufacturer's recommendations must be followed when detonating cord millisecond delay connectors are used with a detonating cord.

(iv) The line of detonating cord extending from a drill hole or a charge must be cut from the supply spool before loading the remainder of the drill hole or placing additional charges.

[]

NEW SECTION

WAC 296-52-3400 Firing the blast. (1) A code of blasting signals, equivalent to Table C-4, must:

(a) Be posted in one or more conspicuous places at the blast area; and

(b) Have all employees familiarized with the code of blasting signals and use.

(2) Warning signs must be placed at suitable locations prior to firing, see WAC 296-52-3200(1), warning signs.

(3) All charges must be covered with blasting mats or other protective material before firing, where blasting may cause injury or damage by flying rock or debris.

(4) Before a blast is fired, the blaster in charge must give a loud warning signal after they have verified all:

(a) Surplus explosives are in a safe place; and

(b) Employees, vehicles, and equipment are at a safe distance or under sufficient cover.

(5) Flaggers must be safely stationed on highways that pass through the danger zone, to stop traffic during blasting operations on highways that pass.

(6) The blaster in charge must set the time of the blast and conduct all blasting operations so no shots will be fired without their approval.

Table C-4

WARNING SIGNAL	A one minute series of long blasts five minutes prior to blast signal.
BLAST SIGNAL	A series of short blasts one minute prior to the shot.
ALL CLEAR SIGNAL	A prolonged blast following the inspection of the blast.

[]

NEW SECTION

WAC 296-52-34005 Precautions after firing. (1) Immediately after firing the blaster in charge must:

(a) Disconnect the firing line from the blasting machine;

(b) Lock the power switches in the "open" or "off" position;

(c) Carefully trace all wires or tubes and search for unexploded charges.

(2) Post blast inspection. The blaster in charge must perform an inspection of the area and surrounding rubble to determine if all charges have been exploded before employees are allowed to return to the operation.

(3) Misfires.

(a) Misfire found must be:

(i) Immediately reported to their supervisor;

(ii) Recorded on the blast record;

(iii) Reported to the department within 24 hours if not cleared.

(b) Handling. A blaster in charge must be present and direct the handling of all misfires.

(c) Termination of work.

(i) All work must stop, except activities needed to remove the misfire hazard.

(ii) Drilling, digging, or picking is not permitted until:

(A) All misfired holes have been detonated; or

(B) The blaster in charge determines work can proceed.

(d) Evacuation precautions. The following evacuation precautions must be taken in the event of a misfire:

(i) If a misfire is found, the blaster in charge must make sure safeguards are in place to keep all employees or other personnel from the danger zone, except those needed to remove the misfire hazard.

(ii) Workers cannot return to misfired holes for at least:

(A) Thirty minutes when electric blasting caps or any detonator using pyrotechnic delay are used;

(B) One hour when detonators and fuses are used.

(e) Charged or misfired holes.

(i) Attempts cannot be made to remove explosives from any charged or misfired hole.

(ii) A new primer must be connected and the hole refired.

(f) Refiring hazard. If refiring a misfired hole presents a hazard, explosives may be removed:

(i) By washing out the explosives with water; or

(ii) With air, if the misfire is under water.

(4) Burning holes.

(a) Everyone in the endangered area must move to a safe location when explosives are suspected of burning in a hole.

(b) No one, under any circumstances, may return to the hole:

(i) Until the danger has passed; or

(ii) For at least one hour after the hole has stopped burning.

[]

NEW SECTION

WAC 296-52-3500 Water-gel and emulsion explosives and blasting agents.

[]

NEW SECTION

WAC 296-52-3505 General. Unless otherwise specified in this part, water-gel, emulsion explosives and blasting agents must be transported, stored, and used in the same manner as explosives.

[]

NEW SECTION

WAC 296-52-3510 Water-gel and emulsion explosive types and classifications. (1) Contains explosive substance. Water-gel and emulsion explosive materials that contain a substance classified as an explosive must be classified as an explosive.

(2) Contains no explosive substance. Water-gel and emulsion explosive materials that do not contain any substance classified as an explosive or as cap-sensitive (as defined under "blasting agent" in WAC 296-52-099, Definitions) must not be classified as an explosive.

(3) Contains blasting agent substance. Water-gel and emulsion explosive materials that do not contain any substance classified as an explosive and are not cap-sensitive (as defined under "blasting agent" in WAC 296-52-099, Definitions) must be classified as blasting agents.

[]

NEW SECTION

WAC 296-52-3515 Transportation of water-gel and emulsion explosives and blasting agents. (1) Public highways. Vehicles transporting water-gel and emulsion explosives and blasting agents on public highways must comply with the United States Department of Transportation's (U.S. DOT) requirements specified for the material being transported including:

(a) Packaging, marking, and labeling containers.

(b) Placard regulations.

(2) Transporting blasting agents and explosives together. Transportation of blasting agents with explosives in the same vehicle must meet the requirements of WAC 296-52-4125, Operation while transporting explosives.

(3) Vehicles. Vehicles transporting water-gel and emulsion explosives and blasting agents must be in safe operating condition at all times.

(4) Prohibited activities. The following activities are prohibited for these vehicles:

(a) Carrying matches, firearms, acids, or other corrosive liquids, in the bed or body of the vehicle.

(b) Allowing anyone who is smoking or under the influence of intoxicants, narcotics, or other dangerous drugs to ride, drive, load, or unload the vehicle.

(c) Transporting or carrying paying customers.

[]

NEW SECTION

WAC 296-52-3520 Bulk delivery/mixing vehicles.

Note: This section applies to both off highway operations and public highway transportation.

(1) Vehicles. Must be in safe operating condition at all times and the requirements below must be followed:

(a) Strength. A bulk delivery vehicle must be strong enough to carry a load without difficulty.

(b) Mechanical condition. A bulk delivery vehicle must be in good mechanical condition.

(c) Body. A bulk vehicle body for delivering and mixing blasting agents must:

(i) Be constructed of noncombustible materials;

(ii) Have closed bodies if they are used to transport bulk premixed blasting agents.

(d) Mixing system parts.

(i) All moving parts of the mixing system must be designed to prevent heat buildup.

(ii) Shafts or axles which contact the product must have outboard bearings with a minimum of one-inch clearance between the bearings and the outside of the product container. Special attention must be given to the clearances on all moving parts.

(e) Welding.

(i) Welding or open flames are not permitted in or around the mixing or storage area of the plant unless the equipment or area has been completely washed and all oxidizer material removed.

(ii) Before welding or repairing hollow shafts:

(A) All oxidizer material must be removed from the inside and outside of the shaft; and

(B) The shaft must be vented with a minimum 1/2-inch diameter opening.

(2) Vehicle operation.

(a) Driver training. The vehicle driver must be:

(i) Trained in the safe operation of the vehicle, mixing, conveying, and related equipment;

(ii) Familiar with the load being delivered and general procedures for handling emergencies.

(b) Cargo and containers must:

(i) Haul either detonators or other explosives, but not both, UNLESS the bulk truck provided has a special wood or nonferrous-lined container installed for explosives;

(ii) Be in U.S. DOT specified shipping containers, according to 49 C.F.R. Chapter 1.

(c) Vehicles moving in the blast area must comply with WAC 296-52-3200. Additionally bulk delivery/mixing vehicles must:

(i) Exercise caution to avoid driving the vehicle onto or dragging hoses over firing lines, cap wires, or explosive materials; and

(ii) Use a second person to help guide the vehicle driver's movements.

(d) Parking brakes and chocks. The following are requirements for parking brakes and chocks:

(i) A positive action parking brake, which will engage the wheel brakes on at least one axle, must be:

(A) Provided on vehicles equipped with air brakes;

(B) Used during bulk delivery operations.

(ii) Wheel chocks must supplement parking brakes whenever conditions require.

(3) Pneumatic loading. Pneumatic loading from bulk delivery vehicles into blast holes primed with electric detonators or other static sensitive systems must comply with these requirements:

(a) A positive grounding device must be used to prevent accumulation of static electricity.

(b) A discharge hose must:

(i) Have a resistance range that will prevent conducting stray currents; or

(ii) Be conductive, to bleed off static buildup.

(c) A qualified person must evaluate all static sensitive systems to determine if they will adequately dissipate static potential under field conditions.

(4) Repairs must comply with the requirements of this section.

(5) Prohibited activities:

(a) In-transit mixing of materials.

(b) While in or about bulk vehicles in the process of the mixing, transferring, or down-the-hole loading of water-gels at or near the blasting site:

(i) Smoking; and

(ii) Carrying flame producing devices including matches and firearms.

[]

NEW SECTION

WAC 296-52-35205 Bulk delivery/mixing vehicles—Water-gel and emulsion explosives. (1) Vehicle design - Power supply. The design of

bulk delivery/mixing vehicles must comply with conditions listed above, and, when electric power is supplied by a self-contained motor generator located on the vehicle, the generator must be separate from where the water-gel is discharged.

(2) Pneumatic loading transfer locations. The location chosen to transfer water-gel or other ingredients from a support vehicle to the drill hole loading vehicle, must be removed from the blast site if the drill holes are loaded or are in the process of being loaded.

Note: Water-gels and emulsions must be transported, stored, and used in the same way as explosives or blasting agents according to product classification unless stated otherwise in WAC 296-52-3520, Bulk delivery/mixing vehicles through WAC 296-52-35205, Bulk delivery/mixing vehicles—Water-gel and emulsion explosives.

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NEW SECTION

WAC 296-52-3600 Underwater blasting operations.

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NEW SECTION

WAC 296-52-3605 Separation distance from vessels and people.

(1) A blast cannot be fired while any moving vessel is within 1,500 feet of the blasting area.

(2) People on board vessels or crafts moored or anchored within 1,500 feet must be notified before a blast is fired.

[]

NEW SECTION

WAC 296-52-3610 Swimming and diving activities. (1) A blast cannot be fired while any swimmers or divers are in the vicinity of the blasting area.

(2) If swimming and diving activities are in progress, a signaling arrangement must be agreed upon to communicate blast warnings prior to blasting.

[]

NEW SECTION

WAC 296-52-3615 Initiation systems. Water resistant initiation systems must be used for underwater blasting.

[]

NEW SECTION

WAC 296-52-3620 Loading tubes and casings. (1) When a tube is necessary, loading must be done through a nonsparking loading tube.

(2) Loading tubes and casings must be the same type of metal to prevent electric transient currents from occurring as a result of a galvanic reaction of the metals and water.

[]

NEW SECTION

WAC 296-52-3625 Multiple charges. (1) When more than one charge is placed underwater, a float device must be attached to an element of each charge to make sure it will be released when the charge is fired.

(2) Blasting flags must be displayed.

(3) Misfires must be handled according to the requirements of WAC 296-52-34005(3), Misfires.

[]

NEW SECTION

WAC 296-52-3700 Underground blasting operations.

[]

NEW SECTION

WAC 296-52-3705 Storage. (1) Permanent storage. The following are requirements for permanent storage:

(a) Explosives or blasting agents cannot be permanently stored in an underground operation until at least two exit routes are developed.

(b) Permanent underground storage magazines:

(i) Must be a minimum of 300 feet from any shaft, adit, or active underground working area.

(ii) Containing detonators must be a minimum of 50 feet away from any magazine containing other explosives or blasting agents.

(2) Tunnels, shafts, or caissons. Detonators and explosives cannot be stored or kept in tunnels, shafts, or caissons.

[]

NEW SECTION

WAC 296-52-3710 Separation distance—Electrical storms. When an electrical storm is approaching, explosives at the adit, or the top of any shaft leading to where people are working, must be moved to a

distance equal to the distance required for inhabited buildings (Table E-1) unless this would create a greater hazard.

[]

NEW SECTION

WAC 296-52-3715 Proper fume class use. (1) Fume Class 1. Fume Class 1 explosives must be used for underground operations, as specified by the IME.

(2) Fume Classes 2 and 3. Explosives complying with the requirements of Fume Class 2 and 3 may be used if adequate ventilation is provided.

[]

NEW SECTION

WAC 296-52-3720 Combustible gases or dusts. Explosives cannot be loaded or used underground where combustible gases or combustible dusts exist unless approved by the Mine Safety and Health Administration (MSHA).

[]

NEW SECTION

WAC 296-52-3725 Electric initiating systems. (1) Safety switch. Safety switches must be placed at intervals in the permanent firing line when firing from a power circuit designed so:

(a) Switches can only be locked in the "off position"; or

(b) Short-circuiting is the default arrangement of the firing lines to the detonator circuit.

(2) Lightning gap. A lightning gap must be:

(a) At least five feet ahead (in the firing system) of the main firing switch, between the switch and power source.

(b) Bridged by a flexible jumper cord just before firing the blast.

[]

NEW SECTION

WAC 296-52-3730 Firing the blast. (1) Guarding entrances. All entrances:

(a) Leading into the blasting area must be carefully guarded;

(b) To any working place where a drift, raise, or other opening is about to hole through must be carefully guarded.

(2) Warning signals. A warning must be given before firing an underground blast. See Table C-2 for signaling requirements.

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NEW SECTION

WAC 296-52-3735 Returning to the blast. (1) Smoke and fumes. The blaster in charge must wait a minimum of 15 minutes to allow smoke and fumes to clear before returning to the shot.

(2) Muck pile. Workers cannot return to work until the muck pile has been watered down.

[]

NEW SECTION

WAC 296-52-3740 High speed tunneling—Central primer house. The following requirements apply when primers are made up at a central primer house for use in high speed tunneling:

(1) Primers.

(a) Only enough primer must be made for each round of blasting.

(b) Primers must be placed in separate containers and bins, categorized by the degree of delay in preventing physical impact.

(2) Separation of explosives in magazines. Explosives transported in the same magazine must be separated by:

(a) One-quarter inch steel; and

(b) Covered on each side by four inches of hardwood planking or equivalent protection.

[]

NEW SECTION

WAC 296-52-3745 Work in pressurized air locks. (1) Receiving, handling, storing, and transportation. Detonators and explosives for each round must be:

(a) Taken directly from the magazines to the blasting zone; and

(b) Immediately loaded.

(2) Wet holes. Explosives appropriate for use in wet holes must be:

(a) Water resistant; and

(b) Fume Class 1 or other approved explosives.

(3) Bonding. All metal pipes, rails, air locks, and steel tunnel linings must be:

(a) Electrically bonded together and grounded at or near the portal or shaft;

(b) Cross bonded together at not less than 1,000-foot intervals throughout the length of the tunnel.

(4) Air locks.

(a) No one is allowed to enter the air lock when detonators or explosives are brought in, except:

(i) The blaster in charge;

(ii) The powder person;

(iii) The lock tender;

(iv) Employees needed to carry explosive materials.

(b) Primers, detonators, and explosives must be taken separately into pressure working locks.

(c) Material, supplies, or equipment cannot be brought into air locks with explosive materials.

(d) Detonators and explosives not used after loading a round must be removed from the working chamber before connecting the connecting wires.

(5) Grounding. Each air supply pipe must be grounded at its delivery end.

(6) Mixed face.

(a) Light charges and light burdens must be used for each hole when tunnel excavation in rock face is approaching or is in mixed face.

(b) Advance drilling must be done when tunnel excavation in rock face approaches mixed face to determine the:

(i) General nature and extent of rock cover; and

(ii) Distance to soft ground as excavation advances.

[]

Part D

TRANSPORTATION OF EXPLOSIVE MATERIALS

NEW SECTION

WAC 296-52-4000 General. This part specifies safety practices for the safe transport of explosives. Specific guidance for specialized transport is found in the specific part covering that skill. These rules will be used in addition to any local jurisdictions restrictions.

[]

NEW SECTION

WAC 296-52-4005 Public highways. Transportation of explosives on public highways are:

(1) Regulated by:

(a) United States Department of Transportation (U.S. DOT) (49 C.F.R., Parts 100-199);

(b) The Washington utilities and transportation commission;

(2) Administered and enforced by the Washington state patrol and local law enforcement.

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NEW SECTION

WAC 296-52-4010 Job sites and off highway roads. The transportation rules in this part apply to:

(1) Job sites and off highway roads.

(2) Privately financed, constructed, or maintained roads.

[]

NEW SECTION

WAC 296-52-4015 Transportation of workers. Only authorized personnel properly trained in the safe handling of explosives will be allowed in vehicles transporting explosives, provided seat belts are available for all occupants.

[]

NEW SECTION

WAC 296-52-4020 Cargo. (1) Explosive materials and their containers must be secured to the vehicle during transport by:

(a) Being tied or strapped to the vehicle; or

(b) Locked in a nonsparking container secured to the vehicle; or

(c) Filling the cargo space enough to limit any movement.

(2) Materials, supplies, and detonators cannot be transported in the same cargo space as other explosive materials.

Exemption: Properly secured nonsparking equipment.

[]

NEW SECTION

WAC 296-52-40200 Delivery to carriers. Explosives delivered to any carrier must comply with U.S. DOT regulations. Explosives cannot be delivered to any carrier unless the packaging is in compliance with U.S. DOT regulations.

[]

NEW SECTION

WAC 296-52-40205 Hours of transfer. Explosives cannot be received between sunset and sunrise from any:

(1) Railway station; or

(2) Truck terminal; or

(3) Pier; or

(4) Wharf; or

(5) Harbor facility; or

(6) Airport terminal.

[]

NEW SECTION

WAC 296-52-4025 Storage en route. Explosives waiting for delivery or further transit at a railway facility, truck terminal, pier, wharf, harbor facility, or airport terminal must be:

(1) Stored in a safe place;

(2) Isolated as much as practical;

(3) In a manner that allows quick and easy removal.

[]

NEW SECTION

WAC 296-52-4100 Vehicles. Vehicles used for transporting explosives must meet the conditions in the following sections.

[]

NEW SECTION

WAC 296-52-4105 Condition. They must:

(1) Be strong enough to carry the load without difficulty;

(2) Be in good mechanical condition;

(3) Have a tight floor in the cargo compartment(s);

(4) Not have any exposed spark producing metal inside the vehicle, which could come in contact with explosives.

[]

NEW SECTION

WAC 296-52-4110 Open top vehicles. (1) Locations of use. While loaded with explosives, open top vehicles must only be used on:

(a) The job site; or

(b) Roads that are closed to public travel.

(2) Containers. Explosives being transported in open top vehicles or trailers must be transported in:

(a) The original U.S. DOT approved shipping container; or

(b) A day box or portable magazine that complies with the requirements of this chapter.

(3) Loading. Packages of explosives cannot be loaded above the sides on open top vehicles.

(4) Tarpaulins (tarps).

(a) If an explosives transportation vehicle or trailer does not have a fully enclosed cargo area with nonsparking interior, the cargo bed and all explosive cargo must be covered with a flame and moisture proof tarp or other effective protection against moisture and sparks.

(b) Whenever tarps are used for covering explosives, both the tarp and the explosives container must be fastened to the body of the truck bed with rope, wire, or other equally efficient tie downs.

[]

NEW SECTION

WAC 296-52-4115 Placards. All vehicles transporting explosives material must have placards except as provided elsewhere in this chapter. The placards must:

(1) Be displayed as specified by U.S. DOT;

(2) Remain on the vehicle until all explosives have been removed.

[]

NEW SECTION

WAC 296-52-4120 Fire protection. (1) Fire extinguishers.

(a) Driver training. The driver must be trained to use the fire extinguishers on the vehicle.

(b) Equipment specifications. Vehicles transporting explosive materials must be equipped with fire extinguishers that meet the following minimum ratings:

(i) A power unit that is used to transport hazardous materials in a quantity that requires placarding (see 49 C.F.R. Sec. 177.823) must be equipped with a fire extinguisher having an Underwriters' Laboratories rating of 10 B:C or more.

(ii) A power unit that is not used to transport hazardous materials must be equipped with either:

(A) A fire extinguisher having an Underwriters' Laboratories rating of 5 B:C or more; or

(B) Two fire extinguishers, each of which has an Underwriters' Laboratories rating of 4 B:C or more.

(c) Laboratory approval. Only fire extinguishers approved by a nationally recognized testing laboratory can be used on vehicles carrying explosives.

(d) Condition and location. Fire extinguishers must be filled, ready for immediate use, and easily reached.

(e) Inspection. A competent person must inspect fire extinguishers periodically. You must comply with the requirements of WAC 296-800-30020, Inspect and test all portable fire extinguishers.

(2) Safety inspections must be conducted for motor vehicles transporting explosives. The inspection must verify that:

(a) Fire extinguishers are filled and in working order; and

(b) All electrical wiring is protected and securely fastened to prevent short circuiting; and

(c) Chassis, motor, pan, and underside of body are reasonably clean and free of excess oil and grease; and

(d) Fuel tank and feedline are secure and have no leaks; and

(e) Tires are checked for proper inflation and defects; and

(f) Brakes, lights, horn, windshield wipers, and steering apparatus are functioning properly; and

(g) The vehicle is in proper condition in every other respect and acceptable for handling explosives.

(3) Repairs and servicing of motor vehicles or conveyances carrying explosives, blasting agents, or blasting supplies:

(a) Cannot be conducted inside a garage or shop when carrying explosive material; and

(b) Repairs and modifications must meet the criteria of this chapter.

[]

NEW SECTION

WAC 296-52-4125 Operation while transporting explosives. (1) Authorized transportation of explosives may only be by a:

(a) Licensed manufacturer; or

(b) User (blaster); or

(c) Purchaser, seller, or their designated representative; or

(d) Contract carrier for hire who complies with all requirements for transportation of hazardous materials.

(2) Driver qualifications.

(a) Vehicles transporting explosives must be driven by a responsible driver who is:

(i) At least 21 years old; and

(ii) Licensed appropriately by the state they reside or operate in; and

(iii) Physically fit; and

(iv) Careful; and

(v) Capable; and

(vi) Reliable; and

(vii) Able to read and write the English language; and

(viii) Not addicted to or under the influence of intoxicants, narcotics, or other dangerous drugs.

Note: This does not apply to people taking prescriptions as directed by a physician, as long as use of the prescription drug does not endanger the worker or others.

(b) The driver must be:

(i) Familiar with all:

(A) Traffic regulations;

(B) Department of Transportation (U.S. DOT) and other state laws in the transportation of explosives and hazardous material laws.

(ii) Aware of:

(A) What they are carrying;

(B) Safety precautions for the explosives being transported.

(3) Parking – Division 1.1, 1.2, or 1.3 explosives containing vehicles cannot be parked:

(a) On or within five feet of the traveled portion of a public street or highway;

(b) On private property, including fueling or eating facilities, without the knowledge and consent of the person. The person in charge must be aware of the hazardous materials in the vehicle; or

(c) Within 300 feet of a bridge, tunnel, dwelling, building, or place where people work, congregate, or assemble.

EXEMPTION: These restrictions do not apply when:

1. Routine operations require the vehicle to be parked for a brief period of time; or

2. It is unsafe or impractical to park the vehicle any other place; or

3. Allowed or required by chapter 212-17 WAC, Fireworks.

(4) Vehicle must be attended at all times while transporting any quantity of Division 1.1, 1.2 or 1.3 explosives by a driver or other representative of the vehicle carrier in accordance with 49 C.F.R. Part 397 exceptions are:

(a) A vehicle containing explosive materials may be left unattended for a period not to exceed 48 hours provided the vehicle is parked in a designated parking lot, which complies with:

(i) NFPA 498 Standard for Safe Havens and Interchange Lots for Vehicles Transporting Explosives; and

(ii) The appropriate distance table for the type and quantity of explosives from Part E of this chapter.

(b) The parking lot must be:

(i) Correctly bermed, walled, or fenced, and gated to prevent unauthorized entry;

(ii) Inspected and approved by the department;

(iii) Continuous patrolled by full-time security when explosives are present.

(c) Explosives delivery trucks do not need to be attended when only Division 1.5 are loaded, and no high explosives, provided the:

(i) Vehicle is locked so it cannot be moved;

(ii) Cargo compartments are locked to prevent theft;

(iii) Vehicle is parked according to all applicable storage distance requirements;

(iv) Vehicle is located in a secured area that restricts entry of unauthorized personnel.

(5) Authorized attendants must be:

(a) Physically present and able to see the explosives at all times;

(b) In an emergency, able to quickly get to the explosives without interference;

(c) Awake;

(d) Alert;

(e) Not engaged in activities, which could divert their attention;

(f) Aware of the division of the explosive material and its dangers;

(g) Instructed in the methods and procedures used to protect the public;

(h) Familiar with the particular vehicle being driven;

(i) Trained in the use of the vehicle;

(j) Authorized and be able to move the vehicle if required.

(6) Loading a vehicle to transport explosives in the same vehicle body must comply with U.S. DOT loading regulations including the following items:

(a) Spark producing metal;

(b) Spark producing tools;

(c) Oils;

(d) Matches;

(e) Firearms;

(f) Electric storage batteries;

(g) Flammable substances;

(h) Acids;

(i) Oxidizing materials; or

(j) Corrosive compound.

(7) Congested areas and heavy traffic must be avoided if possible.

(8) Disabled vehicles.

(a) A qualified person must be present before explosives can be transferred from a disabled vehicle to another vehicle.

(b) In a congested area, you must promptly notify local fire and police authorities.

(c) In a remote area they may be notified if necessary.

(9) Explosives delivery and issue must be made:

(a) Only by and to authorized people; and

(b) Into authorized magazines or authorized temporary storage or handling areas.

[]

NEW SECTION

WAC 296-52-41250 Transporting detonators and explosives in the same vehicle. (1) Fuse type detonators, detonators with a safety fuse, or detonators with a metal clad mild detonating fuse, cannot be transported in the same vehicle or trailer with other explosives, unless they comply with U.S. DOT hazardous material regulations for:

(a) Packaging;

(b) Separation;

(c) Transportation.

(2) Detonators rated as nonmass detonating by U.S. DOT may be transported in the same vehicle or trailer with other explosives when the:

(a) Detonators are carried in U.S. DOT approved shipping containers; or

(b) Truck or trailer complies with the requirements of IME Safety Library Publication Number 22, May 1993.

[]

NEW SECTION

WAC 296-52-4200 Trains. Trains and any explosives they transport must meet U.S. DOT Federal Railroad Administration when on public or general use rails. Within a job site or on privately held spurs, trains and their components must follow the rules of WAC 296-24-21511 and the following sections.

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NEW SECTION

WAC 296-52-4205 Locomotives. Explosives including blasting agents must not be transported on any locomotive engine.

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NEW SECTION

WAC 296-52-4210 Railway cars. (1) Explosives cannot be kept in a railway car unless:

(a) An emergency exists;

(b) Permission has been granted by the local authority;

(c) The railway car, its contents, and methods of loading are in compliance with U.S. DOT regulations (49 C.F.R. Chapter 1).

(2) Warning signs for railway cars not in transit.

(a) Any railway car containing explosives must have warning signs attached to every side of the car when it is:

(i) Stopped in transit; or

(ii) At its designation; and

(iii) No longer considered in interstate commerce.

(b) Warning signs must read **"EXPLOSIVES - HANDLE CAREFULLY - KEEP FIRE AWAY."** The letters must be:

(i) Red;

(ii) At least 1 1/2 inches high;

(iii) On a white background.

[]

NEW SECTION

WAC 296-52-4300 Underground transport. These requirements must be followed when transporting explosives (including blasting agents) underground:

(1) Companion items that cannot be transported in the same shaft conveyance:

(a) Supplies, equipment, other materials; and

(b) Detonators and other explosives.

(2) Manual transportation of explosives (including blasting agents) must be in:

(a) The original container; or

(b) A suitable alternate container.

(3) Cars or conveyances containing explosives (including blasting agents) must be pulled and not pushed.

(4) Personnel:

(a) Riding on a conveyance is not allowed when transporting explosives (including blasting agents).

(b) Crew haul trips cannot transport explosives (including blasting agents).

EXEMPTION: These restrictions do not apply to the operator, helper, or powder person.

(5) Storage on transports is not allowed. All explosives (including blasting agents) that are transported underground must immediately be taken to the place of use or storage.

(6) Underground loading area quantities cannot exceed the amount estimated to be necessary for the blast.

(7) Warning signs must be posted on each side of powder cars, vehicles or conveyances built for transporting explosives (including blasting agents) that meet these conditions:

(a) State "EXPLOSIVES";

(b) Use letters a minimum of four inches high;

(c) Have a background color that sharply contrasts with the letters.

(8) Primers unloaded at the blast site must be:

(a) Unloaded after drilling has been completed and the holes in the round are ready for loading;

(b) Unloaded from the powder car at the face or heading;

(c) Removed from the powder car for only the exact number being used for the round.

(9) The powder car must be removed from the tunnel after the charge has been loaded.

(10) Electric detonator wires must be kept shunted until wired to the bus wires.

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NEW SECTION

WAC 296-52-4305 Special transportation methods. In underground blasting operations, explosives (including blasting agents) must be hoisted, lowered, or transported in a powder car or other specialized transport.

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NEW SECTION

WAC 296-52-43050 Powder cars, vehicles, conveyances. These types of transports must meet the following requirements:

(1) State-approved powder cars or conveyances must be used underground.

(2) Compartments on the same conveyance used for transporting detonators and explosives together must be physically separated by a:

(a) Distance of 24 inches; or

(b) Solid partition a minimum of six inches thick.

(3) Auxiliary lights that are powered by an electrical system on a truck bed are prohibited.

(4) Inspections and records.

(a) Daily inspections of the powder car or conveyance must check for:

(i) Properly working lights; and

(ii) Properly working brakes; and

(iii) External damage to electrical circuitry.

(b) Weekly inspections must:

(i) Be conducted on the electrical system, to assess electrical hazards;

(ii) Include a written inspection certification record that:

(A) Contains the date of inspection; and

(B) The serial number, or other positive identification of the unit being inspected; and

(C) The signature of the person performing the inspection.

(c) Records of inspections must be kept on file for the duration of the job.

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NEW SECTION

WAC 296-52-43055 Locomotives. In addition to limits set in WAC 296-52-4205, explosives (including blasting agents) must be separated by a minimum of two car lengths from the locomotive engine.

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NEW SECTION

WAC 296-52-43060 Hoist operator notification. Hoist operators must be notified before explosives (including blasting agents) are transported in a shaft conveyance.

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Part E

STORAGE OF EXPLOSIVE MATERIALS

NEW SECTION

WAC 296-52-5000 General. All Division 1.1, 1.2, 1.3, 1.4 and 1.5 explosives, special industrial explosives, and any newly developed unclassified explosives, must be stored in magazines that meet the requirements of RCW 70.74.120 and this chapter, unless the explosives are:

(1) In the manufacturing process;

(2) Being physically handled;

(3) Being used at the job site;

(4) Being transported to a place of storage or use;

(5) Exempt as provided in WAC 296-52-50010, Part I (Law enforcement), or Part G Miscellaneous.

Note: Storage of display fireworks must meet the requirements of RCW 70.74.120 and WAC 296-52-5400.

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NEW SECTION

WAC 296-52-50005 Detonators. Detonators must not be stored in magazines where other explosives are stored.

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NEW SECTION

WAC 296-52-50010 Exempt explosives. Explosives exempt from these storage requirements are:

Type of Explosive	Exempted Amount
1. Small arms ammunition 2. Propellant-actuated power cartridges 3. Binary explosives, unmixed	
Small arms ammunition primers	Quantities less than 750,000
Smokeless powder	Quantities less than one

Type of Explosive	Exempted Amount
Black powder (as used in muzzle loading)	Quantities less than five
Explosive-actuated power devices	Quantities less than 50 pounds net weight of explosives
Fuse lighters and igniters	
Safety fuses except safety detonating fuses	
Consumer fireworks	

Note 1: **Components storage.**
Any 2 components which when mixed become a 1.1 explosive, and become capable of detonation by a #8 detonator must be stored in a licensed approved magazine. Each component of 2 component explosives when unmixed must be stored in separate locked containers.

Note 2: **Electro magnetic radiation precautions.**
Blasting operations or storage of electrical detonators are prohibited in the area of operation radio frequency (RF) transmitter stations except where the clearances (WAC 296-52-30260, Extraneous electricity and radio frequency (RF) transmitters) can be observed.

Note 3: **Detonators, electric detonators, detonating primers, and primed cartridges.**
Detonators, electric detonators, detonating primers, and primed cartridges cannot be stored together or in the same magazine with other explosives.

Note 4: **Ammonium perchlorate rocket motors.**
Ammonium perchlorate rocket motors in 62.5 grams amounts or greater, but not to exceed 50 pounds in total weight of explosives, may be stored in an attached garage of a single-family residence if the living area is separated by a fire wall with one-hour minimum fire resistance.

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NEW SECTION

WAC 296-52-50015 Storage within magazines. (1) Storage materials. Magazines cannot be used for storage of metal tools or any commodity other than:

(a) Explosives;

(b) Blasting agents;

(c) Blasting supplies;

(d) Materials stored in nonsparking containers including unloaded firearms stored for commercial sale.

(2) Black powder.

(a) Black powder must be stored separately from other explosives in a magazine.

(b) Where smokeless propellants are stored in the same magazine with black powder, the total quantity must not exceed that permitted for black powder.

(c) Kegs must be stored on end, bungs down, or on sides, seams down.

(3) Age/or date mark. Explosives that are not already age/or date marked by the manufacturer, must be marked with the manufacturing date before being stored in the magazine.

(4) Grades and brands.

(a) For other than fireworks, identical grades and brands of explosives must be stored together, with the brands and grade marks showing.

(b) Explosive materials must be stored so they can be easily checked and counted.

(5) Package placement. Explosive packages must be:

(a) Placed right side up;

(b) Stacked so they are stable.

(6) Ventilation. Explosive material must not be:

(a) Stored where it could interfere with ventilation; or

(b) Placed less than two inches from the interior walls.

Note: Nonsparking lattice or other nonsparking material may be used to prevent contact of stored explosive material with interior walls.

(7) Housekeeping.

(a) Magazine floors must be:

(i) Regularly swept and the sweepings properly disposed of;

(ii) Kept clean and dry;

(iii) Free of grit, paper, and used packages or rubbish.

(b) Brooms and other cleaning tools cannot have any spark producing metal parts.

(c) Floors stained with nitroglycerin must be cleaned according to the manufacturer's instructions.

(8) Unpacking or repacking explosives.

(a) Containers of explosives (except for fiberboard or other nonmetal containers) cannot be unpacked or repacked:

(i) In a magazine;

(ii) Within 50 feet of a magazine;

(iii) Near other explosives.

(b) Opened packages of explosives must be securely closed before returning them to a magazine.

(c) Tools used for opening packages of explosives must be constructed of nonsparking materials.

(d) A nonstatic, nonabsorbent, nonporous, and nonsparking wedge and mallet must be used for opening or closing wooden crates of explosives.

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NEW SECTION

WAC 296-52-50020 Storage limits. Not more than 300,000 pounds of explosive materials or 20,000,000 detonators can be stored in any one storage magazine.

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NEW SECTION

WAC 296-52-50025 Approval by and notification of fire safety authority. Any licensee who stores explosive material must gain approval of the local fire safety authority who has jurisdiction over the area where the explosive materials are stored. This applies to any subsequent movement or increase in explosives stored.

(1) The local authority approval must include the following for each site:

(a) Type of explosives;

(b) Magazine capacity;

(c) Exact location.

(2) The department will coordinate with the Washington state emergency operations center (EOC) to keep all local fire authorities updated with information of the storage locations and plans to address emergency evacuation:

(a) Distances; and

(b) Plans; and

(c) Routes; and

(d) Storage sites.

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NEW SECTION

WAC 296-52-50030 Magazine repairs. Before beginning repair activities that could cause sparks or fire:

(1) All explosives must be removed from the magazine under repair and placed in another magazine or a safe distance away.

(2) Explosives must be properly guarded until they are returned to a magazine.

(3) The floor must be cleaned before beginning repairs inside a magazine.

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NEW SECTION

WAC 296-52-50035 Lighting. (1) Battery-activated safety lights or battery-activated safety lanterns may be used in explosives storage magazines.

(2) Electric lighting used in any explosives storage magazine must meet the standards prescribed by the "National Electrical Code," (National Fire Protection Association, NFPA 70) as adopted by chapter 296-46B WAC, for the conditions present in the magazine at any time.

(3) All electrical switches are to be located outside of the magazine and also meet the standards prescribed by the National Electrical Code.

[]

NEW SECTION

WAC 296-52-50040 Inventory. (1) A qualified person must be:

(a) Responsible for the magazine at all times;

(b) At least 21 years old;

(c) Held responsible for the enforcement of all safety requirements.

(2) Explosives must:

(a) Be accounted for at all times;

(b) Be kept in a locked magazine when not in use unless exempted elsewhere in the chapter;

(c) Not be easily accessed by unauthorized persons.

(3) Inventory and use records must be updated no later than the close of the next business day for all explosives.

(4) Any person responsible for explosives who discovers a theft or loss of explosives must report the incident to local law enforcement within 24 hours.

(5) Law enforcement agencies must report a theft or loss of explosives to the department immediately.

(6) Other people who know of attempted or actual unauthorized magazine entry must report this information to local law enforcement.

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NEW SECTION

WAC 296-52-50050 Inspection. (1) Weekly inspection.

(a) Unattended magazines containing any amount of explosive material must be inspected at least every seven days.

(b) The person or company responsible for the contents of the magazine must ensure the magazine is inspected to determine whether there has been an unauthorized:

(i) Attempted entry into the magazine; or

(ii) Removal of explosives from the magazine.

(c) Any unauthorized attempted entry or removal of explosives at any attended or unattended magazine location must be reported to the authorities as noted in WAC 296-52-50040(4).

Note: This inspection does not need to be an inventory.

(2) Inspection records.

(a) Inspection records must be provided by one of the following methods.

(i) Written - The person doing the inspection must sign one of the following documents after completing the inspection:

(A) A weekly inspection log;

(B) Daily transaction log;

(C) An inventory sheet; or

(D) Other record.

(ii) Electronic documentation - Electronic methods to detect unauthorized access such as motion sensor video, door sensors, or occupancy sensors may be used if they provide notification of attempted unauthorized entry to those responsible for the magazine.

(b) If electronic methods used; a physical safety inspection must be performed monthly.

[]

NEW SECTION

WAC 296-52-50060 Precautions for areas surrounding magazine.

(1) Firearms. Only qualified guards and qualified law enforcement officers are allowed to carry firearms inside or within 50 feet of a magazine.

(2) Area maintenance. The area surrounding magazines must:

(a) Be kept clear of rubbish, brush, dry grass, or trees, except live trees more than 10 feet tall, for a minimum of 25 feet in all directions;

(b) Be free of volatile materials for a minimum of 50 feet from outdoor magazine;

(c) Have the ground around storage facilities slope away for drainage, living foliage does not need to be removed.

(3) Fire sources. Smoking, matches, open flames, and spark producing devices are not permitted:

(a) In any magazine;

(b) Within 50 feet of an outdoor magazine; or

(c) In any room containing an indoor magazine.

(4) Warning signs.

(a) Access routes. All normal access routes to explosive material storage facilities, except Type 3 (1.4) magazines, must be posted with warning signs that read:

DANGER

NEVER FIGHT EXPLOSIVE FIRES

EXPLOSIVES ARE STORED ON THIS SITE CALL _____

(b) Sign specifications and placement. Signs must:

(i) Be contrasting in color;

(ii) Have the pin stroke of the letters a minimum of three inches (75 mm) high and 1/2 inch (12.5 mm) wide;

(iii) Be placed so a bullet passing through the sign will not strike a magazine;

(iv) Not be attached to magazines.

(c) Transportation placards. Placards required by the U.S. Department of Transportation (DOT) (49 C.F.R.) for transporting blasting agents must be displayed on all Type 5 magazines where blasting agents are stored.

[]

NEW SECTION

WAC 296-52-50070 Deteriorated explosives. (1) Explosives must be immediately destroyed, according to the manufacturer's recommendations, whenever they are suspected of deteriorating to the point they are:

(a) Unstable;

(b) Dangerous;

(c) Leaking nitroglycerine.

(2) Only a licensed user (blaster) may destroy explosives.

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NEW SECTION

WAC 296-52-50075 Explosives recovered from misfires. (1) Storage. Explosives recovered from misfires must be placed in a

separate licensed magazine until they can be disposed of according to the manufacturer's recommendations.

(2) Detonator use. Detonators suspected of being defective cannot be reused.

(3) Disposal. The blaster in charge must dispose of explosives and detonators according to the manufacturer's recommendations.

[]

NEW SECTION

WAC 296-52-50080 Blast site storage. (1) Location. Temporary storage for explosives at blast sites must be located away from:

(a) Inhabited buildings;

(b) Railways;

(c) Highways;

(d) Other magazines.

(2) Separation distance. A distance must be maintained between magazines and the blast site. This distance must be a minimum of:

(a) One hundred fifty feet when the quantity of explosives is greater than 25 pounds;

(b) Fifty feet when the quantity of explosives is 25 pounds or less.

(3) Temporary storage of fireworks at display sites must follow chapter 212-17 WAC, Fireworks.

[]

NEW SECTION

WAC 296-52-50090 Multiple magazines. (1) Separation distance. When two or more storage magazines are located on the same property, each magazine must comply with the minimum quantity of explosives and separation distance requirements for:

(a) Magazines (Tables E-2, E-4, E-5, and E-8);

(b) Inhabited buildings, railways, and highways (Tables E-1, E-5, E-7, and E-8).

(2) Distances that do not meet requirements. If the separation distance between two or more magazines is less than the distance required (Tables E-2, E-4, E-5, and E-8), the magazines must:

(a) Be considered one magazine; and

(b) Comply with the minimum distance requirements for inhabited buildings, railways, and highways (Tables E-1, E-5, E-7, and E-8).

(3) Distance of grouped magazines to other magazines. Each magazine in a group must comply with minimum magazine distance requirements (Tables E-2, E-4, E-5, and E-8) in relation to other magazines not considered part of the group.

(4) Quantity of explosives.

(a) Magazine group. The total quantity of explosives stored in a magazine group (two or more) must:

(i) Be considered one magazine;

(ii) Comply with the minimum distance requirements (Tables E-1, E-5, E-7, and E-8) for one magazine.

(b) Detonator magazine. The quantity of explosives contained in a detonator magazine takes precedence over the minimum magazine distance requirements (Table E-2) when determining the separation distance required between a detonator magazine and magazines that contain other types of explosives.

(c) Detonator strength. Strengths of blasting and electric detonators:

(i) Up to #8 detonators must be rated as 1 1/2 pounds of explosives per 1,000 detonators;

(ii) Detonators greater than #8 must be computed on the combined weight of explosives.

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NEW SECTION

WAC 296-52-5100 Blasting agents and supplies. (1) Storage.

Note: Blasting agents may be stored with nonexplosive blasting supplies.

(a) When stored with explosives, blasting agents or ammonium nitrate must be stored as required in magazine construction.

(b) When computing the total quantity of explosives, the mass of blasting agents and 1/2 the mass of ammonium nitrate must be included when determining the distance requirements.

When stored separately from explosives, blasting agents and ammonium nitrate must be stored as required in this chapter in:

(c) Warehouses which are:

(i) One story without basements;

(ii) Noncombustible or fire resistant;

(iii) Constructed so there are no open floor drains and piping where molten materials could flow and be trapped in case of fire;

(iv) Weather resistant;

(v) Well ventilated;

(vi) Equipped with a strong door which is securely locked except when open for business.

(d) Semi-trailer or full trailer vans used for highway or on-site transportation of blasting agents must:

(i) Comply with location requirements for inhabited buildings, passenger railways, and public highways in Table E-1;

(ii) Be in accordance with the distance requirements in Table E-3;

(iii) Have substantial means for locking and the trailer doors must be kept locked except during the time of placement or removal of blasting agents.

(e) Storage warehouses for blasting agents must:

(i) Comply with the location requirements for inhabited buildings, passenger railways, and public highways in Table E-1;

(ii) Be in accordance with the distance requirements in Table E-3.

(f) Combustible materials, flammable liquids, corrosive acids, chlorates, or nitrates cannot be stored in warehouses used for blasting agents unless they are separated by a fire resistant wall with a minimum of one-hour fire resistance.

(g) A competent person, at least 21 years old, must supervise every warehouse used for the storage of blasting agents.

(2) Combustible materials. These activities and items are prohibited within 50 feet (15.2 m) of any warehouse used for storing blasting agents:

(a) Smoking;

(b) Matches;

(c) Open flames;

(d) Spark producing devices;

(e) Firearms.

(3) Housekeeping. The interiors of warehouses used for storing blasting agents must be:

(a) Kept clean, and free from debris and empty containers;

(b) All spilled materials must be promptly cleaned. Cleaned to manufacturers specifications.

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NEW SECTION

WAC 296-52-51010 Ammonium nitrate. (1) Storage.

(a) Ammonium nitrate storage requirements do not apply to:

(i) The transportation of ammonium nitrates while under the jurisdiction of and in compliance with U.S. DOT regulations (see 49 C.F.R., Part 173);

(ii) The storage of ammonium nitrates while under the jurisdiction of and in compliance with U.S. Coast Guard (see 49 C.F.R., Parts 146-149);

(iii) The storage of ammonium nitrate and ammonium nitrate mixtures, which are more sensitive than allowed by:

"Definition and test procedures for ammonium nitrate fertilizers" from the Fertilizer Institute, 501 2nd Street N.E., Washington, D.C. 20006. (This definition limits the contents of organic materials, metals, sulfur, etc., in products that may be classified ammonium nitrate fertilizer.);

(iv) The production of ammonium nitrate or the storage of ammonium nitrate on the premises of the producing plant, if no hazards are created to the employees or public;

(v) The standards for ammonium nitrate (nitrous oxide grade) that are found in the:

"CGA G-8.4—2016 Safe Practices for the Production of Nitrous Oxide from Ammonium Nitrate" from the Compressed Gas Association, 14501 George Carter Way Suite 103, Chantilly, VA 20151.

(b) Ammonium nitrate storage requirements apply to:

(i) Anyone, in addition to the owner or lessee of any building, premises, or structure having or storing ammonium nitrate in quantities of 1,000 pounds (425 kg) or more;

(ii) Ammonium nitrate in the form of crystals, flakes, grains, or prills including fertilizer grade, dynamite grade, nitrous oxide grade, technical grade, and other mixtures containing 60 percent or more ammonium nitrate by weight.

Note: The approval of large quantity storage is based on the fire and explosion hazards, including exposure to toxic vapors from burning or decomposing ammonium nitrate.

(c) Storage buildings housing ammonium nitrate must:

(i) Have adequate ventilation or be self-ventilating in the event of a fire;

(ii) Have fire-resistant walls when the exposed side of a storage building is within 50 feet (15.2 m) of a combustible building, forest, piles of combustible materials, and similar exposure hazards. Other suitable means of exposure protection such as a freestanding wall may be used instead of a fire-resistant wall;

(iii) Have roof coverings that are Class B or better as defined in Roof Coverings, NFPA 5000, Chapter 38, 2018 edition;

(iv) Have flooring of noncombustible material or be protected against saturation by ammonium nitrate. In case of fire, the floor

must not have open drains, traps, tunnels, pits, or pockets into which molten ammonium nitrate could flow and be confined;

(v) Be dry and free from water seepage through the roof, walls, and floors;

(vi) Not have basements, unless the basements are open on at least one side;

(vii) Not be over one story in height.

(d) Bags, drums, and other containers of ammonium nitrate must:

(i) Comply with specifications and standards required for use in interstate commerce (see 49 C.F.R., Chapter 1). Containers used on the premises in the actual manufacturing or processing do not need to comply;

(ii) Not be used for storage when the temperature of the ammonium nitrate exceeds 130°F (54.4°C);

(iii) Not be stored within 30 inches (76 cm) of the storage building walls and partitions;

(iv) Not be stacked higher than 20 feet (6.1 m) in height, 20 feet (6.1 m) in width, and 50 feet (15.2 m) in length. When buildings are constructed of noncombustible materials or protected by automatic sprinklers, there are no stacking height restrictions;

(v) Never be stacked closer than 36 inches (.09 m) below the roof or overhead supporting and spreader beams;

(vi) Be separated by aisles a minimum of three feet wide. There must be one main aisle in the storage area a minimum of four feet (1.2 m) wide.

(e) Bulk ammonium nitrate must be stored:

(i) In warehouses with adequate ventilation or be capable of adequate ventilation in case of fire;

(ii) In structures that are not more than 40 feet (12.2 m) high, unless:

(A) They are constructed of noncombustible material; or

(B) Have adequate facilities for fighting a roof fire;

(iii) In clean bins that are free of materials that could cause contamination;

(iv) In bins or piles that are clearly identified by signs reading "AMMONIUM NITRATE" in letters a minimum of two inches (5 cm) high;

(v) In bins or piles sized and arranged so all material is moved periodically to minimize the possibility of caking;

(vi) Adequately separated from easily combustible fuels. Bins cannot be made of galvanized iron, copper, lead, and zinc because of the:

(A) Corrosive and reactive properties of ammonium nitrate; and

(B) To avoid contamination;

(vii) In tightly constructed wooden and aluminum bins that are protected against saturation from ammonium nitrate;

(viii) In tightly constructed partitions that divide the ammonium nitrate from other products to avoid contamination;

(ix) Where the temperature of the product does not exceed 130°F (54.4°C);

(x) No higher than 36 inches (0.9 m) below the roof or overhead; supporting and spreader beams if stacked in piles. Stack items (height and depth), should be determined by the pressure setting tendency of the product.

(f) Bulk ammonium nitrate when caked, cannot be broken up or loosened by the use of dynamite, other explosives or blasting agents.

(g) Bulk ammonium nitrate cannot be stored with:

(i) LP gas on the premises except when such storage complies with WAC 296-24-475, Storage and handling of liquefied petroleum gases;

(ii) Sulfur and finely divided metals in the same building except when such storage complies with this chapter and NFPA 495, Explosives Materials Code;

(iii) Explosives (including blasting agents) in the same building except on the premises of manufacturers, distributors, and users (blasters) of explosives;

(iv) When explosives (including blasting agents) are stored in separate buildings, other than on the approval of manufacturers, distributors, and users (blasters), they must be separated from the ammonium nitrate by the distances and/or barricades specified in Table E-3 or a minimum of 50 feet (15.2 m);

(v) With flammable liquids, such as gasoline, kerosene, solvents, and light fuel oils on the premises except when such storage conforms to WAC 296-24-330, Flammable liquids, and when walls, sills, or curbs are provided in accordance with WAC 296-52-51010, Ammonium nitrate.

(2) Contaminants must be stored in a separate building from ammonium nitrate or be separated by an approved firewall of not less than one-hour fire resistance rating which should extend to the underside of the roof. Alternatively, the contaminants may be separated by a minimum of 30 feet (9.1 m), instead of using walls. These contaminants are:

(a) Organic chemicals;

(b) Acids;

(c) Other corrosive materials;

(d) Materials that may require blasting during processing or handling;

(e) Compressed flammable gases;

(f) Flammable and combustible materials;

(g) Other substances including:

Animal fats	Baled cotton	Baled rags	Baled scrap paper
Bleaching powder	Burlap or cotton bags	Caustic soda	Coal
Coke	Charcoal	Cork	Camphor
Excelsior	Fibers of any kind	Fish oil	Fish meal
Foam rubber	Hay	Lubricating oil	Linseed oil
Other oxidizable or drying oils	Naphthalene	Oakum	Oiled clothing
Oiled paper	Oiled textiles	Paint	Straw
Sawdust	Wood shavings	Vegetable oil	

(3) Housekeeping requirements must have:

(a) Electrical installations, which meet the requirements of chapter 296-24 WAC, Part L, Electrical, and WAC 296-800-280, Basic electrical rules, for ordinary locations and be designed to minimize damage from corrosion;

(b) Adequate lightning protections in areas where lightning storms are prevalent (see NFPA 780 Standard for the Installation of Lightning Protection Systems, 2017 Edition);

(c) Procedures to prevent unauthorized personnel from entering the ammonium nitrate storage area.

(4) Fire protection must provide:

(a) Water supplies per local fire authority;

(b) Suitable fire control devices, such as a small hose or portable fire extinguishers, throughout the warehouse and in the loading/unloading areas. These devices must comply with the requirements of WAC 296-800-300, Summary—Portable fire extinguishers, and WAC 296-24-602, Standpipe and hose systems;

(c) Approved sprinkler systems installed according to WAC 296-24-607, Automatic sprinkler systems;

(d) Two thousand five hundred tons (2,270 metric) or less of bagged ammonium nitrate may be stored in a structure that does not have an automatic sprinkler system.

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NEW SECTION

WAC 296-52-5200 Barricades.

Note: Definitions of barricade including artificial and natural barricade can be found in WAC 296-52-099, Definitions.

The following alternative barricading methods must be approved by inspection:

(1) Concrete retaining blocks at least 24 inches in width.

(2) A stand of mature timber dense enough so the area requiring protection cannot be seen from the magazine when the trees are bare of leaves.

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NEW SECTION

WAC 296-52-5300 Quantity and distance tables. All explosive magazines and manufacturing buildings that store explosives or blasting agents (except small arms ammunition, primers, black powder and smokeless powder), must meet the requirements as specified in:

(1) Table E-1, Storage of Explosives;

(2) Table E-2, Separation between Magazines;

(3) Table E-3, Ammonium Nitrate and Blasting Agent Explosives or Blasting Agents Separation;

(4) Table E-4, Manufacturing buildings and plant magazines;

(5) Table E-5, Low explosives;

(6) WAC 296-52-5400, Tables E-6 through E-8, Storage of nonexempt fireworks and fireworks material.

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NEW SECTION

WAC 296-52-53010 Table E-1 Distances for storage of explosives.

Table E-1

Table of Distances for Storage of Explosives

Quantity of Explosive		Distances (in Feet)					
(In Pounds)		Inhabited Buildings		Public Highways with Traffic Volume 3,000 or Less Vehicles Per Day		Passenger Railways and Public Highways: With Traffic Volume of More Than 3,000 Vehicles Per Day	
Over	Not Over	Barricaded	Unbarricaded	Barricaded	Unbarricaded	Barricaded	Unbarricaded
0	5	70	140	30	60	51	102
5	10	90	180	35	70	64	128
10	20	110	220	45	90	81	162
20	30	125	250	50	100	93	186
30	40	140	280	55	110	103	206
40	50	150	300	60	120	110	220
50	75	170	340	70	140	127	254
75	100	190	380	75	150	139	278
100	125	200	400	80	160	150	300
125	150	215	430	85	170	159	318
150	200	235	470	95	190	175	350
200	250	255	510	105	210	189	378
250	300	270	540	110	220	201	402
300	400	295	599	120	240	221	442
400	500	320	640	130	260	238	476
500	600	340	680	135	270	253	506
600	700	355	710	145	290	266	532
700	800	375	750	150	300	278	556
800	900	390	780	155	310	289	578
900	1,000	400	800	160	320	300	600
1,000	1,200	425	850	165	330	318	636
1,200	1,400	450	900	170	340	336	672
1,400	1,600	470	940	175	350	351	702
1,600	1,800	490	980	180	360	366	732
1,800	2,000	505	1,010	185	370	378	756
2,000	2,500	545	1,090	190	380	408	816

Quantity of Explosive (In Pounds)		Distances (in Feet)					
		Inhabited Buildings		Public Highways with Traffic Volume 3,000 or Less Vehicles Per Day		Passenger Railways and Public Highways: With Traffic Volume of More Than 3,000 Vehicles Per Day	
Over	**Not Over**	**Barricaded**	**Unbarricaded**	**Barricaded**	**Unbarricaded**	**Barricaded**	**Unbarricaded**
2,500	3,000	580	1,160	195	390	432	864
3,000	4,000	635	1,270	210	420	474	948
4,000	5,000	685	1,370	225	450	513	1,026
5,000	6,000	730	1,460	235	470	546	1,092
6,000	7,000	770	1,540	245	490	573	1,146
7,000	8,000	800	1,600	250	500	600	1,200
8,000	9,000	835	1,670	255	510	624	1,248
9,000	10,000	865	1,730	260	520	645	1,290
10,000	12,000	875	1,750	270	540	687	1,374
12,000	14,000	885	1,770	275	550	723	1,446
14,000	16,000	900	1,800	280	560	756	1,512
16,000	18,000	940	1,880	285	570	786	1,572
18,000	20,000	975	1,950	290	580	813	1,626
20,000	25,000	1,055	2,000	315	630	876	1,752
25,000	30,000	1,130	2,000	340	680	933	1,866
30,000	35,000	1,205	2,000	360	720	931	1,962
35,000	40,000	1,275	2,000	380	760	1,026	2,000
40,000	45,000	1,340	2,000	400	800	1,068	2,000
45,000	50,000	1,400	2,000	420	840	1,104	2,000
50,000	55,000	1,460	2,000	440	880	1,140	2,000
55,000	60,000	1,515	2,000	455	910	1,173	2,000
60,000	65,000	1,565	2,000	470	940	1,206	2,000
65,000	70,000	1,610	2,000	485	970	1,236	2,000
70,000	75,000	1,655	2,000	500	1,000	1,263	2,000
75,000	80,000	1,695	2,000	510	1,020	1,293	2,000
80,000	85,000	1,730	2,000	520	1,040	1,317	2,000
85,000	90,000	1,760	2,000	530	1,060	1,344	2,000
90,000	95,000	1,790	2,000	540	1,080	1,368	2,000
95,000	100,000	1,815	2,000	545	1,090	1,392	2,000
100,000	110,000	1,835	2,000	550	1,100	1,437	2,000
110,000	120,000	1,855	2,000	555	1,110	1,479	2,000
120,000	130,000	1,875	2,000	560	1,120	1,521	2,000
130,000	140,000	1,890	2,000	565	1,130	1,557	2,000
140,000	150,000	1,900	2,000	570	1,140	1,593	2,000
150,000	160,000	1,935	2,000	580	1,160	1,629	2,000
160,000	170,000	1,965	2,000	590	1,180	1,662	2,000
170,000	180,000	1,990	2,000	600	1,200	1,695	2,000
180,000	190,000	2,010	2,010	605	1,210	1,725	2,000
190,000	200,000	2,030	2,030	610	1,220	1,755	2,000
200,000	210,000	2,055	2,055	620	1,240	1,782	2,000
210,000	230,000	2,100	2,100	635	1,270	1,836	2,000
230,000	250,000	2,155	2,155	650	1,300	1,890	2,000
250,000	275,000	2,215	2,215	670	1,340	1,950	2,000
275,000	300,000	2,275	2,275	690	1,380	2,000	2,000

Note 1: Terms used in Table E-1 are found in WAC 296-52-099, Definitions.

Note 2: Source of table data is BATF (6/90) 55.218.

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NEW SECTION

WAC 296-52-53020 Table E-2 Separation between magazines.

Note: This table applies to the permanent storage of commercial explosives only. It does not apply to:

1. Explosives handling;
2. Explosives transportation;
3. Temporary storage of explosives;
4. Bombs, projectiles, or other heavily encased explosives.

Magazines containing detonators and electric detonators must be separated from:

(1) Other magazines with similar contents; or

(2) Magazines containing explosives.

Note: Definitions of barricade including artificial and natural barricade can be found in WAC 296-52-099, Definitions.

Table E-2

QUANTITY AND DISTANCE TABLE FOR SEPARATION BETWEEN MAGAZINES CONTAINING EXPLOSIVES		Separation Distance in Feet Between Magazines	
Pounds Over	**Pounds Not Over**	**Not Barricaded**	**Barricaded**
2	5	12	6
5	10	16	8
10	20	20	10
20	30	22	11
30	40	24	12
40	50	28	14
50	75	30	15
75	100	32	16
100	125	36	18
125	150	38	19

QUANTITY AND DISTANCE TABLE FOR SEPARATION BETWEEN MAGAZINES CONTAINING EXPLOSIVES		Separation Distance in Feet Between Magazines	
Pounds Over	**Pounds Not Over**	**Not Barricaded**	**Barricaded**
150	200	42	21
200	250	46	23
250	300	48	24
300	400	54	27
400	500	58	29
500	600	62	31
600	700	64	32
700	800	66	33
800	900	70	35
900	1,000	72	36
1,000	1,200	78	39
1,200	1,400	82	41
1,400	1,600	86	43
1,600	1,800	88	44
1,800	2,000	90	45
2,000	2,500	98	49
2,500	3,000	104	52
3,000	4,000	116	58
4,000	5,000	122	61
5,000	6,000	130	65
6,000	7,000	136	68
7,000	8,000	144	72
8,000	9,000	150	75
9,000	10,000	156	78
10,000	12,000	164	82
12,000	14,000	174	87
14,000	16,000	180	90
16,000	18,000	188	94
18,000	20,000	196	98
20,000	25,000	210	105
25,000	30,000	224	112
30,000	35,000	238	119
35,000	40,000	248	124
40,000	45,000	258	129
45,000	50,000	270	135

QUANTITY AND DISTANCE TABLE FOR SEPARATION BETWEEN MAGAZINES CONTAINING EXPLOSIVES		Separation Distance in Feet Between Magazines	
Pounds Over	**Pounds Not Over**	**Not Barricaded**	**Barricaded**
50,000	55,000	280	140
55,000	60,000	290	145
60,000	65,000	300	150
65,000	70,000	310	155
70,000	75,000	320	160
75,000	80,000	330	165
80,000	85,000	340	170
85,000	90,000	350	175
90,000	95,000	360	180
95,000	100,000	370	185
100,000	110,000	380	195
110,000	120,000	410	205
120,000	130,000	430	215
130,000	140,000	450	225
140,000	150,000	470	235
150,000	160,000	490	245
160,000	170,000	510	255
170,000	180,000	530	265
180,000	190,000	550	275
190,000	200,000	570	285
200,000	210,000	590	295
210,000	230,000	630	315
230,000	250,000	670	335
250,000	275,000	720	360
275,000	300,000	770	385

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NEW SECTION

WAC 296-52-53030 Table E-3 Ammonium nitrate and blasting agents separation. Table E-3

Table of Separation Distances of Ammonium Nitrate and Blasting Agents From Explosives or Blasting Agents[1]

Donor weight		Minimum separation distance of receptor when barricaded[2] (ft.)		Minimum thickness of artificial barricades[5] (in.)
Pounds over	Pounds not over	Ammonium nitrate[3]	Blasting agent[4]	
	100	3	11	12
100	300	4	14	12
300	600	5	18	12
600	1,000	6	22	12
1,000	1,600	7	25	12
1,600	2,000	8	29	12
2,000	3,000	9	32	15
3,000	4,000	10	36	15
4,000	6,000	11	40	15
6,000	8,000	12	43	20
8,000	10,000	13	47	20
10,000	12,000	14	50	20
12,000	16,000	15	54	25
16,000	20,000	16	58	25
20,000	25,000	18	65	25
25,000	30,000	19	68	30
30,000	35,000	20	72	30
35,000	40,000	21	76	30
40,000	45,000	22	79	35
45,000	50,000	23	83	35
50,000	55,000	24	86	35
55,000	60,000	25	90	35
60,000	70,000	26	94	40
70,000	80,000	28	101	40
80,000	90,000	30	108	40
90,000	100,000	32	115	40
100,000	120,000	34	122	50
120,000	140,000	37	133	50
140,000	160,000	40	144	50
160,000	180,000	44	158	50
180,000	200,000	48	173	50
200,000	220,000	52	187	60

Donor weight		Minimum separation distance of receptor when barricaded[2] (ft.)		Minimum thickness of artificial barricades[5] (in.)
Pounds over	Pounds not over	Ammonium nitrate[3]	Blasting agent[4]	
220,000	250,000	56	202	60
250,000	275,000	60	216	60
275,000	300,000	64	230	60

Note 1: These distances apply to the separation of storage. Table E-1 must be used in determining separation distances from inhabited buildings, passenger railways, and public highways.

Note 2: When the ammonium nitrate and/or blasting agent is not barricaded, the distances shown in the table must be multiplied by six. These distances allow for the possibility of high velocity metal fragments from mixers, hoppers, truck bodies, sheet metal structures, metal containers, and the like which may enclose the "donor." When ammonium nitrate is stored in a bullet resistant magazine it is recommended explosives or where the storage is protected by a bullet resistant wall, distances, and barricade thickness in excess of those prescribed in Table E-1 are not required.

Note 3: The distances in the table apply to ammonium nitrate that passes the insensitivity test prescribed in the definition of ammonium nitrate fertilizer promulgated by the Fertilizer Institute, and ammonium nitrate failing to pass a test must be stored at separation distances determined by competent persons. (Definition and Test Procedures for Ammonium Nitrate Fertilizer, the Fertilizer Institute, formerly the National Plant Food Institute, November 1964.)

Note 4: These distances apply to nitro-carbo-nitrates and blasting agents, which pass the insensitivity test prescribed in the U.S. DOT regulations.

Note 5: Acceptable barricades include either natural or artificial barricades as defined in WAC 296-52-099, Definitions.

Note 6: When the ammonium nitrate must be counted in determining the distances to be maintained from inhabited buildings, passenger railways, and public highways, it may be counted at 1/2 its actual weight because its blast effect is lower.

Note 7: Guide to use of table of recommended separation distances of ammonium nitrate and blasting agents from explosives or blasting agents.

(a) Sketch the location of all potential donors and acceptor materials together with the maximum amount of material to be allowed in the area. (Potential donors are high explosives, blasting agents, and combination of masses of detonating materials. Potential acceptors are high explosives, blasting agents, and ammonium nitrate.)

(b) Consider each donor mass in combination with each acceptor mass. If the masses are closer than table allowance, distances measured between nearest edges, the combination of masses becomes a new potential donor of weight equal to the total mass. When individual masses are considered as donors, distances to potential acceptors must be measured between edges. When combined masses within propagating distance of each other are considered as a donor, the appropriate distance to the edge of potential acceptors must be computed as a weighted distance from the combined masses:

(i) Calculation of weighted distance from combined masses:

M_2, M_3... Mn be donor masses to be combined.
M_1 is a potential acceptor mass.
D_{12} is distance from M_1 to M_2 (edge to edge).
D_{13} is distance from M_1 to M_3 (edge to edge), etc.

(ii) To find weighted distance $D_{1(2,3...n)}$ from combined masses to M_1, add the products of the individual masses and distances and divide the total by the sum of the masses:

$$D_{1(2,3...n)} = \frac{(M_2 \times D_{12}) + (M_3 \times D_{13}) + \ldots (M_n \times D_{in})}{M_2 + M_3 + \ldots M_n}$$

Propagation is possible if either an individual donor mass is less than the tabulated distance from an acceptor or a combined mass is less than the weighted distance from an acceptor.

(c) When determining the distances separating highways, railroads, and inhabited buildings from potential explosions (as prescribed in Table H-20), the sum of all masses which may propagate (i.e., lie at distances less than prescribed in the table) from either individual or combined donor masses are included. However, the ammonium nitrate must be included, only 50 percent of its weight must be used because of its reduced blast effects. In applying Table E-2, distances from highways, railroads, and inhabited buildings, distances are measured from the nearest edge of potentially explodable material.

(d) When all or part of a potential acceptor comprises explosives Class A as defined in U.S. DOT regulations, storage in bullet resistant magazines is required. Safe distances to stores in bullet resistant magazines may be obtained from the intermagazine distances described in Table E-2.

(e) Barricades cannot have line of sight openings between potential donors and acceptors, which permit blast or missiles to move directly between masses.

(f) Good housekeeping practices must be maintained around any bin containing ammonium nitrate or blasting agent. This includes keeping weeds and other combustible materials cleared within 25 feet of the bin. Accumulation of spilled product on the ground must be prevented.

[]

NEW SECTION

WAC 296-52-53040 Table E-4 Manufacturing buildings and plant magazines. Explosives manufacturing plants that have buildings and magazines, where workers are regularly employed, must meet the quantity and separation distance requirements of Table E-4, intra plant explosives quantity and distance table.

(1) Explosives manufacturing buildings must be located away from manufacturing and nonmanufacturing buildings as required by Table E-4.

(2) Magazines must be located away from manufacturing and nonmanufacturing buildings as required by Table E-4.

(3) Buildings or other facilities used for the fixed site manufacture of blasting agents (DOT classification 1.5 material) must comply with the minimum quantity of explosives and separation distances for:

(a) Magazines (Table E-2);

(b) Inhabited buildings, railways, and highways (Table E-1);

(c) Ammonium nitrate and blasting agents (Table E-3).

Table E-4

Explosives		Distance Feet
Pounds over	Pounds not over	Separate building or within substantial dividing walls
. . . .	10	
10	25	40
25	50	60
50	100	80
100	200	100
200	300	120
300	400	130
400	500	140
500	750	160
750	1,000	180
1,000	1,500	210
1,500	2,000	230
2,000	3,000	260
3,000	4,000	280
4,000	5,000	300
5,000	6,000	320
6,000	7,000	340
7,000	8,000	360
8,000	9,000	380
9,000	10,000	400
10,000	12,500	420
12,500	15,000	450
15,000	17,500	470
17,500	20,000	490
20,000	25,000	530
25,000	30,000	560
30,000	35,000	590
35,000	40,000	620
40,000	45,000	640
45,000	50,000	660
50,000	55,000	680
55,000	60,000	700
60,000	65,000	720

Explosives		Distance Feet
Pounds over	Pounds not over	Separate building or within substantial dividing walls
65,000	70,000	740
70,000	75,000	770
75,000	80,000	780
80,000	85,000	790
85,000	90,000	800
90,000	95,000	820
95,000	100,000	830
100,000	125,000	900
125,000	150,000	950
150,000	175,000	1,000
175,000	200,000	1,050
200,000	225,000	1,100
225,000	250,000	1,150
250,000	275,000	1,200
275,000	300,000	1,250

[]

NEW SECTION

WAC 296-52-53050 Table E-5 Low explosives. (1) Use Table E-5 for magazines that are restricted to:

(a) Division 1.2 or 1.3;

(b) Division 1.4, low explosives;

(c) Low explosives as classified by BATF (including black powder).

(2) Detonators cannot be stored with low explosives.

Table E-5

Table of Distances for Storage of Low Explosives

Pounds		From inhabited building distance (feet)	From public railroad and highway distance (feet)	From above ground magazine (feet)
Over	Not Over			
0	1,000	75	75	50
1,000	5,000	115	115	75
5,000	10,000	150	150	100
10,000	20,000	190	190	125
20,000	30,000	215	215	145
30,000	40,000	235	235	155
40,000	50,000	250	250	165
50,000	60,000	260	260	175
60,000	70,000	270	270	185
70,000	80,000	280	280	190
80,000	90,000	295	295	195
90,000	100,000	300	300	200
100,000	200,000	375	375	250
200,000	300,000	450	450	300

[]

NEW SECTION

WAC 296-52-5400 Storage of nonexempt fireworks and fireworks material. Display fireworks, pyrotechnic compositions, and explosive materials used to assemble fireworks and articles pyrotechnic must be stored at all times as required below unless they are in the process of manufacture, assembly, packaging, or are being transported.

[]

NEW SECTION

WAC 296-52-54005 Fireworks or articles pyrotechnic assembly facilities. (1) No more than 500 pounds (227 kg) of pyrotechnic compositions or explosive materials are permitted at one time in any fireworks mixing building, any building or area in which the pyrotechnic compositions or explosive materials are pressed or otherwise prepared for finishing or assembly, or any finishing or assembly building.

(2) All pyrotechnic compositions or explosive materials not in immediate use will be stored in covered, nonferrous containers.

(3) The maximum quantity of flash powder permitted in any fireworks process building is 10 pounds (4.5 kg).

(4) All dry explosive powders and mixtures, partially assembled display fireworks, and finished display fireworks must be removed from fireworks process buildings at the conclusion of a day's operations and placed in approved magazines.

[]

NEW SECTION

WAC 296-52-54010 Table E-6 Distances separating fireworks processes and buildings.

Net weight of fireworks[1] (pounds)	Display fireworks[2] (feet)	Consumer fireworks[3] (feet)
0-100	57	37
101-200	69	37
201-300	77	37
301-400	85	37
401-500	91	37
Above 500	Not permitted[4,5]	Not permitted[4,5]

Note 1: Net weight is the weight of all pyrotechnic compositions, and explosive materials and fuse only.

Note 2: The distances in this column apply only with natural or artificial barricades. If such barricades are not used, the distances must be doubled.

Note 3: While consumer fireworks or articles pyrotechnic in a finished state are not subject to regulation, explosive materials used to manufacture or assemble such fireworks or articles are subject to regulation. Thus, fireworks process buildings where consumer fireworks or articles pyrotechnic are being processed must meet these requirements.

Note 4: A maximum of 500 pounds of in-process pyrotechnic compositions, either loose or in partially-assembled fireworks, is permitted in any fireworks process building. Finished display fireworks may not be stored in a fireworks process building.

Note 5: A maximum of 10 pounds of flash powder, either in loose form or in assembled units, is permitted in any fireworks process building. Quantities in excess of 10 pounds must be kept in an approved magazine.

[]

NEW SECTION

WAC 296-52-54015 Table E-7 Distances separating fireworks process buildings and other specified areas.

Distance from Passenger Railways, Public Highways, Fireworks Plant Buildings used to Store Consumer Fireworks and Articles Pyrotechnic, Magazines and Fireworks Shipping Buildings, and Inhabited Buildings[3,4,5]		
Net weight of fireworks[1] (pounds)	**Display fireworks[1] (feet)**	**Consumer fireworks[2] (feet)**
0-100	200	25
101-200	200	50
201-300	200	50
301-400	200	50
401-500	200	50
Above 500	Not permitted	Not permitted

[1]Net weight is the weight of all pyrotechnic compositions, and explosive materials and fuse only.

[2]While consumer fireworks or articles pyrotechnic in a finished state are not subject to regulation, explosive materials used to manufacture or assemble such fireworks or articles are subject to regulation. Thus, fireworks process buildings where consumer fireworks or articles pyrotechnic are being processed must meet these requirements.

[3]This table does not apply to the separation distances between fireworks process buildings (see WAC 296-52-54010) and magazines (see Table E-1 and WAC 296-52-54020).

[4]The distances in this table apply with or without artificial or natural barricades or screen barricades. However, the use of barricades is highly recommended.

[5]No explosives work of any kind, except to place or move items other than explosive materials from storage, must be conducted in any building designated as a warehouse. A fireworks plant warehouse is not subject to WAC 296-52-54010 or this section, tables of distances.

[]

NEW SECTION

WAC 296-52-54020 Table E-8 Distances for the storage of display fireworks (except bulk salutes).

Net weight of fireworks[1] (pounds)	Distance between magazine and inhabited building, passenger railway, or public highway[3,4] (feet)	Distance between magazines[2,3] (feet)
0-1,000	150	100
1,001-5,000	230	150
5,001-10,000	300	200
Above 10,000	Use Table E-1	

[1]Net weight is the weight of all pyrotechnic compositions, and explosive materials and fuse only.

[2]For the purposes of applying this table, the term "magazine" also includes fireworks shipping buildings for display fireworks.

[3]The distances in this table may be halved if properly barricaded between the magazine and potential receptor sites.

[4]This table does not apply to the storage of bulk salutes. Use Table E-1.

[]

NEW SECTION

WAC 296-52-5500 Institute of makers of explosives safety analysis for risk (IMESAFR), supplement to the American table of distances. In the event the storage distance requirements in Tables E-1 through E-8 cannot practically be met, use of institute of makers of explosives safety analysis for risk (IMESAFR) is permitted with approval of the department and ONLY when the following criteria are met:

(1) Distance in Tables E-1 through E-8 are not feasible due to terrain or other physical restriction; or

(2) Location proposed by IMESAFR enhances either:

(a) Security of the explosives; or

(b) Safety of all persons is improved through reduced exposure.

(3) The final siting criteria must meet the values for annual risk as follows:

(a) Annual risk to an individual member of the public was found to be less than one in 1,000,000;

(b) Annual risk to the public group was found to be less than one in 100,000.

[]

Part F

MAGAZINE CONSTRUCTION

NEW SECTION

WAC 296-52-6000 General. Construction of explosive storage magazines must comply with the requirements of this part and the Bureau of Alcohol, Tobacco, Firearms and Explosives (BATFE) regulations.

[]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-60005 ((~~**Implementation of the Washington State Explosives Act.**~~)) **Reserved.** ((~~This chapter places into effect the Washington State Explosives Act (chapter 70.74 RCW (Revised Code of Washington)).~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-60005, filed 1/23/02, effective 3/1/02.]

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AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-60010 ((~~**Purpose and intent.**~~)) **Construction requirements.** ((~~The purpose of this chapter is to define minimum requirements for the prevention and control of hazards related to the possession, handling, and use of explosives in order to:~~

~~(1) Protect the safety and health of the general public;~~

~~(2) Protect the safety and health of explosive industry employees covered under the Washington Industrial Safety and Health Act (chapter 49.17 RCW);~~

~~(3) Develop, support, and maintain safe and healthy use of explosives in Washington state.~~)) All magazines must meet the following conditions:

(1) Have no openings except for entrances and ventilation.

(2) Have the ground around the facility slope away for drainage.

(3) Doors and hinges must be installed so they cannot be removed when they are closed or locked by:

(a) Welding; or

(b) Riveting; or

(c) Bolting nuts inside the door.

(4) Locks.

(a) Each door must be equipped with:

(i) Two mortise locks;

(ii) Two padlocks fastened in separate hasps and staples;

(iii) A combination of a mortise lock and a padlock;

(iv) A mortise lock that requires two keys to open; or

(v) A three point lock.

(b) Padlocks must:

(i) Have a minimum of five tumblers;

(ii) Have a case hardened shackle at least 3/8-inches in diameter;

(iii) Be protected with a minimum of 1/4-inch steel hoods, constructed to prevent sawing or lever action on the locks, hasps, and staples.

Note 1: These requirements do not apply to magazine doors that are adequately secured on the inside by means of a bolt, lock, or bar that cannot be operated from the outside.

Note 2: Puck style locks with their engineered guard supplied by the manufacturer meeting this criteria are acceptable for hood requirements.

(5) Ventilation.

(a) A two-inch air space must be left around ceilings and the perimeter of floors, except in doorways;

(b) Foundation ventilators must be at least four inches by six inches;

(c) Vents in the foundation, roof, or gables must be screened and offset.

(6) Exposed metal.

(a) Sparking metal construction cannot be exposed below the tops of walls in storage facilities;

(b) All nails must be blind nailed, countersunk, or nonsparking.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-60010, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-60010, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-60015 ((~~**Coverage.**~~)) **Indoor magazines.** ((~~This chapter applies to:~~

~~(1) Any person, partnership, company, corporation, government agency, or other entity;~~

~~(2) All aspects of explosives, blasting agents, and pyrotechnics including:~~

~~(a) Manufacture;~~

~~(b) Sale;~~

~~(c) Possession;~~

~~(d) Purchase;~~

~~(e) Use;~~

~~(f) Storage;~~

~~(g) Transportation;~~

~~(h) Avalanche control.~~

~~(3) Display fireworks.~~

~~Note: Class A and B display fireworks are partially exempt from the requirements of this chapter (see WAC 296-52-60020(5)).~~))

All magazines located inside a building or facility:

(1) Must be located on a ground floor that has an entrance at or a ramp to grade level;

(2) Must, if portable, have substantial wheels or casters to facilitate its removal from a building during emergencies;

(3) Must be fastened securely to a fixed object to prevent theft of the entire magazine if less than 500 lbs;

(4) Do not have to be:

(a) Bullet resistant if the building provides bullet protection;

(b) Weather resistant if the building provides weather protection;

(c) A minimum size;

(5) Cannot be located within a residence or dwelling;

(6) May have each door locked with one steel padlock (which need not be protected by a steel hood) if they are located in secure rooms that are locked as provided for a magazine.

Note: A facility with a constantly monitored security system meets the definition of a secure room.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-60015, filed 8/1/17, effective 9/1/17; WSR 06-19-074, § 296-52-60015, filed 9/19/06, effective 12/1/06. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-60015, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-60020 ((~~**Exemptions.**~~)) **Bullet resistant construction requirements.** ((~~(1) **The following are exempt from this chapter:**~~

~~(a) Explosives or blasting agents transported by railroad, water, highway, or air under the jurisdiction of the Federal Department of~~

~~Transportation (DOT), the Washington state utilities and transportation commission, and the Washington state patrol.~~

~~(b) Laboratories of schools, colleges, and similar institutions if confined to the purpose of instruction or research and if the quantity does not exceed one pound.~~

~~(c) Explosives in the forms prescribed by the official United States Pharmacopoeia.~~

~~(d) The transportation, storage, and use of explosives or blasting agents in the normal and emergency operations of:~~

~~(i) The United States agencies and departments including the regular United States military departments on military reservations;~~

~~(ii) Arsenals, navy yards, depots, or other establishments owned by, operated by, or on behalf of, the United States;~~

~~(iii) The duly authorized militia of any state; and~~

~~(iv) The emergency operations of any state department or agency, any police, or any municipality or county.~~

~~(e) A hazardous devices technician when they are carrying out:~~

~~(i) Normal and emergency operations;~~

~~(ii) Handling evidence;~~

~~(iii) Operating and maintaining a specially designed emergency response vehicle that carries no more than ten pounds of explosive materials;~~

~~(iv) When conducting training and whose employer possesses the minimum safety equipment prescribed by the Federal Bureau of Investigation (FBI) for hazardous devices work.~~

~~Note: A hazardous devices technician is a person who is a graduate of the FBI Hazardous Devices School and who is employed by a state, county, or municipality.~~

~~(f) The importation, sale, possession, and use of fireworks, signaling devices, flares, fuses, and torpedoes.~~

~~(g) Reserved.~~

~~(h) Any violation under this chapter if any existing ordinance of any city, municipality, or county is more stringent.~~

~~(i) The transportation and storage of explosive actuated tactical devices, including noise and flash diversionary devices, by local law enforcement tactical response teams and officers in law enforcement department-issued vehicles designated for use by tactical response teams and officers, provided the explosive devices are stored and secured in compliance with regulations and rulings adopted by the federal bureau of alcohol, tobacco, firearms, and explosives.~~

~~(2) **Noncommercial military explosives.** Storage, handling, and use of noncommercial military explosives are exempt from this chapter~~

~~while they are under the control of the United States government or military authorities.~~

~~(3) **Import, sale, possession, or use of:**~~

~~(a) Consumer fireworks;~~

~~(b) Signaling devices;~~

~~(c) Flares;~~

~~(d) Fuses;~~

~~(e) Torpedoes.~~

~~(4) **Consumer fireworks**. Fireworks classified as Division 1.4 explosives by U.S. DOT and regulated through the state fireworks law (chapter 70.77 RCW) and the fireworks administrative code (chapter 212-17 WAC) by the Washington state fire marshal.~~

~~**Note:** Consumer fireworks are classified as fireworks UN0336 and UN0337 by U.S. DOT (49 C.F.R. 72.101).~~

~~(5) **Partial exemption - Division 1.1, 1.2, or 1.3 display fireworks**. Display fireworks are fireworks classified as Division 1.1, 1.2, or 1.3 explosives by US DOT. Users of Division 1.1, 1.2, or 1.3 display fireworks must comply with all storage or storage related requirements (for example, licensing, construction, and use) of this chapter.~~

~~Note: Display fireworks are classified as fireworks UN0333, UN0334, or UN0335 by U.S. DOT (49 C.F.R. 172.101).~~

~~(6) **Conditional exemption small arms explosive materials.** Public consumers possessing and using:~~

~~(a) Black powder, under five pounds;~~

~~(b) Smokeless powder, under fifty pounds;~~

~~(c) Small arms ammunition;~~

~~(d) Small arms ammunition primers.~~

~~Unless these materials are possessed or used illegally or for a purpose inconsistent with small arms use.~~))

(1) Magazines will be constructed of the materials listed below to at least the thicknesses listed.

(a) Steel and wood dimensions shown are actual thickness. Nominal/manufacturer's represented thickness will not be considered.

(b) The manufacturer's represented thickness may be used to meet the concrete block and brick dimensions.

Table F-3 Steel Bullet Resistant Construction

	Liner Type				
Steel Thickness	**Hardwood**	**Softwood**	**Plywood**	**Hardwood/ Plywood**	**Unspecified Nonsparking**
1/8" (3.2 mm)	5" (127 mm)	9" (229 mm)		4" (102 mm) 3/4" (19 mm)	
3/16" (4.8 mm)	4" (102 mm)	7" (178 mm)	6 3/4" (171 mm)	3" (102mm) 3/4" (19mm)	
1/4" (6.3 mm)	2" (51 mm)	5" (127 mm)	5 1/4" (133 mm)		
3/8" (9.5 mm)	2" (51 mm)	3" (102 mm)	2 1/4" (57 mm)		
1/2" (12.7 mm)	1/4" (6.4 mm)	1/2" (12.7 mm)	3/8" (9.5 mm)	Any	
5/8" (15.9 mm)	Any	Any	Any	Any	Any

(c) Standard eight-inch concrete block with voids filled with well tamped sand/cement mixture.

(d) Standard eight-inch solid brick.

(e)(i) Eight-inch thick solid concrete.

(ii) Any type of structurally sound fire resistant material exterior with an interior lining of 1/2-inch plywood placed securely against either of the following masonry intermediate linings:

(A) A six-inch space filled with well tamped dry sand or well tamped sand/cement mixture.

(B) Four-inches of solid concrete block, solid brick, or solid concrete.

(f) Any type of fire resistant material lined with:

(i) A first intermediate layer of 3/4-inch plywood;

(ii) A second intermediate layer of 3 5/8-inch well tamped dry sand or sand/cement mixture;

(iii) A third intermediate layer of 3/4-inch plywood; and

(iv) A fourth intermediate layer of two-inch hardwood; or

(v) 14-gauge steel with an interior lining of 3/4-inch plywood.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-60020, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050,

49.17.060, 70.74..020 [70.74.020] and chapters 49.17 and 70.74 RCW. WSR 14-08-024, § 296-52-60020, filed 3/24/14, effective 5/1/14. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 06-19-074, § 296-52-60020, filed 9/19/06, effective 12/1/06; WSR 03-06-073, § 296-52-60020, filed 3/4/03, effective 8/1/03. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-60020, filed 1/23/02, effective 3/1/02.]

((~~STATE AND LOCAL GOVERNMENT JURISDICTIONS~~))

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-60030 ((~~**The department.**~~)) **Magazine heating system requirements.** ((~~(1) **Administration and enforcement.** The director of labor and industries administers and enforces all activities governed by the Washington State Explosives Act through chapter 296-52 WAC using the full resources of the department.~~

~~(2) **Authority to enter, inspect, and issue penalties.** The department may enter and inspect any location, facility, or equipment and issue penalties for any violation whenever the director has reasonable cause to think there are:~~

~~(a) Explosives;~~

~~(b) Blasting agents;~~

~~(c) Explosive materials.~~

~~(3) **Unlicensed activities**. Whenever the director requests an unlicensed person to surrender explosives, improvised devices, or their component parts, he may request the attorney general to apply to the county superior court in which the illegal practice was carried out for a temporary restraining order or other appropriate assistance.~~))

Magazine heating system requirements and the following apply:

(1) Heat sources. Magazines requiring heat must be heated by either:

(a) Hot water radiant heating; or

(b) Air directed into the magazine building by hot water or low pressure steam (15 psig) coils located outside the magazine building.

(2) Heating systems. Magazine heating systems must meet the following requirements:

(a) The radiant heating coils in the building must be installed where explosive materials or their containers cannot touch the coils and air is free to circulate between the coils and the explosive material containers.

(b) The heating ducts must be installed where the hot air released from a duct is not directed toward the explosive material or containers.

(c) The heating device used in connection with a magazine must have controls, to prevent the building temperature from exceeding 130 °F.

(d) The electric fan or pump used in the heating system for a magazine must be:

(i) Mounted outside;

(ii) Separate from the wall of the magazine;

(iii) Grounded.

(e) Electric motor, device controls, and electric switch gear.

(i) The electric fan motor and the controls must comply with WAC 296-52-50035, Lighting, Part E of this chapter.

(ii) All electrical switch gear must be located a minimum distance of 25 feet from the magazine.

(f) Water or steam heating source.

(i) A heating source for water or steam must be separated from a magazine by a distance of at least:

(A) Twenty-five feet when the heating source is electrical;

(B) Fifty feet when the heating source is fuel fired.

(ii) The area between a heating unit and a magazine cannot contain combustible materials.

(g) The storage of explosive material containers in the magazine must allow for uniform air circulation, so temperature uniformity can be maintained throughout the explosive materials.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-60030, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-60030, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-60035 ((**~~Other government entities.~~**)) **Reserved.** ((~~(1) **Law enforcement authorities.** The department:~~

~~(a) Acknowledges the legal obligation of other law enforcement agencies to enforce specific aspects or sections of the Washington State Explosives Act under local ordinances and with joint and shared authority granted by RCW 70.74.201.~~

~~(b) Will cooperate with all other law enforcement agencies in carrying out the intent of the Washington State Explosives Act and chapter 296-52 WAC.~~

~~(2) **Local government authorities.**~~

~~(a) This chapter does not prevent local jurisdictions from adopting and administering local regulations relating to explosives. Examples of local jurisdictions/regulations include:~~

~~(i) City or county government explosive ordinances;~~

~~(ii) Other government authorities such as the Washington utilities and transportation commission, the Washington state patrol, or Washington administrative codes.~~

~~(b) Local regulations must not diminish or replace any regulation of this chapter.~~

~~**Note:** A nonmandatory sample blasting ordinance for local jurisdictions is included in Appendix B.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-60035, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-60035, filed 1/23/02, effective 3/1/02.]

((~~BASIC LEGAL OBLIGATIONS~~))

NEW SECTION

WAC 246-52-60040 Lighting. (1) Battery activated safety lights or lanterns may be used in explosive storage magazines.

(2) Installed electric lighting used in an explosive storage magazine must comply with National Fire Protection Association (NFPA) Standards requirements in WAC 296-52-50035.

[]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-60045 ((~~**Responsibility to obtain an explosives license.**~~)) **Reserved.** ((~~Anyone manufacturing, purchasing, selling, offering for sale, using, possessing, transporting, or storing any explosive, improvised device, or components intended to be assembled into an explosive or improvised device must have a valid license issued by the department.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-60045, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-60050 ((~~**Unlicensed activities.**~~)) **Reduced quantity/distance (QD) hazard zone magazines.** ((~~Upon notice from the department or any law enforcement agency having jurisdiction, an unlicensed person manufacturing, offering for sale, selling, possessing, purchasing, using, storing, or transporting any explosives, improvised device, or components of explosives or improvised devices must immediately surrender those explosive materials to the department or the law enforcement agency having jurisdiction.~~)) Magazines tested and approved by a nationally recognized explosives safety panel (such as the Department of Defense Explosives Safety Board (DDESB)) for a reduced QD hazard zone will be accepted for that value by the department upon certification of the following:

(1) Owners only use these magazines only in the manner specified by the manufacturer; and

(2) Magazines are loaded only as specified and certified by the national explosives safety panel which conducted and approved the testing.

Note: Any deviation from manufacturer or safety panel specifications invalidates the reduction of QD and is grounds for immediate department inactivation of the magazine and citation.

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-60050, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-60055 ((~~**Drug use.**~~)) **Reserved.** ((~~Explosives must not be handled by anyone under the influence of:~~

~~(1) Alcohol;~~

~~(2) Narcotics;~~

~~(3) Prescription drugs and/or narcotics that endanger the worker or others;~~

~~(4) Other dangerous drugs.~~

~~**Note:** This chapter does not apply to persons taking prescription drugs and/or narcotics as directed by a physician provided their use will not endanger the blaster, workers, or any other people.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-60055, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-60055, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-60060 ((~~**License revocation, suspension, and surrender.**~~)) **Reserved.** ((~~(1) **Revocation.** The department:~~

~~(a) Will revoke and not renew the manufacturer, dealer, purchaser, blaster, or storage license of any person as a result of a disqualifying condition identified in WAC 296-52-61040, Applicant disqualifications.~~

~~(b) May revoke the license of any person who has:~~

~~(i) Repeatedly violated the requirements of this chapter;~~

~~(ii) Had a license suspended twice under this chapter.~~

~~(2) **Suspension.** The department may suspend the license of any person for a period up to six months for any violation of this chapter.~~

~~(3) **Surrender.** Revoked or suspended licenses must be surrendered immediately to the department after the chapter violators have been notified.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-60060, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and

[49.17].050. WSR 02-03-125, § 296-52-60060, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-60065 ((~~**Violation appeals.**~~)) **Reserved.** ((~~An appeal of a citation, issued for a violation of a requirement of this chapter, which results in a license suspension or revocation (WAC 296-52-60060) may be filed with the department.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-60065, filed 1/23/02, effective 3/1/02.]

((~~BASIC HAZARD PRECAUTIONS~~))

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-60075 ((~~**Hazards to life.**~~)) **Reserved.** ((~~Explosives or blasting agents must not be stored, handled, or transported if they could create a hazard to life.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-60075, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-60080 ((~~**Entry and access to explosive areas.**~~)) **Reserved.** ((~~Only the owner, owner's authorized agent, the director, or law enforcement officer(s) acting in an official capacity may enter into an:~~

~~(1) Explosives manufacturing building;~~

~~(2) Magazine;~~

~~(3) Vehicle;~~

~~(4) Other common carrier containing explosives.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-60080, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-60080, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-60085 ((~~**Abandonment of explosives.**~~)) **Reserved.**

((~~Explosives or improvised devices must not be abandoned.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-60085, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-60090 ((~~**Firearms.**~~)) **Reserved.** ((~~Firearms cannot be discharged at or against any:~~

~~(1) Magazine.~~

~~(2) Explosives manufacturing building.~~

~~(3) Explosives material.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-60090, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-60095 ((~~**Fire.**~~)) **Reserved.** ((~~(1) **Magazines/buildings.** Flame or flame producing devices must not be ignited within fifty feet of any magazine or explosives manufacturing building.~~

~~(2) **Explosives handling.**~~

~~(a) All sources of fire or flame, including smoking and matches, are prohibited within one hundred feet of the blast site while explosives are being handled or used.~~

~~(b) Explosives must not be handled near:~~

~~(i) Open flames;~~

~~(ii) Uncontrolled sparks; or~~

~~(iii) Energized electric circuits.~~

~~(3) **Fire incident precautions**. In the event of a fire:~~

~~(a) All employees must be removed to a safe area;~~

~~(b) The fire area must be guarded against intruders;~~

~~(c) The fire must not be fought where there is danger of contact with explosives.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-60095, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-60095, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-60100 ((~~**Daylight blasting.**~~)) **Reserved.** ((~~Blasting operations must be conducted during daylight hours whenever possible.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-60100, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-60105 ((~~**Notification-Blasting near utilities.**~~)) **Reserved.** ((~~Whenever blasting is being conducted in the vicinity of gas, electric, water, fire alarm, telephone, telegraph, and steam utilities, the blaster in charge must notify appropriate utility representatives:~~

~~(1) At least twenty-four hours in advance of blasting.~~

~~(2) Of the specific location and intended time of blasting.~~

~~(3) To confirm the verbal notice with a written notice.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-60105, filed 1/23/02, effective 3/1/02.]

((~~MISCELLANEOUS~~))

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-60115 ((~~**Explosive industry employers.**~~)) **Reserved.**

((~~In addition to the requirements of this chapter:~~

~~(1) Explosive industry employers must comply with other applicable DOSH requirements:~~

~~(a) Chapter 296-800 WAC, Safety and health core rules;~~

~~(b) Chapter 296-24 WAC, General safety and health standards;~~

~~(c) Chapter 296-62 WAC, General occupational health standards;~~

~~(d) Chapter 296-155 WAC, Safety standards for construction;~~

~~(e) Other industry specific standards that may apply.~~

~~(2) Manufacturers of explosives or pyrotechnics must comply with DOSH safety standards for process safety management of highly hazardous chemicals, chapter 296-67 WAC.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-60115, filed 8/1/17, effective

9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-60115, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-60120 ((~~**Variance from a chapter requirement.**~~)) **Reserved.** ((~~The director may approve a variance from a chapter requirement pursuant to RCW 49.17.080 or 49.17.090:~~

~~(1) After an application for a variance is received;~~

~~(2) After the department has conducted an investigation;~~

~~(3) When conditions exist that make the requirement impractical to use; and~~

~~(4) When equivalent means of protection are provided.~~

~~**Note:** Variance application forms may be obtained from and should be submitted to: Department of Labor and Industries, WISHA Services Division, Post Office Box 44650, Olympia, WA 98504-4650.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-60120, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-60120, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-60125 ((~~**Using standards from national organizations and federal agencies.**~~)) **Reserved.** ((~~To be in compliance with DOSH rules, the information provided in this section must be followed when safety and health standards from national organizations and federal agencies are referenced in DOSH rules.~~

~~(1) The edition of the standard specified in the DOSH rule must be used.~~

~~(2) Any edition published after the edition specified in the DOSH rule may be used.~~

~~**Note:** The federal and national consensus standards referenced in the DOSH rules are available through the issuing organization and the local or state library.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-60125, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-60125, filed 1/23/02, effective 3/1/02.]

((~~PART B~~

~~EXPLOSIVE LICENSING~~))

NEW SECTION

WAC 296-52-6100 Classification and use of magazines. (1) Magazines must be classified and used in accordance with Table F-1 and Table F-2.

(2) Indoor magazines may be used for the storage of 22.7 kg (50 lb) or less of explosive materials per building except as provided for small arms ammunition primers, black and smokeless powder in WAC 296-52-72140.

Table F-1

Classification and Use of Magazines/ Construction Features	Magazine Types				
	1	2	3	4	5
Permanent	√	√		√	√
Portable		√	√	√	√
Bullet resistant	√	√			
Fire resistant	√	√	√	√*	√*
Theft resistant	√	√	√	√	√†
Weather resistant	√	√	√	√	√
Ventilated	√	√	√	√*	√*

√: Permitted.

* Over-the-road trucks or semi-trailers used for temporary storage as Type 4 or Type 5 magazines will not be required to be fire resistant or ventilated.

† Each door of a mobile Type 5 magazine must be equipped with at least one five-tumbler padlock having a 9.5 mm (3⁄8 in.) case-hardened shackle. The lock will not be required to be hooded.

Table F-2

Storage in Magazines	Magazine Types				
	1	2	3	4	5
High explosives (1.1D) , including dynamites, cap-sensitive emulsions, slurries and water gels, cast boosters	√	√	√		
Black Powder (1.1D) ; defined as low explosive by the ATF for storage	√	√	√	√	
Detonators (1.1B)	√	√	√		

Storage in Magazines	Magazine Types				
	1	2	3	4	5
Detonating cords (1.1D, 1.2D, 1.4G)	√	√	√		
Detonators (1.4B, 1.4S)	√	√	√	√	
Safety fuse, electric squibs, igniters, and igniter cord (1.4G, 1.4S)	√	√	√	√	
Blasting agents (1.5D) (blasting agents)	√	√	√	√	√
Propellants (1.3C) ; defined as low explosive by the ATF for storage	√	√	√	√	

√: Permitted.

1. Detonators that are mass detonating must not be stored in the same magazine with other explosive materials.
2. Detonators that are not mass detonating must be permitted to be stored only with safety fuses, electric squibs, igniters, or igniter cord in Type 1, 2, 3, or 4 magazines.

[]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-61005 ((~~**Types of explosive licenses.**~~)) **Reserved.**

((~~Type of License~~ ~~Where to Look for Requirements~~

~~Dealer's~~ ~~WAC 296-52-620~~

~~Purchaser's~~ ~~WAC 296-52-630~~

~~Blaster's~~ ~~WAC 296-52-640~~

~~Manufacturer's~~ ~~WAC 296-52-650~~

~~Storage~~ ~~WAC 296-52-660~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-61005, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-61010 ((~~**License applicants must provide this information.**~~)) **Reserved.** ((~~(1) Individual applicants must provide the following information to the department:~~

~~(a) Their name;~~

~~(b) Their address; and~~

~~(c) Their citizenship.~~

~~(2) A partnership must provide:~~

~~(a) The name, address, and citizenship for each partner;~~

~~(b) The name and address of the applicant.~~

~~(3) An association or corporation must provide:~~

~~(a) The name, address, and citizenship for each officer and director;~~

~~(b) The name and address of the applicant.~~

~~(4) Applicants must:~~

~~(a) Meet any license specific requirements;~~

~~(b) Provide their Social Security number (RCW 26.23.150);~~

~~(c) Provide any information requested by the department before a new or renewal license will be issued.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-61010, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050,

49.17.060, 70.74.137, 70.74.140, 70.74.142, 70.74.144, 70.74.146, 70.74.360, and 2008 c 285. WSR 08-15-139, § 296-52-61010, filed 7/22/08, effective 12/1/08. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-61010, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-61015 ((~~**License applicants must complete department forms.**~~)) **Reserved.** ((~~(1) Applications must be completed on department forms.~~

~~(2) License application forms may be obtained from and submitted to:~~

~~Department of Labor and Industries~~

~~DOSH Services Division~~

~~Post Office Box 44655~~

~~Olympia, WA 98504-4655.~~

Note: ~~Purchaser and blaster license applications may also be obtained from explosive dealers or department service locations. (You will find a complete list of L&I service locations at www.lni.wa.gov.)~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-61015, filed 8/1/17, effective

9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-61015, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 08-15-139, filed 7/22/08, effective 12/1/08)

WAC 296-52-61020 ((**License fees.**)) **Reserved.** ((Applicable license fees must be included with new or renewal explosives license applications.

Type of License	**Fee**
Dealer's License	50.00
Purchaser's License	25.00
Blaster's License	50.00
Manufacturer's License	50.00
Storage License	(See table below)

Explosive Materials
STORAGE LICENSE FEES
RCW 70.74.140 applies

EXPLOSIVES **Maximum Weight (pounds)** of explosives permitted in each magazine or mobile site.	**DETONATORS** **Maximum Number** of detonators permitted in each magazine or mobile site.	**FEE** (for each magazine or mobile site)	
		Annual	**Permanent Storage License for Two Years**
200	133,000	50.00	100.00
1,000	667,000	125.00	250.00
5,000	3,335,000	175.00	350.00
10,000	6,670,000	225.00	450.00
50,000	33,350,000	300.00	600.00
300,000	200,000,000	375.00	750.00

Note: License fees will not be refunded when a license is revoked or suspended for cause.))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060, 70.74.137, 70.74.140, 70.74.142, 70.74.144, 70.74.146, 70.74.360, and 2008 c 285. WSR 08-15-139, § 296-52-61020, filed 7/22/08, effective 12/1/08. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 05-08-110, § 296-52-61020, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-61020, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-61025 ((~~**Verification of applicant information.**~~)) **Reserved.** ((~~The department will verify license application statements before an explosives license is issued.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-61025, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-61030 ((**~~Applicant participation.~~**)) **Reserved.** ((~~(1) Applicants must cooperate and assist the department in all aspects of the application review.~~

~~(2) Applicants must provide all information requested by the department to:~~

~~(a) Verify application statements;~~

~~(b) Help with any questions.~~

~~(3) Applicants must furnish their fingerprints to the department on department forms.~~

~~Fingerprinting and criminal history record information checks are required for management officials directly responsible for explosives operations.~~

~~(4) Applicants must pay the fee to the department for processing the fingerprint card (RCW 70.74.360(1)).~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-61030, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060, 70.74.137, 70.74.140, 70.74.142, 70.74.144, 70.74.146, 70.74.360, and 2008 c 285. WSR 08-15-139, § 296-52-61030, filed 7/22/08, effective 12/1/08. Statutory Authority: RCW 49.17.010,

[49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-61030, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-61035 ((~~**Criminal records.**~~)) **Reserved.** ((~~The Washington state patrol will provide any criminal records to the director upon request.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-61035, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-61040 ((~~**Reasons why applicants may be disqualified.**~~)) **Reserved.** ((~~(1) Licenses will not be issued for the manufacture, retail sale or purchase of explosives to any applicant who is any of the following:~~

~~(a) Does not provide proof of a valid explosive license or permit issued by the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF);~~

~~(b) Under twenty-one years of age;~~

~~(c) Whose license is suspended or revoked, except as provided in this section;~~

~~(d) Convicted in any court of a crime punishable by imprisonment for a term exceeding one year;~~

~~(e) Legally determined at the time of application to be:~~

~~(i) Mentally ill;~~

~~(ii) Insane;~~

~~(iii) Committed to a mental institution;~~

~~(iv) Incompetent due to any mental disability or disease at the time of application.~~

~~Note:~~ ~~The department will not reissue a license until competency has been legally restored.~~

~~(f) Physically ill or disabled, and cannot use explosives safely. Disqualifying disabilities may include, but are not limited to:~~

~~(i) Blindness;~~

~~(ii) Deafness;~~

~~(iii) Epileptic or diabetic seizures or coma.~~

~~Note:~~ ~~The department will not reissue a license until the applicant's physical ability is verified by a qualified physician through the appeal process (WAC 296-52-60065, Violation appeals).~~

~~(g) Who is an alien, unless:~~

~~(i) They are lawfully admitted for permanent residence; and~~

~~(ii) They are in lawful nonimmigrant status.~~

~~(h) Who has been dishonorably discharged from the United States armed forces;~~

~~(i) Who has renounced their citizenship from the United States.~~

~~(2) A user (blaster) license will not be issued if the applicant is denied a receiver or employee possessor designation by ATF.~~))

[Statutory Authority: RCW RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-61040, filed 8/1/17, effective 9/1/17; WSR 06-19-074, § 296-52-61040, filed 9/19/06, effective 12/1/06; WSR 03-10-037, § 296-52-61040, filed 4/30/03, effective 5/24/03. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-61040, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 05-08-110, filed 4/5/05, effective 6/1/05)

WAC 296-52-61045 ((~~**License terms.**~~)) **Reserved.** ((~~All licenses, including storage licenses, are valid for one year from the date of issue, unless revoked or suspended by the department prior to the expiration date.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 05-08-110, § 296-52-61045, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-61045, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-61050 ((~~**License renewal.**~~)) **Reserved.** ((~~An explosives license must be renewed before the expiration date of the license.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-61050, filed 1/23/02, effective 3/1/02.]

((~~DEALER'S LICENSE~~))

NEW SECTION

WAC 296-52-6200 Type 1 magazines. (1) A Type 1 storage facility must be a permanent structure such as:

(a) A building;

(b) An igloo;

(c) An army-type structure;

(d) A tunnel; or

(e) A dugout.

(2) A Type 1 storage facility must be bullet resistant, fire resistant, weather resistant, theft resistant, well ventilated, and constructed of masonry, wood, metal, or a combination of these materials.

(3) Construction.

(a) Walls.

(i) Masonry walls must:

(A) Consist of brick, concrete, tile, cement block, or cinder block;

(B) Be at least eight inches thick.

(ii) Hollow masonry walls must:

(A) Have all hollow spaces filled with well tamped coarse dry sand; or

(B) Have weak concrete (a mixture of one part cement to eight parts sand with enough water to dampen the mixture) while tamping in place; and

(C) Have interior walls covered with a nonsparking material.

(iii) Fabricated metal walls must:

(A) Be securely fastened to a metal framework and consist of one of the following types of metal:

(I) Sectional sheets of steel (at least number 14 gauge); or

(II) Aluminum (at least number 14 gauge).

(B) Metal wall construction must:

(I) Be lined with brick, solid cement blocks, and hardwood at least four inches thick or material of equivalent strength;

(II) Have a minimum of six-inch sand fill between interior and exterior walls;

(III) Have interior walls constructed of or covered with a nonsparking material.

(iv) Wood frame wall construction.

(A) Exterior wood walls must be covered with iron or aluminum at least number 26 gauge;

(B) Inner walls, made of nonsparking materials must be constructed with a space:

(I) A minimum of six inches between the outer and inner walls; and

(II) Filled with coarse dry sand or weak concrete.

(b) Floors must be:

(i) Constructed of a nonsparking material.

(ii) Strong enough to hold the weight of the maximum quantity to be stored.

(c) Foundations.

(i) Must be constructed of brick, concrete, cement block, stone, or wood posts.

(ii) If piers or posts are used instead of a continuous foundation, the space under the building must be enclosed with metal.

(d) Roofs.

(i) Must be covered with no less than number 26 gauge iron or aluminum fastened to a 7/8-inch sheathing, except for buildings with fabricated metal roofs.

(ii) If it is possible for a bullet to be fired directly through the roof at such an angle that it would strike a point below the top of the inner walls, storage facilities must be protected by one of the following two methods:

(A) A sand tray must be:

(I) Located at the top of the inner wall covering the entire ceiling area, except the area necessary for ventilation;

(II) Lined with a layer of building paper;

(III) Filled with at least four inches of coarse dry sand.

(B) A fabricated metal roof must be constructed of 3/16-inch plate steel lined with four inches of hardwood or material of equivalent strength. For each additional 1/16-inch of plate steel, the hardwood or material of equivalent strength lining may be decreased one inch.

(e) Doors must be bullet resistant.

(4) Igloos, army-type structures, tunnels, and dugouts must:

(a) Be constructed of reinforced concrete, masonry, metal, or a combination of these materials. Wood construction is not allowed.

(b) Have an earth mound covering of at least 24 inches on the top, sides, and rear unless the magazine meets bullet resistant construction criteria.

[]

AMENDATORY SECTION (Amending WSR 03-10-037, filed 4/30/03, effective 5/24/03)

WAC 296-52-62005 ((~~**Responsibility to obtain a dealer's license.**~~)) **Reserved.** ((~~Any person, firm, partnership, corporation, or public agency wanting to purchase explosives (including black powder and blasting agents) for resale, must have a valid dealer's license~~

~~issued by the department and a valid license or permit issued by the ATF.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 03-10-037, § 296-52-62005, filed 4/30/03, effective 5/24/03. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-62005, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-62010 ((~~**Dealer applicant information.**~~)) **Reserved.**

((~~The dealer applicant must:~~

~~(1) Give the reason they want to participate in the business of dealing in explosives.~~

~~(2) Provide information required by WAC 296-52-61010, License applicants must provide this information.~~

~~(3) Provide other pertinent information required by the department.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-62010, filed 8/1/17, effective

9/1/17; WSR 05-08-110, § 296-52-62010, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-62010, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-62025 ((~~**Prohibit explosives items from sale or display in these areas.**~~)) **Reserved.** ((~~Explosives, improvised devices, or blasting agents cannot be sold, displayed, or exposed for sale on any:~~

~~(1) Highway;~~

~~(2) Street;~~

~~(3) Sidewalk;~~

~~(4) Public way; or~~

~~(5) Public place.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-62025, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-62025, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-62030 ((~~**Container labeling.**~~)) **Reserved.** ((~~Any package, cask, or can containing any explosive, nitroglycerin, dynamite, or black and/or smokeless powder put up for sale or delivered to any warehouse worker, dock, depot, or common carrier, must be properly labeled with its explosive classification.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-62030, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-62035 ((~~**Authorized agent information.**~~)) **Reserved.**

((~~A dealer must make sure the purchaser provides a list of people on their authorized agent list with the following information:~~

~~(1) Name;~~

~~(2) Address;~~

~~(3) Driver's license number or valid identification;~~

~~(4) Social Security number (as required by RCW 26.23.150);~~

~~(5) Place of birth;~~

~~(6) Date of birth.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-62035, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-62035, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-62040 ((**~~Verification of customer identity.~~**)) **Reserved.** ((~~(1)~~ **~~Orders.~~**

~~(a) An order for explosives can be placed:~~

~~(i) In person;~~

~~(ii) By telephone; or~~

~~(iii) In writing.~~

~~(b) The dealer must receive proper authorization and identification from the person placing the order to verify the person is either the:~~

~~(i) Purchaser; or~~

~~(ii) Purchaser's authorized agent.~~

~~**Note:** This requirement does not apply to licensed common carrier companies when the common carrier:~~
~~1. Is transferring explosive materials from the seller to the purchaser; and~~
~~2. Complies with transfer practices of the state and federal U.S. DOT regulations.~~

~~(2) **Deliveries.** The dealer must:~~

~~(a) Not distribute explosive materials to an unauthorized person;~~

~~(b) Make sure the recipient is the purchaser or the purchaser's authorized agent;~~

~~(c) Verify the recipient's identity from a photo identification card (for example, driver's license);~~

~~(d) Obtain the:~~

~~(i) Purchaser's magazine license number when explosives are delivered to a storage magazine.~~

~~(ii) Legal signature of the purchaser or the purchaser's authorized agent on a receipt documenting the explosives were received.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-62040, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-62040, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-62045 ((~~**Recordkeeping and reporting.**~~)) **Reserved.**

((~~(1) **Sale documentation.** A dealer must document the following information when an explosive materials order is placed. A dealer's record must include the:~~

~~(a) Date explosive materials were sold;~~

~~(b) Purchaser's name and license number;~~

~~(c) Name of the person authorized by the purchaser to physically receive the explosive materials;~~

~~(d) Kind of explosive materials sold;~~

~~(e) Amount of explosive materials sold;~~

~~(f) Date code.~~

~~**Note:** Black powder sales less than five pounds are not required to be reported to the department.~~

~~(2) **Retention of records and receipts.** Dealers must keep:~~

~~(a) Signed receipts for a minimum of one year from the date explosives were purchased;~~

~~(b) Records of explosives purchased and sold for a minimum of five years.~~

~~(3) **Monthly report.**~~

~~(a) A monthly report of the dealer's records must be submitted to the department at the following address:~~

~~Department of Labor and Industries~~

~~DOSH Services Division~~

~~Post Office Box 44655~~

~~Olympia, WA 98504-4655~~

~~(b) Dealer records must be received by the 10th day of each month.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-62045, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-62045, filed 1/23/02, effective 3/1/02.]

((~~PURCHASER'S LICENSE~~))

NEW SECTION

WAC 296-52-6300 Type 2 magazines. (1) A Type 2 storage facility must be:

(a) A box, trailer, semi-trailer, or other movable facility. When an unattended vehicular magazine is used, the wheels must be removed or it must be effectively immobilized by kingpin locking devices or other methods approved by the department.

(b) Fire resistant, weather resistant, theft resistant, and well ventilated.

(c) A minimum of one cubic yard.

(d) Supported to prevent direct contact with the ground or floor.

(2) Outdoor Type 2 magazines. Exterior, doors, and top openings.

(a) Must be bullet resistant.

(b) Magazines with top openings must have lids with water resistant seals or lids that overlap the sides by a minimum of one inch when closed.

(3) Indoor Type 2 magazines.

(a) Exterior, doors, and top openings must be constructed of:

(i) Twelve gauge steel or greater lined with a nonsparking material; or

(ii) Twenty-six gauge steel lined with at least two inches of hardwood that is well braced at the corners.

(b) Must be separated from other occupied areas by a fire wall.

(4) Detonator boxes for quantities of 100 or less detonators will:

(a) Be constructed of at least 12 gauge steel;

(b) Lined with a nonsparking material;

(c) Having at least one padlock (does not have to be hooded).

[]

AMENDATORY SECTION (Amending WSR 03-10-037, filed 4/30/03, effective 5/24/03)

WAC 296-52-63005 ((~~**Responsibility to obtain a purchaser's license.**~~)) **Reserved.** ((~~Any person, firm, partnership, corporation, or public agency wanting to purchase explosives or blasting agents must have a valid purchaser's license or permit issued by the department and a valid license issued by the ATF.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 03-10-037, § 296-52-63005, filed 4/30/03, effective 5/24/03. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-63005, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-63010 ((~~**Applicant information.**~~)) **Reserved.**

((~~Applicants must provide the following information to the department:~~

~~(1) The reason explosives or blasting agents will be used;~~

~~(2) The location where explosives or blasting agents will be used;~~

~~(3) The kind of explosives or blasting agents to be used;~~

~~(4) The amount of explosives or blasting agents to be used;~~

~~(5) An explosives storage plan:~~

~~(a) Documenting proof of ownership of a licensed storage magazine; or~~

~~(b) With a signed authorization to use another person's licensed magazine; or~~

~~(c) With a signed statement certifying that the explosives will not be stored.~~

~~(6) An authorized agent list, if the purchaser chooses to authorize others to order or receive explosives on their behalf;~~

~~(7) The identity and current license of the purchaser's blaster;~~

~~(8) Information required by WAC 296-52-61010, License applicants must provide this information;~~

~~(9) Any other pertinent information requested by the department.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-63010, filed 8/1/17, effective 9/1/17; WSR 05-08-110, § 296-52-63010, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-63010, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-63020 ((**~~Authorized agents.~~**)) **Reserved.** ((~~(1) **Required information.**~~

~~The purchaser must provide the following written information for people on their authorized agent list:~~

~~(a) Legal name;~~

~~(b) Address;~~

~~(c) Driver's license number or other valid identification;~~

~~(d) Date of birth;~~

~~(c) Place of birth.~~

~~(2) **List distribution.** The purchaser must provide a current authorized agent list to:~~

~~(a) The department when applying for a new or renewal license;~~

~~(b) Any dealer the purchaser plans to order explosive materials from, prior to placing the order.~~

~~(3) **Notification of list changes.** The purchaser must make sure the dealer's and department's authorized agent lists are updated as changes occur.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-63020, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-63020, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-63025 ((~~**Explosive order deliveries.**~~)) **Reserved.**

((~~(1) **Receiver identification.** Any person receiving explosives purchased from a dealer must:~~

~~(a) Provide proper identification and prove to the satisfaction of the dealer that they are:~~

~~(i) The purchaser; or~~

~~(ii) Their authorized agent.~~

~~(b) Sign their legal signature on the dealer's receipt.~~

~~(2) **Delivery locations.** Explosives must be delivered into:~~

~~(a) Authorized magazines;~~

~~(b) Approved temporary storage; or~~

~~(c) Handling areas.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-63025, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-63025, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-63030 ((~~**Notify the department of blaster changes.**~~)) **Reserved.** ((~~The purchaser must:~~

~~(1) Notify the department when the licensed blaster changes.~~

~~(2) Provide their current blaster's license number to the department.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-63030, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-63030, filed 1/23/02, effective 3/1/02.]

((~~BLASTER'S LICENSE~~))

NEW SECTION

WAC 296-52-6400 Type 3 magazines. (1) Are "day-box" or other portable magazines for temporary attended storage unless specified separately by this chapter. Type 3 magazines must be:

(a) Fire resistant;

(b) Theft resistant;

(c) Weather resistant.

(2) Construction. Exterior, doors, and top openings.

(a) Twelve gauge or greater steel.

(b) Lined with 1/2 inch plywood or masonite.

(c) Have at least one lock (does not have to be hooded).

[]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-64005 ((~~**Responsibility to obtain a blaster's license.**~~)) **Reserved.** ((~~(1) No one may conduct a blasting operation without a valid blaster's license issued by the department.~~

~~**Note:** A blaster's license is not required for a "hand loader."~~

~~(2) **Blaster license classifications table.** The following information shows classifications for blasting licenses:~~

~~(a) **Classification list assignment.** Classification list assignment is determined by the use of single or multiple series charges; and the knowledge, training, and experience required to perform the type of blasting competently and safely.~~

~~(b) **Multiple list applications.** When an applicant wants to apply for multiple classifications and the classifications desired are from two or more classification table lists:~~

~~(i) All classifications must be requested on the application;~~

~~(ii) Qualifying documentation for all classifications being applied for must be included in the applicant's resume (WAC 296-52-~~

64050, Applicant information). Training and experience may fulfill qualification requirements in multiple classifications.

(c) **Request classifications not lists.** Applicants must request specific classifications (not list designations) on their blaster application. Licenses are not issued or endorsed for Classification Table lists A, B, or C.

(d) **License additions.** To add a classification to an existing license, see WAC 296-52-64085, Changes to a blaster's license classification.

License Classifications Table

LIST A		LIST B		LIST C	
AB	Aerial Blasting	DE	Demolition	BT	Bomb Technician*
AG	Agriculture	SB	Surface Blasting*	UL	Unlimited*
AV	Avalanche Control	UB	Underground Blasting		
ED	Explosives Disposal*	UW	Underwater Blasting		
FO	Forestry*				
LE	Law Enforcement*				
IO	Industrial Ordnance				
SE	Seismographic				
TS	Transmission Systems				
WD	Well Drilling				

* Detailed classification information.

(e) **Aerial blasting.** Will require experience and passing aerial blasting test.

(f) **Bomb technician.** Disposal of bombs, illegal fireworks and explosive devices.

~~(g) **Explosives disposal.** Disposal of explosive materials by licensed blasters.~~

~~(h) **Forestry.** Includes logging, trail building, and tree topping.~~

~~(i) **Law enforcement.** Diversionary devices, explosive detection K-9 dog handlers, crowd control devices (stingers) requires taking a handlers test. Tactical entry (breaching) requires taking the tactical entry test.~~

~~(j) **Surface blasting.** Includes construction, quarries, and surface mining.~~

~~(k) **Unlimited.** Includes all classifications except underground blasting and law enforcement.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-64005, filed 8/1/17, effective 9/1/17; WSR 06-19-074, § 296-52-64005, filed 9/19/06, effective 12/1/06; WSR 05-08-110, § 296-52-64005, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-64005, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-64020 ((~~**General qualifications for blasters.**~~)) **Reserved.** ((~~(1) **Physical condition.** An applicant must be in good physical condition.~~

~~(2) **Drug use.** An applicant cannot be addicted to narcotics, intoxicants, or similar types of drugs.~~

~~**Note:** This rule does not apply to physician prescribed drugs and/or narcotics when taken as directed if their use will not place the blaster, or other employees in danger.~~

~~(3) **Knowledge, experience, and performance in transportation, storage, handling, and use of explosives.** A blaster applicant must:~~

~~(a) Have working knowledge of state and local explosives laws and regulations;~~

~~(b) Have adequate blaster training, experience, and knowledge;~~

~~(c) Be able to:~~

~~(i) Safely perform the type of blasting to be used; and~~

~~(ii) Recognize hazardous conditions.~~

~~(d) Be competent in the use of each type of blasting method to be used;~~

~~(e) Have the ability to understand and give written and oral directions.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-64020, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and

[49.17].050. WSR 02-03-125, § 296-52-64020, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-64030 ((~~**List A qualifications.**~~)) **Reserved.** ((~~To be considered for a blaster's license, limited to one or more List A classifications, an applicant must have a minimum of forty hours documented training accrued during the previous six years.~~

~~(1) The training must include a minimum of one of these three requirements:~~

~~(a) Eight hours basic blaster safety classroom training and thirty-two hours classification specific field training experience under a qualified blaster;~~

~~(b) Sixteen hours basic blaster safety classroom training and twenty-four hours classification specific field training experience under a qualified blaster;~~

~~(c) Twelve months classification specific field training experience.~~

~~(2) Aerial blasting classification will require:~~

~~(a) Standard avalanche control blaster's license;~~

~~(b) Experience requirement of five missions under the supervision of a licensed aerial blaster;~~

~~(c) Successful completion of a written exam.~~

~~Note: Additional personnel on board with a standard avalanche control blaster's license may log each mission toward the aerial blasting endorsement experience requirement.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-64030, filed 8/1/17, effective 9/1/17; WSR 06-19-074, § 296-52-64030, filed 9/19/06, effective 12/1/06. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-64030, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-64035 ((~~**List B qualifications.**~~)) **Reserved.** ((~~To be considered for a blaster's license, which includes one or more List B classifications, the applicant must meet one of the following requirements listed below:~~

~~(1) Eighteen months of documented blasting experience which includes a minimum of twelve months of documented experience in List A~~

~~and six months documented blasting experience in each classification being applied for in List B;~~

~~(2) Twelve months of documented blasting experience in the past six years in the specific classification being applied for in List B.~~

~~Note: Up to eighty hours of classroom training may be substituted for experience.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-64035, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-64035, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-64040 ((**~~List C qualifications.~~**)) **Reserved.** ((~~(1) **Unlimited classification.** To be considered for unlimited classification, the applicant must submit a detailed resume documenting:~~

~~(a) Experience in the majority of the classifications in Lists A and B;~~

~~(b) A minimum of five years of continuous full time blasting experience in the explosives industry where blasting has been the applicant's primary responsibility during the previous five years.~~

~~(2) **Bomb technician.** To be considered for a bomb technician classification, the applicant must:~~

~~(a) Submit a copy of the certificate of graduation from the FBI Hazardous Devices School (HDS) basic course in Redstone, Alabama;~~

~~(b) Submit a copy of the applicant's FBI Bomb Technician Certification identification card. The FBI Bomb Technician Certification card must bear a date that indicates that it is current at the time of application;~~

~~(c) Submit a letter from the applicant's law enforcement agency's head (chief or sheriff) stating that the applicant is a full-time employee assigned to perform bomb technician duties as part of an FBI accredited bomb squad.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-64040, filed 8/1/17, effective 9/1/17; WSR 05-08-110, § 296-52-64040, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-64040, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-64045 ((~~**Application.**~~)) **Reserved.**

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-64045, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-64050 ((~~**Blaster license applicant information.**~~)) **Reserved.** ((~~An applicant for a blaster's license must provide the following information to the department:~~

~~(1) The application must be signed by the blasting course instructor and the qualified blaster the applicant trained under;~~

~~(2) A detailed resume of blasting training and experience;~~

~~(3) Satisfactory evidence of competency in handling explosives;~~

~~(4) Information required by WAC 296-52-61010, License applicants must provide this information.~~

~~**Note:** The department may request additional information for the classification being applied for upon review of a blaster's resume.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-64050, filed 8/1/17, effective 9/1/17; WSR 05-08-110, § 296-52-64050, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-64050, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-64055 ((~~**Blaster license testing.**~~)) **Reserved.** ((~~List A and B applicants must pass a written test prepared and administered by the department. List C applicants are exempt from testing.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-64055, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-64065 ((~~**Blaster license limits.**~~)) **Reserved.** ((~~(1) **A blaster's license documents:**~~

~~(a) The classifications the blaster is authorized to perform~~

~~(b) Any limitations imposed on the licensee.~~

~~(2) The licensee cannot:~~

~~(a) Perform blasting for which they are not licensed; or~~

~~(b) Exceed the limits specified on the license.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-64065, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-64065, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-64075 ((**~~Blaster license disclosure.~~**)) **Reserved.** ((~~A blaster must provide their blaster's license and a valid identification card to the department or other law enforcement representatives upon request.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-64075, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-64080 ((~~**Purchaser disclosure.**~~)) **Reserved.** ((~~A blaster may be required to verify the name of the explosives purchaser.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-64080, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-64085 ((~~**Changes to a blaster's license classification.**~~)) **Reserved.** ((~~Additional blaster classifications may be added to a license. Applicants must:~~

~~(1) Submit a detailed resume which documents blasting experience in the specific classification being applied for;~~

~~(2) Pass a written exam prepared and administered by the department.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-64085, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-64085, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-64090 ((~~**Blaster license renewal.**~~)) **Reserved.** ((~~The following requirements are for license renewal:~~

~~(1) General applicant qualifications, WAC 296-52-64020, General qualifications, apply.~~

~~(2) Renewal qualifications include the requirements of WAC 296-52-64090 License renewal, through WAC 296-52-64100, List C renewal qualifications.~~

~~(3) Training, experience, and responsibility requirements must be accrued during the one year before the application is submitted.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-64090, filed 8/1/17, effective 9/1/17; WSR 05-08-110, § 296-52-64090, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-64090, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-64095 ((~~**List A and B renewal qualifications.**~~)) **Reserved.** ((~~The following requirements are for List A and B renewal qualifications:~~

~~(1) An application for a license renewal must include documentation of:~~

~~(a) Blasting experience, by providing a minimum of one blast record; or~~

~~(b) Successful completion of eight hours of basic blaster's classroom training. The blasting course instructor must witness the submitted documentation.~~

~~(2) List A or B applicants who do not meet the minimum classification qualifications must pass a written exam administered by the department.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-64095, filed 8/1/17, effective 9/1/17; WSR 05-08-110, § 296-52-64095, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-64095, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-64100 ((~~**List C renewal qualifications.**~~)) **Reserved.**

((~~The following requirements are for List C renewal qualifications:~~

~~(1) **Unlimited classification.** To be considered for a renewal of an unlimited license, an applicant must submit a detailed resume documenting:~~

~~(a) Experience in the majority of classification in List A and B;~~

~~(b) Full-time blasting experience in the explosives industry, where blasting has been the applicant's primary responsibility.~~

~~(2) **Bomb technician.** To be considered for a renewal of the bomb technician classification, an applicant must:~~

~~(a) Have continuous employment as a law enforcement bomb technician accrued during the previous year;~~

~~(b) Submit a copy of their FBI Bomb Technician Certification identification card bearing the name of the person making application and an expiration date that indicates that the card is current and valid as of the date of renewal;~~

~~(c) Submit a letter from the applicant's law enforcement agency's head (chief or sheriff) stating that the applicant is a full-time employee assigned to perform bomb technician duties as part of an FBI accredited bomb squad.~~

~~**Note:** If the applicant's card has expired at the time of renewal, they need to show that they are enrolled in the next available course at Redstone, Alabama.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-64100, filed 8/1/17, effective 9/1/17; WSR 05-08-110, § 296-52-64100, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-64100, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-650 ((~~**Manufacturer's license.**~~)) **Reserved.**

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-650, filed 1/23/02, effective 3/1/02.]

NEW SECTION

WAC 296-52-6500 Type 4 magazines. (1) A Type 4 storage facility must:

(a) Be a building, an igloo, an army-type structure, a tunnel, a dugout, a box, a trailer, semi--trailer, or other mobile facility;

(b) Be fire resistant, weather resistant, and theft resistant;

(c) Have the wheels removed or effectively immobilized by kingpin locking devices or other methods approved by the department, when an unattended vehicular magazine is used.

(2) Construction Type 4 magazines:

(a) Must be constructed of masonry, metal covered wood, fabricated metal, or a combination of these materials.

(b) Foundations must be constructed of:

(i) Brick;

(ii) Concrete;

(iii) Cement block;

(iv) Stone;

(v) Metal; or

(vi) Wood posts.

(c) Doors must be metal or solid wood covered with metal.

(d) Outdoor Type 4 magazines:

(i) The space under the building must be enclosed with fire resistant material, if piers or posts replace continuous foundation.

(ii) The walls and floors must be made or covered with a nonsparking material or lattice work.

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AMENDATORY SECTION (Amending WSR 05-08-110, filed 4/5/05, effective 6/1/05)

WAC 296-52-65005 ((~~**Responsibility to obtain a manufacturer's license.**~~)) **Reserved.** ((~~Any person, firm, partnership, corporation, or public agency wanting to manufacture explosives or blasting agents, or use any process involving explosives as a component part in the manufacture of any device, article, or product must have a valid manufacturer's license from the department and a valid permit or license issued by the ATF.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 05-08-110, § 296-52-65005, filed 4/5/05, effective 6/1/05; WSR 03-10-037, § 296-52-65005, filed 4/30/03, effective 5/24/03. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-65005, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-65010 ((~~**Manufacturer applicant information.**~~)) **Reserved.** ((~~The manufacturer applicant must provide the following information to the department:~~

~~(1) The reason the applicant wants to manufacture explosives.~~

~~(2) The manufacturing or processing location.~~

~~(3) The kind of explosives manufactured, processed, or used.~~

~~(4) The distance that the explosives manufacturing building is located, or intended to be located, from other buildings, magazines, inhabited buildings, railroads, highways, and public utility transmission systems.~~

~~(5) A site plan. The site plan must:~~

~~(a) Include the distance each manufacturing building is located from:~~

~~(i) Other buildings on the premises where people are employed;~~

~~(ii) Other occupied buildings on adjoining property;~~

~~(iii) Buildings where customers are served;~~

~~(iv) Public highways;~~

~~(v) Utility transmission systems.~~

~~(b) Demonstrate compliance with:~~

~~(i) Applicable requirements of the Washington State Explosives Act;~~

~~(ii) The separation distance requirements of this chapter.~~

~~(c) Identify and describe all natural or artificial barricades used to influence minimum required separation distances;~~

~~(d) Identify the nature and kind of work being performed in each building;~~

~~(e) Specify the maximum amount and kind of explosives or blasting agents to be permitted in each building or magazine at any one time.~~

~~(6) Information required by WAC 296-52-61010, License applicants must provide this information.~~

~~(7) Other pertinent information required by the department.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-65010, filed 8/1/17, effective 9/1/17; WSR 05-08-110, § 296-52-65010, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-65010, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-65015 ((~~**Manufacturing site inspections.**~~)) **Reserved.**

((~~(1) The department will inspect all manufacturing or processing locations:~~

~~(a) Before they are placed in operation or service; and~~

~~(b) Prior to licensing.~~

~~(2) The department will schedule inspections:~~

~~(a) Once a complete application is received;~~

~~(b) At the earliest available and mutually agreeable date.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-65015, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-65015, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-65020 ((~~**Conditions of a manufacturer's license.**~~)) **Reserved.** ((~~The department will issue a license to the manufacturer applicant(s) provided:~~

~~(1) The required inspection confirms that the site plan is accurate and the facilities comply with applicable regulations of the department.~~

~~(2) The applicant(s) or operating superintendent and employees are sufficiently trained and experienced in the manufacture of explosives.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-65020, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-65025 ((~~**Annual inspection.**~~)) **Reserved.** ((~~The department will inspect manufacturing or processing locations annually.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-65025, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-65030 ((~~**Site plan.**~~)) **Reserved.** ((~~The site plan must include:~~

~~(1) A copy of the site plan and manufacturer's license must be posted in the main office of each manufacturing plant.~~

~~(2) The site plan must be maintained and updated to reflect the current status of manufacturing facilities, occupancy changes, or other pertinent information.~~

~~(3) Notifying the department:~~

~~(a) When a significant change occurs in the site plan;~~

~~(b) For a consultation before changing operations if the change is of such nature or magnitude that compliance with requirements of this chapter is questionable.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-65030, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-65030, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-660 ((~~**Storage license.**~~)) **Reserved.**

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-660, filed 1/23/02, effective 3/1/02.]

NEW SECTION

WAC 296-52-6600 Type 5 magazines. (1) A Type 5 storage facility must be a building, an igloo, an army-type structure, a tunnel, a dugout, a box, or a trailer, semi-trailer, or other mobile facility.

(2) Trailers, semi-trailers, and similar vehicular magazines:

(a) Each door must be locked with at least one 3/8-inch diameter steel padlock.

(b) Locks do not need to be protected by a steel hood, if the door hinges and lock hasp are securely fastened to the magazine and to the door frame.

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AMENDATORY SECTION (Amending WSR 05-08-110, filed 4/5/05, effective 6/1/05)

WAC 296-52-66005 ((~~**Responsibility to obtain a storage license.**~~)) **Reserved.** ((~~Any person, firm, partnership, corporation, or public~~

~~agency wanting to store explosive materials must have a valid license from the department.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 05-08-110, § 296-52-66005, filed 4/5/05, effective 6/1/05; WSR 03-10-037, § 296-52-66005, filed 4/30/03, effective 5/24/03. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-66005, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-66010 ((~~**Storage applicant information.**~~)) **Bulk storage bins.** ((~~Applicants must provide the following information to the department:~~

~~(1) The address or a legal description of the existing or proposed magazine or mobile storage site must be clearly identified;~~

~~(2) The reason explosive materials will be stored;~~

~~(3) The kind of explosives or blasting agents that will be stored;~~

~~(4) The maximum quantity of explosive materials that are or will be stored;~~

~~(5) Identify the total weight, in pounds, of all explosive materials to be stored on-site;~~

~~(6) The distance that the magazine is located or intended to be located from other magazines, inhabited buildings, explosives manufacturing buildings, railroads, highways, and public utility transmission systems;~~

~~(7) How long the storage license is needed;~~

~~(8) Information required by WAC 296-52-61010, License applicants must provide this information;~~

~~(9) Any other pertinent information requested by the department.~~)) (1) Any bulk storage bin, including supports, must be:

(a) Waterproof;

(b) Constructed of compatible materials;

(c) Adequately supported and braced to withstand the combined force of all loads, including impact from product movement within the bin and accidental vehicle contact with the support legs.

(2) Discharge gates must be designed to lock and close tightly to:

(a) Prevent leakage of the stored product; and

(b) Lock.

(3) Loading manways or access hatches must be:

(a) Hinged or attached to the bin; and

(b) Designed to lock.

(4) Electric conveyors used for loading or unloading bins must:

(a) Comply with the requirements of WAC 296-800-280, Basic electrical rules;

(b) Be designed to minimize corrosion damage.

(5) Separation distances. The following separation distances must be followed:

(a) Blasting agent bins: Bins containing blasting agents must meet the distance requirements of:

(i) Table E-1, in reference to separation from inhabited buildings, passenger railroads, and public highways; or

(ii) Table E-3, in reference to separation from other explosives including blasting agent storage facilities.

(b) Ammonium nitrate bins: Bins containing ammonium nitrate must meet the distance requirements of Table E-3 in reference to separation of blasting agent and explosives storage.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-66010, filed 8/1/17, effective 9/1/17; WSR 05-08-110, § 296-52-66010, filed 4/5/05, effective 6/1/05.

Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-66010, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-66015 ((~~**Storage site inspections.**~~)) **Reserved.** ((~~(1) The department will inspect magazines, mobile storage sites, and manufacturing plants:~~

~~(a) Before being placed in operation or service;~~

~~(b) Prior to licensing.~~

~~(2) The department will schedule inspections:~~

~~(a) Once a complete application is received;~~

~~(b) At the earliest available and mutually agreeable date.~~

~~**Note:** See WAC 296-52-66040, Annual storage inspection, for mobile storage site qualifications.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-66015, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-66015, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-66020 ((~~**Demonstration of handling and storage experience.**~~)) **Reserved.** ((~~Applicants or officers, agents, or employees of the applicant, must demonstrate satisfactory experience in:~~

~~(1) Handling explosives.~~

~~(2) The storage requirements for any type of explosive materials to be stored.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-66020, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-66020, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-66030 ((~~**Storage license number.**~~)) **Reserved.** ((~~The storage license number must:~~

~~(1) Be permanently affixed on the inside and outside of each storage magazine.~~

~~(2) Stay with each magazine throughout its life.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-66030, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-66035 ((~~**Storage limit.**~~)) **Reserved.** ((~~A storage license documents the storage limits imposed on the licensee. Storage cannot exceed the limits specified on the license.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-66035, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-66040 ((~~**Annual storage inspection.**~~)) **Reserved.**

((~~Magazines, mobile storage sites, and manufacturing plants will be inspected annually.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-66040, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-66045 ((~~**Mobile storage sites.**~~)) **Reserved.** ((~~Semi-trailers or other mobile facilities used to transport blasting agents on site or on highways are considered adequate for blasting agent storage, provided they meet:~~

~~(1) U.S. DOT requirements for transportation of blasting agents.~~

~~(2) The requirements of Table H-20, Table of Distances for Storage of Explosives with respect to inhabited buildings, passenger railways, and public highways.~~

~~(3) The requirements of Table H-22, Separation Distances of Ammonium Nitrate and Blasting Agents from Explosives or Blasting Agents with respect to one another.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-66045, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 06-19-074, filed 9/19/06, effective 12/1/06)

WAC 296-52-66050 ((~~**Moving a licensed magazine.**~~)) **Reserved.**

((~~(1) When a magazine is moved the owner of the magazine must notify the department with:~~

~~(a) The license number of the magazine~~

~~(b) The new location of the magazine~~

~~(2) A magazine may be moved on a job site within a reasonable distance from the original location stated on the application without notifying the department, provided the:~~

~~(a) New location complies with the requirements of this chapter and the Washington State Explosives Act~~

~~(b) Magazine can be quickly located for an inspection.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 06-19-074, § 296-52-66050, filed 9/19/06, effective 12/1/06. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-66050, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-66053 ((~~**Altering or destroying a licensed magazine.**~~)) **Reserved.** ((~~(1) When a magazine is altered, the licensee must notify the department with:~~

~~(a) The license number of the magazine;~~

~~(b) The specific alterations made to the magazine.~~

~~(2) When a magazine is destroyed, the licensee must notify the department with the license number of the magazine.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-66053, filed 8/1/17, effective 9/1/17; WSR 06-19-074, § 296-52-66053, filed 9/19/06, effective 12/1/06.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-66057 ((~~**Transfer, sale or lease of a magazine or mobile storage site.**~~)) **Reserved.** ((~~(1) When a magazine or mobile storage site is leased, the owner of the magazine or mobile storage site must notify the department with:~~

~~(a) The magazine license number or site license number;~~

~~(b) The name of the individual or company leasing the magazine or mobile storage site.~~

~~(2) When a magazine or mobile storage site is transferred or sold from one entity to another, the previous owner/licensee must notify the department with:~~

~~(a) The magazine license number or site license number;~~

~~(b) The date of the sale or transfer;~~

~~(c) The name of the individual or company to whom the magazine or mobile storage site was sold or transferred to;~~

~~(d) Who will be licensing the magazine or mobile storage site;~~

~~(e) The name of the contact person and phone number.~~

~~(3) A new owner/licensee of a magazine or mobile storage site is responsible for the safe operation of the magazine or mobile storage site. They must also:~~

~~(a) Submit a magazine storage application to the department;~~

~~(b) Pay the license fee for a minimum of one year;~~

~~(c) Obtain a storage license prior to storing explosive materials in the magazine or at the mobile storage site.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-66057, filed 8/1/17, effective

9/1/17; WSR 06-19-074, § 296-52-66057, filed 9/19/06, effective 12/1/06.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-66060 ((~~**Reporting changes in conditions.**~~)) **Reserved.**

((~~Any change in conditions around a magazine, mobile storage site, or manufacturing plant that could adversely affect compliance with any requirement of this chapter must be promptly reported to the department. Examples of reportable changes include:~~

~~(1) Construction of occupied buildings.~~

~~(2) Public utilities transmission systems.~~

~~(3) Roads or railroads that have been built closer to the manufacturing plant or magazine.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-66060, filed 1/23/02, effective 3/1/02.]

((~~PART C~~

~~USE OF EXPLOSIVE MATERIALS~~))

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-67010 ((~~**Blaster in charge responsibilities.**~~)) **Reserved.** ((~~The blaster in charge is responsible for all aspects of explosives use and must:~~

~~(1) Carry a current license with the correct blaster classification for the type of blasting being performed.~~

~~(2) Comply with all federal, state, and local government regulations.~~

~~(3) Meet the general license qualifications identified in WAC 296-52-64020, General qualifications.~~

~~(4) Use every reasonable precaution to ensure the safety of the general public and workers. Reasonable precautions include the use of:~~

~~(a) Blast area surveys.~~

~~(b) Warning signal posters, which must be posted in suitable locations. Table T-1 shows the information that must be on the poster.~~

~~TABLE T-1~~

~~WARNING SIGNAL~~	~~A 1 minute series of long blasts 5 minutes prior to blast signal.~~
~~BLAST SIGNAL~~	~~A series of short blasts 1 minute prior to the shot.~~
~~ALL CLEAR SIGNAL~~	~~A prolonged blast following the inspection of the blast.~~

~~(c) Flags and barricades.~~

~~(d) Blasting mats or other suitable protective material.~~

~~(5) Exercise and apply independent professional judgment regarding blasting activities, when following instructions from others could result in an illegal act or affect the outcome of a blast.~~

~~(6) **Blast operation activities**. The blaster in charge must:~~

~~(a) Have authority over all blasters and be able to promptly correct all actions taken in any area of the blast operation;~~

~~(b) Manage the blast operation properly for any type of blasting being performed;~~

~~(c) Control blast activities associated with a blast;~~

~~(d) Supervise explosive material activities, which include:~~

~~(i) Keeping a running inventory of all explosives and blasting agents stored at the blast area;~~

~~(ii) Supervising all on-site transportation, storage, loading, and firing of explosives.~~

~~(e) Notify local jurisdictions when blasting may affect them;~~

~~(f) Designate safe locations for personnel during the blast;~~

~~(g) Designate a method to determine when all personnel are accounted for in designated safe locations;~~

~~(h) Make sure blast observers are able to communicate with the blaster in charge;~~

~~(i) Make sure all possible exits to the blast site are observed immediately prior to each blast;~~

~~(j) Distribute explosives in the shot;~~

~~(k) Be present when a charge is detonated;~~

~~(l) Personally detonate the charge or give an order to a designated blaster to detonate the charge.~~

~~(7) **Notification - Blast incidents**. The blaster in charge must notify the department within twenty-four hours when:~~

~~(a) A misfire is not cleared;~~

~~(b) Vibration and air blast limits cause injury or property damage;~~

~~(c) Flyrock causes injury or property damage.~~

~~(8) **Blast records**. The blaster in charge must:~~

~~(a) Keep an accurate inventory of all explosives and blasting agents stored at the blast operation;~~

~~(b) Keep a blast record with the following information:~~

~~(i) Name of the company or contractor;~~

~~(ii) Exact location of the blast;~~

~~(iii) Date and time of detonation;~~

~~(iv) Name, signature, and license number of the blaster in charge;~~

~~(v) Type of material blasted;~~

~~(vi) Type of explosives used;~~

~~(vii) Number of holes, burden, and spacing;~~

~~(viii) Diameter and depth of holes;~~

~~(ix) Total amount of each type of explosives used;~~

~~(x) Maximum amount of explosives per delay period within eight milliseconds;~~

~~(xi) Maximum number of hole per delay period within eight milliseconds;~~

~~(xii) Method of firing;~~

~~(xiii) Type of circuit;~~

~~(xiv) Direction, distance in feet, and identification of the nearest dwelling, house, public building, school, church, or commercial/institutional building not owned or leased by the blaster in charge conducting the blasting;~~

~~(xv) Weather conditions;~~

~~(xvi) Type and height (or length) of stemming;~~

~~(xvii) A statement indicating whether blast mats or other flyrock protection were used;~~

~~(xviii) Type of initiation system used;~~

~~(xix) Type of delay periods used.~~

~~(c) Have seismograph records and readings, if required or used, that must accurately identify the:~~

~~(i) Name of the person and business analyzing the record;~~

~~(ii) Exact location of the seismograph;~~

~~(iii) Distance of the seismograph from the blast.~~

~~(d) Have sketches of the blast pattern. The sketch must include the:~~

~~(i) Number of hole;~~

~~(ii) Burden;~~

~~(iii) Spacing distance delay pattern.~~

~~(e) Have sketches of the hole profile if decking was used;~~

~~(f) Have general comments which include:~~

~~(i) Unusual conditions/situations during the blast;~~

~~(ii) The calculated scale distance number;~~

~~(iii) Misfires.~~

~~(g) Complete and sign each blast record;~~

~~(h) Retain blast records for a minimum of three years;~~

~~(i) Make sure blast records are available for department inspection.~~

~~Note:~~ ~~A nonmandatory sample blast record can be found in Appendix B. You may use this format or create your own but all the information in this section must be included.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-67010, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67010, filed 1/23/02, effective 3/1/02.]

((~~GENERAL EXPLOSIVES RULES~~))

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67020 ((**~~Black powder.~~**)) **Reserved.** ((~~Black powder, including black powder manufactured for muzzle loading firearms, cannot be used for blasting.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67020, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67025 ((**~~Age of explosives.~~**)) **Reserved.** ((~~The oldest explosive of the kind needed for a blast, must be used first.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67025, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67030 ((**~~Blast site storage.~~**)) **Reserved.** ((~~Explosive materials at blast sites must be attended.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67030, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67035 ((**~~Day box storage.~~**)) **Reserved.** ((~~A day box used for temporary storage of explosive materials at a job site during working hours at a job site must be:~~

~~(1) Constructed in accordance with WAC 296-52-70065, Explosives day box and WAC 296-52-70070, Detonator day box.~~

~~(2) Fire, weather, and theft resistant.~~

~~(3) Marked with the word "EXPLOSIVES."~~

~~(4) Safely separates detonators from other explosives.~~

~~(5) Attended to at all times against theft.~~

~~(6) On ground which slopes away from the day box for proper drainage.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67035, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67040 ((**~~Attendants must be present.~~**)) **Reserved.** ((~~An authorized attendant must be:~~

~~(1) Physically present.~~

~~(2) Awake.~~

~~(3) Alert.~~

~~(4) Able to see the explosives at all times.~~

~~(5) Able to reach the explosives quickly, without interference.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67040, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-67045 ((~~**Handling explosives.**~~)) **Reserved.**

((~~Explosives must:~~

~~(1) Be handled by only competent and authorized personnel.~~

~~(2) Be delivered and issued only to a purchaser or a purchaser's authorized agent.~~

~~(3) Be delivered into authorized magazines, approved temporary storage, or handling areas.~~

~~(4) Be carried to the blast site from the main storage magazines by the blaster or blaster's helper in special insulated containers, day boxes, or original U.S. DOT shipping containers.~~

~~(5) Never be carried in pockets or clothing, including detonators.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-67045, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67045, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-67050 ((~~**Trainee supervision.**~~)) **Reserved.** ((~~Trainees and inexperienced personnel must work under the direct supervision of a fully qualified licensed blaster who knows the site's:~~

~~(1) Blasting method;~~

~~(2) Safety procedures;~~

~~(3) Blasting signals.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-67050, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67050, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67055 ((~~**Storms.**~~)) **Reserved.** ((~~(1) **Dust storms.** Blasting operations must be completely stopped and all personnel removed from the blast area if a heavy dust storm approaches or is present because it could cause static lightning.~~

~~(2) **Thunderstorms.** Blasting operations must stop and all personnel be removed from the blast area if a thunderstorm approaches or is present.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67055, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-67060 ((~~**Extraneous electricity and radio frequency (RF) transmitters.**~~)) **Reserved.** ((~~Precautions must be taken to prevent unintended electric detonator discharge from extraneous electricity and radio frequency (RF) transmitters. The following are sources of common hazards for extraneous electricity and RF transmissions:~~

~~(1) **Extraneous electricity.** Common hazardous sources of extraneous electricity include:~~

~~(a) Adjacent power lines;~~

~~(b) Dust storms;~~

~~(c) Lightning storms.~~

~~(2) **RF transmission sources.** Common hazardous sources of RF transmissions include:~~

~~(a) **Mobile transmitters:**~~

~~(i) Citizen band (CB);~~

~~(ii) Side band radio;~~

~~(iii) VHF (FM) radio;~~

~~(iv) UHF cellular telephones;~~

~~(v) Radar.~~

~~(b) **Fixed location transmitters:**~~

~~(i) Base stations for CB;~~

~~(ii) Side band or FM radio communications;~~

~~(iii) UHF cellular telephone transmitters and service extension repeater systems;~~

~~(iv) AM and FM (commercial) radio broadcast transmitters;~~

~~(v) TV broadcast transmitters and repeater system transmitters;~~

~~(vi) Surface scan and radio navigation beacons.~~

~~(c) **Low flying aircraft** (in particular military aircraft) create the most common serious RF exposures. These highly unpredictable mobile transmitters are very powerful and transmit on a broad spectrum of frequencies, which include, but are not limited to:~~

~~(i) Radar;~~

~~(ii) Laser;~~

~~(iii) All common communications bands.~~

Note: The two most dangerous examples are:

- Low flying automatic terrain following guidance systems

- Airplanes which are equipped to jam all common radar and communications frequencies for a distance of several miles around the airborne transmitters.

(3) **Transportation.** Transportation of explosives must meet these requirements:

(a) **Public highways.** The Washington utilities and transportation commission (UTC) and Washington state department of transportation (WSDOT) require compliance with ANSI D6.1-1988, Uniform Traffic Control Devices;

(b) **Private roads.** You do not have to comply with ANSI on private roads under department jurisdiction if required warning signs are properly placed when electric detonators are present.

(4) **Site survey.** The blaster in charge must conduct or assign a designated appointee to conduct an accurate survey of the entire blast area, to determine:

(a) The clearance points where roads or right of ways enter and exit the required clearance zone;

(b) If the one thousand-foot clearance zone needs adjusting to maintain the permissible clearance zone at all times, if the blast area moves as the job progresses.

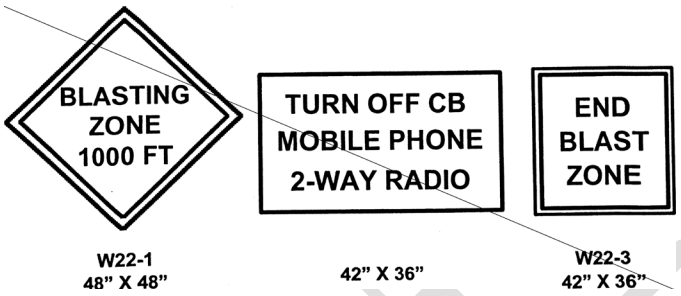
(5) **Clearance zones.**

Required clearance zones for:	Number of feet
Construction operations	1000 feet

Required clearance zones for:	Number of feet
Demolition operations	1000 feet
General industry operations, not subject to construction requirements	350 feet

(6) **RF-transmitter warning signs.**

RF-TRANSMITTER WARNING SIGNS



(a) RF-transmitter **warning-sign specifications.**

Signs must:

(i) Be a specific size. See the signs above for sign dimensions;

(ii) Have a "construction" orange background;

(iii) Have black letters and borders;

(iv) Use all upper case letters that are at least the size shown above.

Note: Larger signs may be required where the highway speed limit is more than fifty-five miles per hour.

(b) **Posting** warning signs must:

(i) Be adequately placed to warn:

(A) All transmitter users against the use of:

(I) Radio frequency transmitters;

~~(II) CBs;~~

~~(III) Mobile phones;~~

~~(IV) Two-way radios.~~

~~(B) All users of routes into the electric detonator clearance zone.~~

~~(ii) Be prominently displayed when an electric detonator initiation system is being used during blasting operations and when the electric detonators have been removed from the original U.S. DOT approved shipping container;~~

~~(iii) Be posted at the beginning of the blast zone minimum clearance point saying:~~

"TURN OFF CB, MOBILE PHONE, 2-WAY RADIO"

~~(c) **Blast zone signs.**~~

~~(i) The "BLAST ZONE 1,000 FEET" sign must be posted one thousand feet before the "TURN OFF CB, MOBILE PHONE, 2-WAY RADIO" sign;~~

~~(ii) The one thousand-foot separation distance limit may be reduced (not less than three hundred feet) in very slow vehicle travel zones (such as off-road construction right of ways, rock pits, or quarries).~~

~~(d) An "END BLAST ZONE" sign must be posted outside the blasting zone clearance limits.~~

~~(c) Signs must be covered or removed when blasting operations are not being conducted.~~

~~(7) **Voltage identification.** Electrical transmission and distribution line voltage must be accurately identified.~~

~~(8) **System clearance identification.** The required clearance for each system must be accurately identified.~~

~~(9) **RF transmitters.** Mobile RF transmitters must be deenergized or disconnected when they are less than one hundred feet from electric detonators that are not fully contained in their original U.S. DOT shipping containers.~~

~~**Note:** Fixed location RF transmitters represent a higher level of hazard to both storage and blasting operations involving electric detonators because the transmitters are more powerful and transmit dangerous levels of RF exposure over much greater distances.~~

~~(10) **Prevention of radio frequency hazards:**~~

~~(a) Electric detonators in storage or at blasting operations must meet the appropriate distance table requirements published in the IME Publication Number 20, 1988, "*Safety Guide for the Prevention of Radio Frequency Hazards in the Use of Commercial Electric Detonators (Blasting Caps)*."~~

~~(b) If it is necessary to conduct blasting operations inside the required separation distances specified in the IME Pamphlet Number 20, 1988:~~

~~(i) Storage and use of electric detonators is prohibited on the site;~~

~~(ii) Only detonating cord, safety fuse, shock tube, or other approved nonelectric systems can be used.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-67060, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67060, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 03-06-073, filed 3/4/03, effective 8/1/03)

WAC 296-52-67065 ((**~~Vibration and damage control.~~**)) **Reserved.**

((~~(1) Ground vibration - maximum limits.~~

~~Either Table 8-A or Table 8-B can be used to determine the maximum limits of ground vibration for~~ ~~any dwelling, public building, school church, commercial site, cofferdams, piers, underwater structures, or institutional building nearby the blasting site. The methods used for monitoring vibration and calculating frequency must be included in the blast plan.~~

Table 8-A

PEAK PARTICLE VELOCITY LIMITS

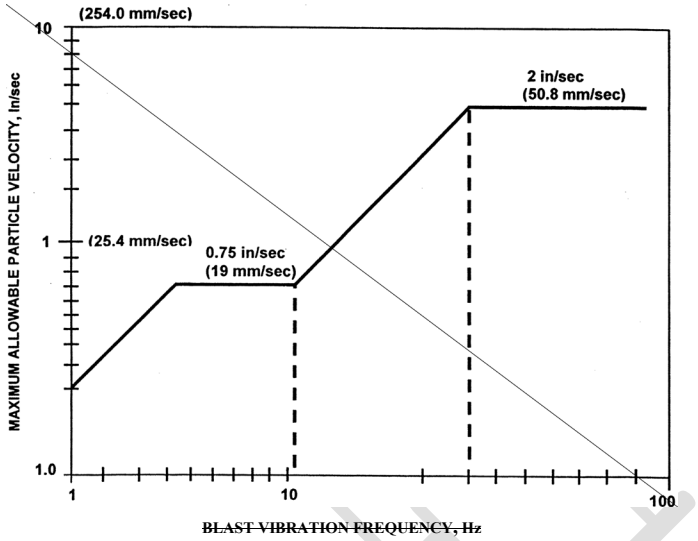
Distance from blasting site	**Maximum allowable peak particle velocity[1]**
0 to 300 ft (91.4 m)	1.25 in/sec (31.75 mm/sec)
301 to 5000 ft (91.5 m to 1524 m)	1.00 in/sec (25.4 mm/sec)
5001 ft (1525 m) and beyond	0.75 in/sec (19 mm/sec)

[1] Peak particle velocity must be measured in three mutually perpendicular directions and the maximum allowable limits must apply to each of these measurements.

(a) Frequency versus particle velocity graphics. In lieu of Table 8-A, a blasting operation has the option to use the graphs shown in Figure 8a or 8b to limit peak particle velocity based upon the frequency of the blast vibration. If either of the graphs in Figure 8a or 8b is used to limit vibration levels, the methods used for monitoring vibration and calculating frequency must be included in the blast plan.

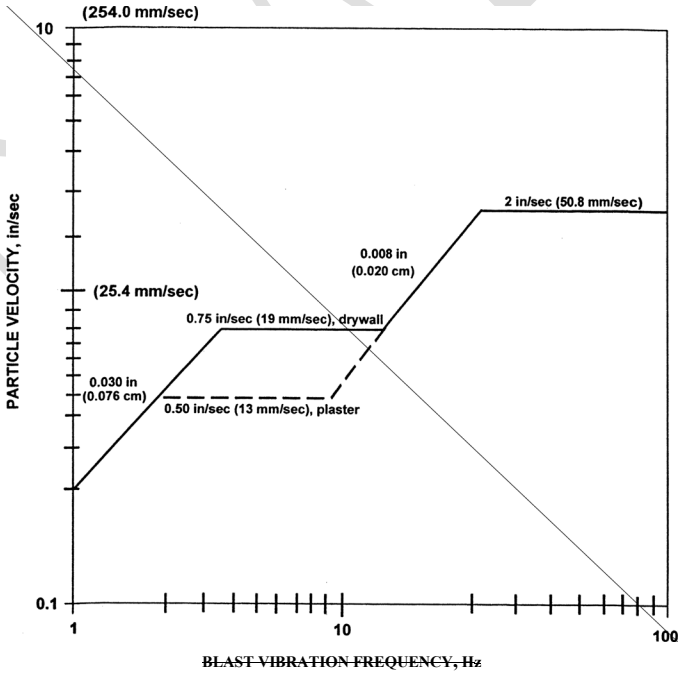
Figure 8a

Alternative Blasting Level Criteria



~~Figure 8b~~

~~Alternative Blasting Level Criteria~~



~~(b) Scaled distance equations. Unless a blasting operation uses a seismograph to monitor a blast to assure compliance with Table 8-A or Figures 9a or 8b, the operation must comply with the scaled distance equations shown in Table 8-B.~~

~~Table 8-B~~

~~SCALED-DISTANCE EQUATIONS~~

~~Distance from Blasting Site~~	**~~Scaled Distance Equation~~**
~~0 to 300 ft (91.4 m)~~	~~W (lbs) = (d (ft)/50)2 or W (kg) = (d (m)/22.6)2~~
~~301 to 5000 ft (92 m to 1524 m)~~	~~W (lbs) = (d (ft)/55)2 or W (kg) = (d (m)/24.9)2~~
~~5001 ft (1524 m) and beyond~~	~~W (lbs) = (d (ft)/65) or W (kg) = (d (m)/29.4)2~~

~~Key:~~

~~W~~ ~~= The maximum weight of explosives in pounds (or kilograms) that can be detonated per delay interval of 8 milliseconds or greater.~~

~~d~~ ~~= The distance in feet (or meters) from the blast to the nearest dwelling, public building, school, church, commercial, or institutional building not owned, leased, or contracted by the blasting operation, or on property where the owner has not given a written waiver to the blasting operation.~~

~~Note:~~ ~~To convert English Units of scaled distances (ft/lb^2) to metric units (m/kg^2) divide by a factor of 2.21.~~

~~(2) **Air blast - Maximum limits.** Air blast must not exceed the maximum limits listed in Table 8-C. Use Table 8-C to determine maximum air blast limits at any dwelling, public building, school, church, commercial, or institutional building not owned, leased, contracted, or on the property where the owner has not provided a written waiver to the blasting operation.~~

~~Table 8-C~~

~~AIR-BLAST LIMITS~~

~~Lower Frequency of Measuring System in Hz (+ or - 3 decibels)~~		~~Measurement Level in Decibels~~
~~0.1 Hz or Lower~~	~~Flat Response~~	~~134 Peak~~
~~2 Hz or Lower~~	~~Flat Response~~	~~133 Peak~~
~~6 Hz or Lower~~	~~Flat Response~~	~~129 Peak~~
~~C-Weighted~~	~~Slow Response~~	~~105 Peak dBC~~

~~(3) Flyrock outside the blast area:~~

~~(a) **Uncontrolled flyrock.** Flyrock traveling in the air or along the ground cannot be cast from the blast area in an uncontrolled manner, which could result in personal injury or property damage. Uncontrolled flyrock (airborne or along the ground), that could cause personal injury or property damage, is not allowed from the blast area.~~

~~(b) **Contract or written waiver.** Flyrock cannot be propelled from the blast area onto property where the blasting operation has not contracted or received a written waiver from the owner.~~

~~(c) **Use of protective material.** When blasting in congested areas or close to a structure, railway, highway, or any other installation that could be damaged, the blast must be covered, before firing, with a mat or other protective material that will prevent fragments from being thrown.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 03-06-073, § 296-52-67065, filed 3/4/03, effective 8/1/03. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67065, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-67070 ((~~**Storage at blast sites.**~~)) **Reserved.** ((~~(1) **Packaging materials.** Empty boxes, paper, and fiber packing materials that have previously contained explosive materials must be:~~

~~(a) Disposed of in a safe manner; or~~

~~(b) Reused in accordance with U.S. DOT hazardous materials regulations.~~

~~(2) **Opening fiberboard cases.** Nonsparking metallic slitters may be used for opening fiberboard cases.~~

~~(3) **Deteriorating explosives.** Deteriorating explosives must be carefully set aside and disposed of according to the manufacturer's specifications.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-67070, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67070, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67075 ((~~**Blast area precautions.**~~)) **Reserved.** ((~~(1) **Warning signs.** Blast area warning signs must:~~

~~(a) Be set up at all entrances to the blast area.~~

~~(b) Have lettering a minimum of four inches high and on a contrasting background.~~

~~(2) **Loaded stumps.** All loaded stumps must be marked for identification.~~

~~(3) **Lock out.** Cables close to the blast area must be deenergized and locked out by the blaster in charge.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67075, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-67080 ((~~**Drilling.**~~)) **Reserved.** ((~~(1) **Unexploded charges.**~~

~~(a) Drilling cannot begin:~~

~~(i) When there is danger of drilling into a charged or misfired hole.~~

~~(ii) Until all remaining butts of old holes are examined for unexploded charges.~~

~~(b) Unexploded charges must be refired before work proceeds.~~

~~(2) **Distance limits during drilling.** Blasters cannot load or use explosives closer than:~~

~~(a) The length of the steel being used for drilling; or~~

~~(b) Within fifty feet of drilling operations, whichever is greater.~~

~~(3) **Prior to loading drill holes.**~~

~~(a) Holes must be checked prior to loading to determine depth and conditions.~~

~~(b) Drill holes that have contained explosives or blasting agents cannot be deepened.~~

~~(c) Drill holes must be large enough to allow unobstructed or free insertion of explosive cartridges.~~

~~(4) **Enlarging or springing a drill hole.**~~

~~(a) A drill hole cannot be sprung when it is near a loaded hole.~~

~~(b) A minimum of two hours must pass after a charge has exploded in a drill hole that was enlarged or "sprung," before loading another charge of explosives into the hole.~~

~~**Note:** You do not have to wait two hours if the sprung hole is thoroughly wet down with water before it is loaded.~~

~~(c) Flashlight batteries cannot be used as a power source for springing holes.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-67080, filed 8/1/17, effective 9/1/17; WSR 05-08-110, § 296-52-67080, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67080, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-67085 ((~~**Loading blast holes.**~~)) **Reserved.** ((~~(1) **Power lines and portable electric cables.** Power lines and portable electric~~

~~cables must be kept at a safe distance from explosives or blasting agents being loaded into drill holes.~~

~~(2) **Equipment, machinery, and tools.**~~

~~(a) Any machine or tool not being used to load holes must be removed from the immediate loading area.~~

~~(b) Equipment cannot be operated within fifty feet of loaded holes except when:~~

~~(i) It is needed to add burden or mats;~~

~~(ii) Tracking drills out of the loading area.~~

~~(3) **Holes that may be loaded.** Only holes that will be fired in the next blasting round may be loaded.~~

~~(4) **Tamping.**~~

~~(a) A primer must never be tamped.~~

~~(b) Tamping must be done with wood rods or approved plastic tamping poles that do not have exposed metal parts.~~

~~(c) Nonsparking metal connectors may be used for jointed poles.~~

~~(d) Violent tamping must be avoided.~~

~~(5) **Pneumatic loading.** When loading blasting agents pneumatically over primed boosters:~~

~~(a) A semiconductive delivery hose must be used;~~

~~(b) Equipment must be bonded and grounded.~~

~~(6) **Stemming.** All blast holes in open work must be stemmed to:~~

~~(a) The collar; or~~

~~(b) A point, which will confine the charge.~~

~~(7) **Attendance of holes.** Loaded holes must be attended or protected.~~

~~(8) **Unused explosives.** After loading, all remaining explosives and detonators must be immediately returned to an authorized magazine or day box.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-67085, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67085, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-67090 ((~~**Initiation systems.**~~)) **Reserved.** ((~~(1) **General initiation rules.**~~

~~(a) **Training and supervision.**~~

~~(i) The blaster in charge must provide adequate on-the-job training and supervision in the safe use of initiation systems.~~

~~(ii) All members of the blasting crew must be instructed, by the blaster in charge, in the safe use of the initiation system to be used and its system components.~~

~~(b) **Manufacturer recommendations.** All initiation systems and system components must be used in accordance with manufacturer recommendations and instructions.~~

~~(c) **Vehicle use precautions.**~~

~~(i) Explosives bulk trucks or other vehicles operated on a blast site cannot tread on:~~

~~(A) Tubing;~~

~~(B) Connectors; or~~

~~(C) Any surface delay component.~~

~~(ii) If a vehicle must pass over loaded blast holes. Precautions must be made to consolidate tubing, connectors, or any surface delay component at the collar of the hole to prevent vehicle contact.~~

~~(d) **Connecting the firing line.** Firing lines cannot be connected to the blast initiating device until all personnel are:~~

~~(i) Accounted for;~~

~~(ii) Removed from the blast danger area; or~~

~~(iii) In a blast shelter or other location that provides equivalent protection.~~

~~(e) **Visual inspection.** The blaster in charge must visually inspect the initiation system to make sure it is assembled according to the manufacturer's recommendations, before firing the shot.~~

~~(f) **Explosives not used:**~~

~~(i) Unused detonators or short capped fuses cannot be placed in holes that may be used for blasting.~~

~~(ii) Unused detonators must be removed from the work area and disposed of or stored in a licensed magazine.~~

~~(iii) Loose cartridges of explosives, detonators, primers, and capped fuses that are not used by the end of the work shift must be returned to and locked in their magazines.~~

~~(2) **Nonelectric initiation systems.**~~

~~(a) **Shock tube lines.** When a nonelectric shock tube initiation system is used:~~

~~(i) Spools of shock tube lines cannot be spooled from trucks or equipment.~~

~~(ii) The shock tube line must:~~

~~(A) Be free of knots and tight kinks;~~

~~(B) Be free of cuts or abrasions that could expose the core to moisture;~~

~~(C) Not be stretched;~~

~~(D) Be neat and orderly.~~

~~(iii) Tie ins must be kept neat and clean.~~

~~(iv) Unused lead line must be sealed to prevent moisture and dirt from entering the tube.~~

~~(v) Care must be taken to avoid hitting the tube with a shovel when the shock tube is being covered.~~

~~(vi) The end of the detonator must be pointed toward the front of the shot to minimize the chance of shrapnel flying to the rear of the blast where the shock tube will be lit.~~

~~(b) **Surface connector blocks**. Nonelectrical tubes must:~~

~~(i) Be secured properly in surface connector blocks.~~

~~(ii) Never exceed the rated capacity of tubes in surface connector blocks.~~

~~(c) **Splicing line**. A knot must be tied in the tubes to take the strain off of the splice.~~

~~(d) **Detonator cord**. If a detonator cord is used for surface tie in:~~

~~(i) All lines must be kept taut.~~

~~(ii) Connections to nonelectrical units must be at ninety degree angles.~~

~~(c) **Equipment and personnel.**~~

~~(i) Equipment cannot roll over shock tubes.~~

~~(ii) All unnecessary equipment and personnel must be removed from the blast area during loading.~~

~~(3) **Electric initiating systems.**~~

~~(a) **Survey of extraneous currents.** A survey to evaluate extraneous currents must be conducted:~~

~~(i) By the blaster in charge before adopting any system of electrical firing.~~

~~(ii) To eliminate all currents before holes are loaded.~~

~~(b) **Detonator compatibility, style, function, and manufacture.** In any single blast using electric detonators, all detonators must be:~~

~~(i) Compatible with each other.~~

~~(ii) Of the same style or function.~~

~~(iii) From the same manufacturer.~~

~~(c) **Wire capacity and gauge.**~~

~~(i) Connecting wires and lead wires must:~~

~~(A) Be insulated single solid wires with sufficient current carrying capacity.~~

~~(B) Not be less than twenty gauge (American wire gauge) solid core insulated wire.~~

~~(ii) Firing line or lead wires must:~~

~~(A) Be made of solid single wires with sufficient current carrying capacity.~~

~~(B) Not be less than fourteen gauge (American wire gauge) solid core insulated wire.~~

~~**Note:** Bus wires, depends on the size of the blast, fourteen gauge (American wire gauge) copper is recommended.~~

~~(d) **Lead wires.**~~

~~(i) **Shunting.** You must shunt the ends of lead wires that will be connected to a firing device by twisting them together before they are connected to leg or connecting wires.~~

~~(ii) **Control.** The blaster in charge must keep control of shunted lead wires until loading is completed and the leg wires are attached.~~

~~(iii) **Attachment.** Lead wires must be attached by the blaster in charge when it is time to fire the shot.~~

~~(c) **Detonator leg wires.** Electric detonator leg wires must:~~

~~(i) Be kept shunted (short circuited) until they are connected into the circuit for firing.~~

~~(ii) Not be separated (except for testing) until all holes are loaded and the loader is ready to connect the leg wires to the connecting or lead wires.~~

~~(f) **Circuits.**~~

~~(i) Blasting circuits or power circuits must be used in electric blasting and according to the electric detonator manufacturer's recommendations.~~

~~(ii) Care must be taken to make sure an adequate quantity of delivered current is available according to the manufacturer's recommendations, when firing a circuit of electric detonators.~~

~~(iii) A power circuit used for firing electric detonators cannot be grounded.~~

~~(iv) The firing switch must be designed so the firing lines to the detonator circuit automatically short circuit when the switch is in the "off" position.~~

~~(v) The firing switch must be locked in the "open" or "off" position at all times, except when firing from a power circuit.~~

~~(g) **Firing line insulation**. The insulation on all firing lines must be adequate and in good condition when firing electrically.~~

~~(h) **Testing.**~~

~~(i) The firing line must be checked at the terminals with an approved testing device before being connected to the blasting machine or other power sources.~~

~~(ii) The circuit, including all detonators, must be tested with an approved testing device before being connected to the firing line.~~

~~(i) **Switch keys.** The blaster in charge is the only person who is allowed to have firing switch keys in their possession.~~

~~(j) **Blasting machines.** A nonelectric system must be used if these requirements cannot be satisfied:~~

~~(i) Blasting machines must be in good condition.~~

~~(ii) The efficiency of the blasting machine must be tested periodically to make sure it delivers power at its rated capacity.~~

~~(iii) **Responsible person.**~~

~~(A) The blaster in charge must be in charge of blasting machines.~~

~~(B) The blaster in charge must connect the lead wires to the blasting machine and must fire the shot.~~

~~(iv) **Connections.**~~

~~(A) When firing with blasting machines, connections must be made according to the manufacturer of the electric detonator's recommendations.~~

~~(B) All connections must be made from the drill hole back to the source of the firing current.~~

~~(C) Lead wires must remain shunted and not connected to the blasting machine or other source of current until the charge is ready to fire.~~

~~(D) The number of electric detonators connected to a blasting machine cannot exceed the blasting machine's rated capacity.~~

~~(v) **Series circuit.** In primary blasting, a series circuit cannot contain more detonators than the manufacturer's recommended limits for electric detonators.~~

~~(vi) **Circuit testing.** A blaster in charge must use blasting testers specifically designed to test circuits to charged holes.~~

~~(vii) **Blasting near power lines.** Whenever lead or blasting wires could be thrown over live overhead powerlines, communication lines, utility services, or other services or structures by the force of an explosion, care must be taken to make sure:~~

~~(A) The total length of wires are short enough so they will not hit the lines.~~

~~(B) The wires are securely anchored to the ground.~~

~~(C) The owners or operators of the utilities in the blast area are notified.~~

~~(viii) **Disconnecting lead wires.** After firing an electric blast from a blasting machine, lead wires must be immediately disconnected from the machine and short-circuited.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-67090, filed 8/1/17, effective 9/1/17; WSR 06-19-074, § 296-52-67090, filed 9/19/06, effective 12/1/06. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67090, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67095 ((**~~Use of safety fuse with detonators.~~**)) **Reserved.** ((~~(1) **Restricted or prohibited use.**~~

~~(a) Safety fuse and detonators, used for conventional blasting, must be in the following:~~

~~(i) When extraneous electricity or radio frequency transmissions make the use of electric detonators and wire systems dangerous.~~

~~(ii) When overhead electric transmission lines cannot be deenergized and there is danger that blasting wires may be thrown onto the overhead lines during a blast.~~

~~(iii) For avalanche control hand charges.~~

~~(iv) For specialized applications when detonators and fuses are more suitable than electric or other nonelectric initiation systems.~~

~~(b) **Mudcap charges.** A detonator and fuse cannot be used for firing mudcap charges, unless the charges are separated to prevent one charge from dislodging other charges in the blast.~~

~~(c) **Drop fuse method.** Dropping or pushing a primer or any explosive with a lighted fuse attached is prohibited.~~

~~(d) **Damaged fuses.**~~

~~(i) Deteriorated or damaged fuses cannot be used.~~

~~(ii) It is prohibited to hang fuses on nails or other objects, which causes sharp bends in the fuse.~~

~~(2) **Fuse length.** Fuses:~~

~~(a) Must be cut long enough to reach beyond the collar of the drill hole.~~

~~(b) Must be three feet or longer.~~

~~(3) **Fuse burning rate.**~~

~~(a) Safety fuse burning rates must be:~~

~~(i) Measured.~~

~~(ii) Posted in conspicuous locations.~~

~~(iii) Brought to the attention of all workers.~~

~~(b) A fuse must burn between forty and fifty-five seconds per foot or it cannot be used.~~

~~(4) **Blaster safety.** When blasting with safety fuses, the length and burning rate of the fuse must allow sufficient time for the blaster to reach a place of safety.~~

~~(5) **Fuse capping.**~~

~~(a) **Capping location.** Fuses:~~

~~(i) Must not be capped in any magazine or near any possible source of ignition.~~

~~(ii) Must be capped in a place designated for this purpose.~~

~~(iii) Must be capped at least one hundred feet from any storage magazine.~~

~~(b) **Fuse ends.** Before capping a safety fuse, a short length must be cut from the end of the supply reel to guarantee a freshly cut end in each detonator.~~

~~(6) **Crimpers.**~~

~~(a) **Design.** The design of detonator crimpers used for attaching detonators to safety fuses must be approved.~~

~~(b) **Condition.** Crimpers must be in good repair.~~

~~(c) **Accessibility.** Crimpers must be accessible for use.~~

~~(7) **Waterproofing.** The joint between the detonator and fuse must be waterproofed with a compound for use in wet locations.~~

~~(8) **Primers.**~~

~~(a) **Site selection.** Primers must:~~

~~(i) Not be made in magazines or near possible sources of ignition.~~

~~(ii) Be made in a place designated for this purpose.~~

~~(iii) Be made a minimum of one hundred feet from any storage magazine.~~

~~(b) **Making primers.** When making primers:~~

~~(i) Make only enough for one day's use.~~

~~(ii) Only nonsparking skewers must be used for punching the hole in the cartridge to insert the capped fuse.~~

~~(iii) A detonator cannot be inserted in explosives without first making a hole in the cartridge of proper size or using a standard detonator crimper.~~

~~(c) **Storage.** Primers must:~~

~~(i) Be stored in a box type magazine.~~

~~(ii) Not be stored in magazines where other explosives are stored.~~

~~(9) **Hand lighting.**~~

~~(a) No one may light more than twelve fuses at a time when hand lighting devices are used.~~

~~(b) Two fuses may be considered one fuse when two or more grouped safety fuses are lit as a single fuse by:~~

~~(i) An igniter cord~~

~~**or**~~

~~(ii) Other similar fuse lighting devices.~~

~~(c) When multiple detonators and blasting is done by hand lighting methods, at least two people must be present.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67095, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-67100 ((**~~Use of detonating cord.~~**)) **Reserved.** ((~~(1)~~ **~~Cord selection.~~** ~~Care must be taken to select a detonating cord consistent with the:~~

~~(a) Type and physical condition of the drill hole;~~

~~(b) Stemming;~~

~~(c) Type of explosives used.~~

~~(2) **Handling.** A detonating cord must be handled and used with:~~

~~(a) The same respect and care given to other explosives;~~

~~(b) Care to avoid damaging or severing the cord during and after loading and hooking up.~~

~~(3) **Calculating quantity and distance.**~~

~~(a) For quantity and distance purposes, a detonating fuse (up to sixty grains per foot) should be calculated as equivalent to nine pounds of high explosives per one thousand feet;~~

~~(b) Heavier cord loads should be rated proportionally.~~

~~(4) **Trunk lines.**~~

~~(a) Detonators for firing the trunk line cannot be brought to the loading area or attached to the detonating cord until everything else is ready for the blast;~~

~~(b) All detonating cord trunk lines and branch lines must be free of loops, sharp kinks, or angles that direct the cord back toward the oncoming line of detonation;~~

~~(c) Trunk lines in multiple row blasts must make one or more complete loops, with cross ties between loops at intervals less than two hundred feet.~~

~~(5) **Connections.**~~

~~(a) **Detonating cord.** All detonating cords must be:~~

~~(i) Competent and positive in accordance with the manufacturer's recommended specifications.~~

~~(ii) Kept at right angles to the trunk lines.~~

~~(iii) Inspected before firing the blast.~~

~~(b) **Knots.**~~

~~(i) Knot or other cord-to-cord connections must be made with a detonating cord where the explosive core is dry.~~

~~(ii) All detonator cord knots must be tight.~~

~~(c) **Connecting detonators.**~~

~~(i) A detonator or electric detonator must be taped or securely attached along the side or end of the detonating cord. The detonator end containing the explosive charge must be pointed in the direction of the detonation.~~

~~(ii) Manufacturer's recommendations must be followed when short interval delay electric detonators are used with a detonating cord.~~

~~(iii) Manufacturer's recommendations must be followed when detonating cord millisecond delay connectors are used with a detonating cord.~~

~~(iv) The line of detonating cord extending from a drill hole or a charge must be cut from the supply spool before loading the remainder of the drill hole or placing additional charges.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-67100, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67100, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67105 ((~~**Firing the blast.**~~)) **Reserved.** ((~~(1) A code of blasting signals, equivalent to Table T-1, must be posted in one or more conspicuous places at the blast area and all employees must familiarize themselves with the code of blasting signals and use it. Warning signs must be placed at suitable locations, see WAC 296-52-67075(1), Warning signs.~~

~~(2) All charges must be covered with blasting mats or other protective material before firing, where blasting may cause injury or damage by flying rock or debris.~~

~~(3) Before a blast is fired, the blaster in charge must give a loud warning signal after they have verified all surplus explosives are in a safe place and all employees, vehicles, and equipment are at a safe distance or under sufficient cover.~~

~~(4) Flaggers must be safely stationed on highways that pass through the danger zone, to stop traffic during blasting operations on highways that pass.~~

~~(5) The blaster in charge must set the time of the blast and conduct all blasting operations so no shots will be fired without their approval.~~

~~TABLE T-1~~

~~WARNING SIGNAL~~	~~A 1 minute series of long blasts 5 minutes prior to blast signal.~~
~~BLAST SIGNAL~~	~~A series of short blasts 1 minute prior to the shot.~~
~~ALL CLEAR SIGNAL~~	~~A prolonged blast following the inspection of the blast.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67105, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-67110 ((~~**Precautions after firing.**~~)) **Reserved.** ((~~(1) **Immediately after firing.** Immediately after firing, the blaster in charge must:~~

~~(a) Disconnect the firing line from the blasting machine.~~

~~(b) Lock the power switches in the "open" or "off" position.~~

~~(c) Carefully trace all wires and search for unexploded charges.~~

~~(2) **Post blast inspection.** The blaster in charge must perform an inspection of the area and surrounding rubble to determine if all charges have been exploded before employees are allowed to return to the operation.~~

~~(3) **Misfires.**~~

~~(a) **Misfire found.** Misfires must be:~~

~~(i) Immediately reported to their supervisor.~~

~~(ii) Recorded on the blast record.~~

~~(iii) Reported to the department within twenty-four hours if not cleared.~~

~~(b) **Responsible person.** A blaster in charge must be present and direct the handling of all misfires.~~

~~(c) **Termination of work.**~~

~~(i) All work must stop, except activities needed to remove the misfire hazard.~~

~~(ii) Drilling, digging, or picking is not permitted until:~~

~~(A) All misfired holes have been detonated; or~~

~~(B) The blaster in charge determines work can proceed.~~

~~(d) **Evacuation precautions.** The following evacuation precautions must be taken in the event of a misfire:~~

~~(i) If a misfire is found, the blaster in charge must make sure safeguards are in place to keep all employees or other personnel from the danger zone, except those needed to remove the misfire hazard.~~

~~(ii) Workers cannot return to misfired holes for at least:~~

~~(A) Thirty minutes when electric blasting caps are used;~~

~~(B) One hour when detonators and fuses are used.~~

~~(e) **Charged or misfired holes.**~~

~~(i) Attempts cannot be made to remove explosives from any charged or misfired hole.~~

~~(ii) A new primer must be connected and the hole refired.~~

~~(f) **Refiring hazard.** If refiring a misfired hole presents a hazard, explosives may be:~~

~~(i) Removed by washing out the explosives with water; or~~

~~(ii) Removed with air, if the misfire is under water.~~

~~(4) **Burning holes.**~~

~~(a) Everyone in the endangered area must move to a safe location when explosives are suspected of burning in a hole.~~

~~(b) No one, under any circumstances, may return to the hole:~~

~~(i) Until the danger has passed; or~~

~~(ii) For at least one hour after the hole has been found.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-67110, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67110, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-67115 ((~~**Excavation work in pressurized air locks.**~~)) **Reserved.** ((~~(1)~~ ~~**Receiving, handling, storing, and transportation.**~~

~~(a) The blaster in charge or powder person is responsible for the receipt, unloading, storage, and on-site transportation of explosives and detonators.~~

~~(b) Explosives in transit cannot be left unattended.~~

~~(c) Detonators and explosives for each round must be taken directly from the magazines to the blasting zone and immediately loaded.~~

~~(2) **Wet holes.** Explosives appropriate for use in wet holes must be:~~

~~(a) Water resistant; and~~

~~(b) Fume Class 1 or other approved explosives.~~

~~(3) **Bonding.** All metal pipes, rails, air locks, and steel tunnel linings must be:~~

~~(a) Electrically bonded together and grounded at or near the portal or shaft.~~

~~(b) Cross bonded together at not less than one thousand-foot intervals throughout the length of the tunnel.~~

~~(4) **Air locks.**~~

~~(a) No one is allowed to enter the air lock when detonators or explosives are brought in, except:~~

~~(i) The blaster in charge.~~

~~(ii) The powder person.~~

~~(iii) The lock tender.~~

~~(iv) Employees needed to carry explosive materials.~~

~~(b) Primers, detonators, and explosives must be taken separately into pressure working locks.~~

~~(c) Material, supplies, or equipment cannot be brought into air locks with explosive materials.~~

~~(d) Detonators and explosives not used after loading a round must be removed from the working chamber before connecting the connecting wires.~~

~~(5) **Grounding.** Each air supply pipe must be grounded at its delivery end.~~

~~(6) **Mixed face.**~~

~~(a) Light charges and light burdens must be used for each hole when tunnel excavation in rock face is approaching or is in mixed face.~~

~~(b) Advance drilling must be done when tunnel excavation in rock face approaches mixed face to determine the:~~

~~(i) General nature and extent of rock cover; and~~

~~(ii) Distance to soft ground as excavation advances.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-67115, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and

[49.17].050. WSR 02-03-125, § 296-52-67115, filed 1/23/02, effective 3/1/02.]

((~~BLASTING AGENTS~~))

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67125 ((~~**Transportation, storage, and use.**~~)) **Reserved.**

((~~Unless otherwise specified in this part, blasting agents must be transported, stored, and used in the same manner as explosives.~~

~~**Note:** Water gels are covered in WAC 296-52-67150, Water gel and emulsion explosives and blasting agents, through WAC 296-52-67170, Bulk delivery/mixing vehicles.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67125, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-67130 ((~~**Fixed location mixing.**~~)) **Reserved.** ((~~(1) **Building location.** Buildings or other facilities used for manufacturing blasting agents must meet the separation distance~~

~~requirements of Table H-21 for inhabited buildings, passenger railroads, and public highways.~~

~~(2) **Building construction.** Buildings used for mixing blasting agents must be constructed of noncombustible material or sheet metal on wood studs and be well ventilated.~~

~~(3) **Determining distance.** When determining the distances separating highways, railroads, and inhabited buildings from potential explosions (Table H-20), the sum of all masses that may propagate (i.e., lie at distances less than specified in Table H-22) from either individual or combined donor masses are included in the sum. However, when the ammonium nitrate is included, only fifty percent of its weight must be used because of its reduced blast effects.~~

~~(4) **Heat sources.**~~

~~(a) **Internal heating units.** Properly designed and located heating units that do not depend on combustion processes may be used in the building.~~

~~(b) **External heating units.** All direct sources of heat must be located outside the mixing building.~~

~~(5) **Mixing plant floors** must be made of nonabsorbent materials such as concrete.~~

~~(6) **Electrical equipment.**~~

~~(a) Electrical switches, controls, motors, and lights located in the mixing room must:~~

~~(i) Comply with the requirements of WAC 296-800-280.~~

~~(ii) Be located outside the mixing room.~~

~~(b) The frame of the mixer and all other equipment must be:~~

~~(i) Electrically bonded.~~

~~(ii) Provided with a continuous path to ground.~~

~~(7) **Internal combustion engines.**~~

~~(a) **Location.** All internal combustion engines used for electric power generation must be:~~

~~(i) Located outside the mixing plant building; or~~

~~(ii) Properly ventilated and isolated by a firewall.~~

~~(b) **Exhaust systems**. Engine exhaust systems must be positioned so spark emission does not become a hazard to any material in or adjacent to the plant.~~

~~(8) **Mixing equipment.** Equipment used for mixing blasting agents must comply with the following:~~

~~(a) **Design.** The design of the mixer must:~~

~~(i) Minimize the possibility of frictional heating, compaction, and confinement;~~

~~(ii) Have the bearings and drive assemblies mounted outside the mixer and protected against the accumulation of dust;~~

~~(iii) Have the surfaces accessible for cleaning.~~

~~(b) **Construction.** Mixing and packaging equipment must be constructed of materials compatible with the fuel ammonium nitrate composition.~~

~~(c) **Fire precautions.** The following fire precautions must be followed:~~

~~(i) **Mixer fuel oil flow.** In case of fire:~~

~~(A) Appropriate means to prevent the flow of fuel oil to the mixer must be provided.~~

~~(B) An automatic spring-loaded shutoff valve with fusible link must be installed in gravity flow systems.~~

~~(ii) **Flame/spark producing devices.** Smoking, matches, open flames, spark-producing devices, and firearms (except firearms carried by law enforcement bomb squad members or qualified guards), are not allowed inside or within fifty feet of any facility used for mixing blasting agents.~~

~~(9) **Blasting agent compositions.** The following are requirements for determining blasting agent compositions:~~

~~(a) **Determining sensitivity.** The sensitivity of the blasting agent must be determined by means of a Number 8 test detonator at regular intervals and after every change in formulation.~~

~~(b) **Handling precautions.** Precautions must be taken when handling:~~

~~(i) Small particle oxidizers, such as crushed ammonium nitrate prills or fines, may be more sensitive than coarser products and must be handled with greater care;~~

~~(ii) Solid fuels must be used in a manner to minimize dust explosion hazards;~~

~~(iii) Metal powders, such as aluminum, must be:~~

~~(A) Kept dry; or~~

~~(B) Stored in moisture resistant or weather tight containers or bins.~~

~~(c) **Use restrictions**. The following cannot be used:~~

~~(i) Crude and crankcase oil;~~

~~(ii) Hydrocarbon liquid fuel with a flash point lower than the 125°F minimum for Number 2 diesel fuel oil; or~~

~~(iii) Peroxides and chlorates.~~

~~(10) **Fuel oil storage.**~~

~~(a) **Facilities.** Fuel oil storage facilities must be:~~

~~(i) Independent structures; or~~

~~(ii) Located at a site away from the manufacturing building.~~

~~(b) **Surrounding area**. In order to prevent oil from draining toward a manufacturing building in the event of a tank rupture, the surrounding grounds must slope away from the building.~~

~~(11) **Safety precautions.** Safety precautions at mixing plants must include these requirements:~~

~~(a) **Floor construction.** Floors must be constructed to eliminate floor drains and piping where molten materials could flow and be confined, in case of fire.~~

~~(b) **Mixing/packaging room**. The floors and equipment of the mixing and packaging room must be cleaned regularly and thoroughly to prevent accumulation of oxidizers, fuels, and other sanitizers.~~

~~(c) **Housekeeping**. The following housekeeping requirements must be followed:~~

~~(i) **Mixing plant**. The mixing and packaging plant must:~~

~~(A) Be cleaned regularly and thoroughly to prevent excessive accumulation of dust.~~

~~(B) Safely dispose of empty ammonium nitrate bags daily.~~

~~(ii) **Surrounding area.** The land surrounding the mixing plant must be kept clear of brush, dried grass, leaves, and other materials for a minimum of twenty-five feet.~~

~~(d) **Welding.**~~

~~(i) Welding or open flames are not permitted in or around the mixing or storage area of the plant unless:~~

~~(A) The equipment or area has been completely washed; and~~

~~(B) All oxidizer material has been removed.~~

~~(ii) Before welding or repairing hollow shafts:~~

~~(A) Oxidizer materials must be removed from the inside and outside of the shaft; and~~

~~(B) The shaft must be vented with a minimum 1/2-inch diameter opening.~~

~~(e) **Explosives.** Explosives are not permitted inside or within fifty feet of any facility used for mixing blasting agents.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-67130, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67130, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-67135 ((~~**Bulk delivery/mixing vehicles.**~~)) **Reserved.**

((~~Note:~~ ~~This section applies to both off highway operations and public highway transportation.~~

~~(1) **Vehicles.** These vehicle requirements must be followed:~~

~~(a) **Strength.** A bulk delivery vehicle must be strong enough to carry a load without difficulty.~~

~~(b) **Mechanical condition.** A bulk delivery vehicle must be in good mechanical condition.~~

~~(c) **Body.** A bulk vehicle body for delivering and mixing blasting agents must:~~

~~(i) Be constructed of noncombustible materials.~~

~~(ii) Have closed bodies if they are used to transport bulk premixed blasting agents.~~

~~(d) **Mixing system parts.**~~

~~(i) All moving parts of the mixing system must be designed to prevent heat buildup.~~

~~(ii) Shafts or axles which contact the product must have outboard bearings with a minimum of one-inch clearance between the bearings and~~

~~the outside of the product container. Special attention must be given to the clearances on all moving parts.~~

~~(c) **Welding.**~~

~~(i) Welding or open flames are not permitted in or around the mixing or storage area of the plant unless the equipment or area has been completely washed and all oxidizer material removed.~~

~~(ii) Before welding or repairing hollow shafts:~~

~~(A) All oxidizer material must be removed from the inside and outside of the shaft; and~~

~~(B) The shaft must be vented with a minimum 1/2-inch diameter opening.~~

~~(2) **Vehicle operation**. Operation of bulk delivery and mixing vehicles must comply with WAC 296-52-680, Transportation of explosive material, U.S. DOT placard requirements, and these requirements:~~

~~(a) **Driver training**. The vehicle driver must be:~~

~~(i) Trained in the safe operation of the vehicle, mixing, conveying, and related equipment.~~

~~(ii) Familiar with the load being delivered and general procedures for handling emergencies.~~

~~(b) **Cargo and containers**. Cargo and containers must:~~

~~(i) Haul either detonators or other explosives, but not both, it is permitted on bulk trucks provided a special wood or nonferrous-lined container is installed for explosives.~~

~~(ii) Be U.S. DOT specified shipping containers, according to 49 C.F.R. Chapter 1.~~

~~(c) **Moving a vehicle in the blast area.** When moving a vehicle in the blast area:~~

~~(i) The driver must exercise caution to avoid driving the vehicle onto or dragging hoses over firing lines, cap wires, or explosive materials; and~~

~~(ii) A second person must help guide the vehicle driver's movements.~~

~~(3) **Pneumatic loading.** Pneumatic loading from bulk delivery vehicles into blast holes primed with electric detonators or other static sensitive systems must comply with these requirements:~~

~~(a) A positive grounding device must be used to prevent accumulation of static electricity.~~

~~(b) A discharge hose must:~~

~~(i) Have a resistance range that will prevent conducting stray currents; or~~

~~(ii) Be conductive, to bleed off static buildup.~~

~~(c) A qualified person must evaluate all static sensitive systems to determine if they will adequately dissipate static under potential field conditions.~~

~~(4) **Repairs.** Bulk delivery vehicle repair must comply with the requirements of this section.~~

~~(5) **Prohibited activities.** The following are prohibited:~~

~~(a) In-transit mixing of materials.~~

~~(b) While in or about bulk vehicles in the process of the mixing, transferring or down-the-hole loading of water-gels at or near the blasting site:~~

~~(i) Smoking; and~~

~~(ii) Carrying flame producing devices including matches and firearms near bulk vehicles in the process of mixing, transferring, or down-the-hole loading of water-gels, at or near the blast site.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-67135, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67135, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-67140 ((**~~Bulk storage bins.~~**)) **Reserved.** ((~~(1) **Construction.** A bin, including supports, must be:~~

~~(a) Waterproof.~~

~~(b) Constructed of compatible materials.~~

~~(c) Adequately supported and braced to withstand the combined force of all loads, including impact from product movement within the bin and accidental vehicle contact with the support legs.~~

~~(2) **Discharge gates.** A bin discharge gate must be designed to lock and close tightly to prevent leakage of the stored product and to lock.~~

~~(3) **Loading manways.** Bin loading manways or access hatches must be hinged or attached to the bin and designed to lock.~~

~~(4) **Electric conveyors.** An electrically driven conveyor used for loading or unloading bins must:~~

~~(a) Comply with the requirements of WAC 296-800-280, Basic electrical rules.~~

~~(b) Be designed to minimize corrosion damage.~~

~~(5) **Separation distances.** The following separation distances must be followed:~~

~~(a) **Blasting agent bins.** Bins containing blasting agents must meet the distance requirements of:~~

~~(i) Table H-20, in reference to separation from inhabited buildings, passenger railroads, and public highways; or~~

~~(ii) Table H-22, in reference to separation from other explosives and blasting agent storage facilities.~~

~~(b) **Ammonium nitrate bins.** Bins containing ammonium nitrate must meet the distance requirements of Table H-22 in reference to separation of blasting agent and explosives storage.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-67140, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67140, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67145 ((~~**Transportation of blasting agents.**~~)) **Reserved.** ((~~(1) **Public highways.** The following must comply with the United States Department of Transportation's (U.S. DOT) requirements:~~

~~(a) Packaging, marking, and labeling containers of blasting agents that are being transported on public highways.~~

~~(b) Vehicles must follow placard regulations for transporting blasting agents on public highways.~~

~~(2) **Transporting blasting agents and explosives together.** Transportation of blasting agents with explosives in the same vehicle must meet the requirements of WAC 296-52-68060, Operation of vehicles transporting explosives.~~

~~(3) **Vehicles.** Vehicles transporting blasting agents must be in safe operating condition at all times.~~

~~(4) **Prohibited activities.** The following activities are prohibited:~~

~~(a) Carrying matches, firearms, acids, or other corrosive liquids, in the bed or body of any vehicle containing blasting agents.~~

~~(b) Allowing anyone who is smoking or under the influence of intoxicants, narcotics, or other dangerous drugs to ride, drive, load, or unload a vehicle, containing blasting agents.~~

~~(c) Transporting or carrying blasting agents on any public vehicle that has paying customers.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67145, filed 1/23/02, effective 3/1/02.]

((~~WATER-GEL AND EMULSION EXPLOSIVES AND BLASTING AGENTS~~

~~GENERAL~~

~~**Note:** Water-gels and emulsions must be transported, stored, and used in the same way as explosives or blasting agents according to product classification unless stated otherwise in WAC 296-52-67150, Water-gel and emulsion explosives and blasting agents, through WAC 296-52-67170, Bulk delivery/mixing vehicles.~~))

AMENDATORY SECTION (Amending WSR 03-06-073, filed 3/4/03, effective 8/1/03)

WAC 296-52-67160 ((~~**Types and classifications.**~~)) **Reserved.** ((~~(1) **Contains explosive substance.** Water-gel and emulsion explosive materials that contain a substance classified as an explosive must be classified as an explosive.~~

~~(2) **Contains no explosive substance.** Water-gel and emulsion explosive materials that do not contain any substance classified as an explosive or as cap-sensitive (as defined under "blasting agent" in WAC 296-52-60130, Definitions) must be classified as an explosive.~~

~~**Note:** Water-gel formulas, which are tested and classified as a U.S. DOT Division 1.2 or 1.3 explosives do not require bullet resistant magazines.~~

~~(3) **Contains blasting agent substance.** Water-gel and emulsion explosive materials that do not contain any substance classified as an explosive and are not cap-sensitive (as defined under "blasting agent" in WAC 296-52-60130, Definitions) must be classified as blasting agents.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 03-06-073, § 296-52-67160, filed 3/4/03, effective 8/1/03. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67160, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-67165 ((~~**Fixed location mixing.**~~)) **Reserved.** ((~~(1) **Buildings.**~~

~~(a) **Locations.**~~

~~(i) **Separation distance tables.** Buildings or other facilities used for manufacturing emulsions and water-gels must meet the separation distance requirements of Table H-21 for:~~

~~(A) Inhabited buildings;~~

~~(B) Passenger railroads;~~

~~(C) Public highways.~~

~~(ii) **Determining distance**. When determining the distances separating highways, railroads, and inhabited buildings from potential explosions (Table H-20), the sum of all masses that may propagate (i.e., lie at distances less than specified in Table H-22) from either individual or combined donor masses are included in the sum. However, when ammonium nitrate must be included, only fifty percent of its weight must be used because of its reduced blast effects.~~

~~(b) **Construction**. Buildings used for the manufacture of water-gels or emulsions must:~~

~~(i) Be constructed of noncombustible material or sheet metal on wood studs.~~

~~(ii) Have mixing plant floors made of nonabsorbent materials, such as concrete.~~

~~(iii) Be well ventilated.~~

~~(c) **Heat sources**. Heating units that are designed to be independent of the combustion process within the heating unit, may be used within processing buildings or compartments if they:~~

~~(i) Have temperature and safety controls; and~~

~~(ii) Are located away from combustible materials and the finished product.~~

~~(d) **Internal combustion engines.**~~

~~(i) **Location.** All internal combustion engines used for electric power generation must be:~~

~~(A) Located outside the mixing plant building; or~~

~~(B) Properly ventilated and isolated by a firewall.~~

~~(ii) **Exhaust systems.** Engine exhaust systems must be located to prevent spark emissions from becoming a hazard to any materials, in or near the plant.~~

~~(e) **Fuel oil storage.**~~

~~(i) **Facilities.** Fuel oil storage facilities must be:~~

~~(A) Independent structures;~~

~~(B) Located away from the manufacturing building.~~

~~(ii) **Surrounding area.** In order to prevent oil from draining toward a manufacturing building in the event of a tank rupture, the surrounding grounds must slope away from the building.~~

~~(2) **Storage of water-gel and emulsion ingredients.**~~

~~(a) **Explosive ingredients.** Ingredients must be stored with compatible materials.~~

~~(b) **Nitrate water solutions.**~~

~~(i) Nitrate water solutions can be stored in tank cars, tank trucks, or fixed tanks without quantity or distance limitations.~~

~~(ii) Spills or leaks which may contaminate combustible materials must be cleaned up immediately.~~

~~(c) **Metal powders.** Metal powders, for example, aluminum, must be:~~

~~(i) Kept dry; and~~

~~(ii) Stored in containers or bins that are moisture resistant or weather tight.~~

~~(d) **Solid fuels.** Solid fuels must be used in a way that minimizes dust explosion hazards.~~

~~(e) **Peroxides and chlorates.** Peroxides and chlorates cannot be used.~~

~~(3) **Mixing equipment.** Mixing equipment must comply with these requirements:~~

~~(a) **Design.** The design of processing equipment, including mixers, pumps, valves, conveying, and other related equipment, must:~~

~~(i) Be compatible with the relative sensitivity of other materials being handled.~~

~~(ii) Minimize the possibility of frictional heating, compaction, overloading, and confinement.~~

~~(iii) Prevent the introduction of foreign objects or materials.~~

~~(iv) Be designed to permit regular and periodic flushing, cleaning, dismantling, and inspection.~~

~~(b) **Handling procedures**. Equipment handling procedures must be designed to prevent the introduction of foreign objects or materials.~~

~~(c) **Housekeeping**.~~

~~(i) A cleaning and collection system for dangerous residues must be provided.~~

~~(ii) The mixing, loading, and ingredient transfer areas, where residues or spilled materials may accumulate, must be cleaned periodically.~~

~~(d) **Electrical equipment**. Electrical equipment must:~~

~~(i) Comply with the requirements of WAC 296-800-280, Basic electrical rules, including wiring, switches, controls, motors, and lights.~~

~~(ii) Have appropriate overload protection devices for all electric motors and generators.~~

~~(iii) Be electrically bonded with electrical generators, motors, proportioning devices, and all other electrical enclosures.~~

~~(iv) Have grounding conductors effectively bonded to:~~

~~(A) The service entrance ground connection; or~~

~~(B) All equipment ground connections in a manner to provide a continuous path to ground.~~

~~(4) **Mixing facility fire prevention.** Mixing facilities must comply with these fire prevention requirements:~~

~~(a) All direct sources of heat must only come from units located outside of the mixing building.~~

~~(b) A daily visual inspection must be made of the mixing, conveying, and electrical equipment to make sure they are in good operating condition.~~

~~(c) A systematic maintenance program must be conducted on a regular schedule.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-67165, filed 8/1/17, effective 9/1/17; WSR 05-08-110, § 296-52-67165, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67165, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-67170 ((~~**Bulk delivery/mixing vehicles.**~~)) **Reserved.**

((~~(1) **Vehicle design.** The design of bulk delivery/mixing vehicles must comply with these requirements:~~

~~(a) **Public highways.** Vehicles used for the bulk transportation of emulsion, water-gels, or ingredients classified as dangerous commodities on public highways, must meet:~~

~~(i) U.S. DOT regulations, including placard requirements; and~~

~~(ii) WAC 296-52-680, Transportation of explosive materials.~~

~~(b) **Power supply.** When electric power is supplied by a self-contained motor generator located on the vehicle, the generator must be separate from where the water-gel is discharged.~~

~~(c) **Parking brakes and chocks.** The following are requirements for parking breaks and chocks:~~

~~(i) A positive action parking brake, which will engage the wheel brakes on at least one axle, must be:~~

~~(A) Provided on vehicles equipped with air brakes;~~

~~(B) Used during bulk delivery operations.~~

~~(ii) Wheel chocks must supplement parking brakes whenever conditions require.~~

~~(2) **Vehicle operation.** Operation of bulk delivery and mixing vehicles must comply with these requirements:~~

~~(a) **Driver training.** The vehicle driver must be:~~

~~(i) Trained in the safe operation of the vehicle and mixing, conveying, and related equipment.~~

~~(ii) Familiar with the supplies being delivered and emergency procedures.~~

~~**Pneumatic loading.**~~

~~(b) **Cargo and containers.**~~

~~(i) Hauling either detonators or other explosives is permitted on bulk trucks provided a special wood or nonferrous lined container is installed for explosives.~~

~~(ii) Detonators and explosives must be in U.S. DOT specified shipping containers, according to 49 C.F.R. Chapter 1.~~

~~(c) **Moving a vehicle in the blast area.** When moving a vehicle in the blasting area:~~

~~(i) The driver must exercise caution to avoid driving the vehicle onto or dragging hoses over firing lines, cap wires, or explosive materials; and~~

~~(ii) A second person must help guide the vehicle driver's movements.~~

~~(d) **Transfer locations.** The location chosen to transfer water-gel or other ingredients from a support vehicle to the drill hole loading~~

~~vehicle, must be removed from the blast hole site if the drill holes are loaded or are in the process of being loaded.~~

~~(e) **Prohibited activities**. The following are prohibited:~~

~~(i) In-transit mixing of materials;~~

~~(ii) Smoking; and~~

~~(iii) Carrying flame-producing devices including matches and firearms near bulk vehicles in the process of mixing, transferring, or down-the-hole loading of water-gels, at or near the blast site.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-67170, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67170, filed 1/23/02, effective 3/1/02.]

((~~UNDERWATER BLASTING OPERATIONS~~))

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67180 ((~~**Separation distance from vessels and people.**~~)) **Reserved.** ((~~(1) A blast cannot be fired while any moving vessel is within one thousand five hundred feet of the blasting area.~~

~~(2) People on board vessels or crafts moored or anchored within one thousand five hundred feet must be notified before a blast is fired.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67180, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67185 ((~~**Swimming and diving activities.**~~)) **Reserved.**

((~~(1) A blast cannot be fired while any swimmers or divers are in the vicinity of the blasting area.~~

~~(2) If swimming and diving activities are in progress, a signaling arrangement must be agreed upon to communicate blast warnings prior to blasting.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67185, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67190 ((~~**Initiation systems.**~~)) **Reserved.** ((~~Water resistant initiation systems must be used for underwater blasting.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67190, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67195 ((~~**Loading tubes and casings.**~~)) **Reserved.** ((~~(1) When a tube is necessary, loading must be done through a nonsparking loading tube.~~

~~(2) Loading tubes and casings must be the same type of metal to prevent electric transient currents from occurring as a result of a galvanic reaction of the metals and water.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67195, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67200 ((~~**Multiple charges.**~~)) **Reserved.** ((~~(1) When more than one charge is placed underwater, a float device must be~~

~~attached to an element of each charge to make sure it will be released when the charge is fired.~~

~~(2) Blasting flags must be displayed.~~

~~(3) Misfires must be handled according to the requirements of WAC 296-52-67110(3), Misfires.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67200, filed 1/23/02, effective 3/1/02.]

((~~UNDERGROUND BLASTING OPERATIONS~~))

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67210 ((~~**Storage.**~~)) **Reserved.** ((~~(1) **Permanent storage.** The following are requirements for permanent storage:~~

~~(a) Explosives or blasting agents cannot be permanently stored in an underground operation until at least two exit routes are developed.~~

~~(b) Permanent underground storage magazines:~~

~~(i) Must be a minimum of three hundred feet from any shaft, adit, or active underground working area.~~

~~(ii) Containing detonators must be a minimum of fifty feet away from any magazine containing other explosives or blasting agents.~~

~~(2) **Tunnels, shafts, or caissons.** Detonators and explosives cannot be stored or kept in tunnels, shafts, or caissons.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67210, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67215 ((~~**Separation distance: Electrical storms.**~~)) **Reserved.** ((~~When an electrical storm is approaching, explosives at the adit, or the top of any shaft leading to where people are working, must be moved to a distance equal to the distance required for inhabited buildings (Table H-20), unless this would create a greater hazard.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67215, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67220 ((~~**Proper fume class use.**~~)) **Reserved.** ((~~(1) **Fume Class 1.** Fume Class 1 explosives must be used for underground operations, as specified by the IME.~~

~~(2) **Fume Classes 2 and 3.** Explosives complying with the requirements of fume Class 2 and 3 may be used if adequate ventilation is provided.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67220, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67225 ((~~**Combustible gases or dusts.**~~)) **Reserved.**

((~~Explosives cannot be loaded or used underground where combustible gases or combustible dusts exist unless approved by the Mine Safety and Health Administration (MSHA).~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67225, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-67230 ((~~**Initiating systems.**~~)) **Reserved.** ((~~Electric systems.~~

~~(1) **Safety switch.** A safety switch must be:~~

~~(a) Placed at intervals in the permanent firing line when firing from a power circuit.~~

~~(b) Made:~~

~~(i) So it can only be locked in the "off position"; or~~

~~(ii) With a short-circuiting arrangement of the firing lines to the detonator circuit.~~

~~(2) **Lighting gap.** A lighting gap must be:~~

~~(a) At least five feet ahead (in the firing system) of the main firing switch, between the switch and power source.~~

~~(b) Bridged by a flexible jumper cord just before firing the blast.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-67230, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67230, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67235 ((~~**Firing the blast.**~~)) **Reserved.** ((~~(1) **Employee evacuation.** The blaster must make sure all employees are out of the blast area before firing a blast.~~

~~(2) **Guarding entrances.** All entrances:~~

~~(a) Leading into the blasting area must be carefully guarded.~~

~~(b) To any working place where a drift, raise, or other opening is about to hole through must be carefully guarded.~~

~~(3) **Warning signals.** A warning must be given before firing an underground blast. See Table T-1 for signaling requirements.~~

~~TABLE T-1~~	
~~WARNING SIGNAL~~	~~A 1 minute series of long blasts 5 minutes prior to blast signal.~~
~~BLAST SIGNAL~~	~~A series of short blasts 1 minute prior to the shot.~~
~~ALL CLEAR SIGNAL~~	~~A prolonged blast following the inspection of the blast.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67235, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-67240 ((~~**Returning to the blast.**~~)) **Reserved.** ((~~(1) **Smoke and fumes.** The blaster in charge must wait a minimum of fifteen minutes to allow smoke and fumes to clear before returning to the shot.~~

~~(2) **Muck pile.** Workers cannot return to work until the muck pile has been watered down.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67240, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-67245 ((~~**High speed tunneling: Central primer house.**~~)) **Reserved.**

((~~**Note:** The following requirements apply when primers are made up at a central primer house for use in high speed tunneling:~~

~~(1) **Primers.**~~

~~(a) Only enough primer must be made for each round of blasting.~~

~~(b) Primers must be placed in separate containers and bins, categorized by the degree of delay in preventing physical impact.~~

~~(2) **Separation of explosives in magazines.** Explosives transported in the same magazine must be separated by:~~

~~(a) One-quarter inch steel; and~~

~~(b) Covered on each side by four inches of hardwood planking or equivalent protection.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-67245, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-67245, filed 1/23/02, effective 3/1/02.]

((~~PART D~~

~~TRANSPORTATION OF EXPLOSIVE MATERIALS~~

~~Note:~~ ~~Requirements for transportation of blasting agents are located at WAC 296-52-67145, Transportation of blasting agents.~~

~~SCOPE~~))

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-68010 ((~~**Public highways.**~~)) **Reserved.**

((~~Transportation of explosives on public highways are:~~

~~(1) Regulated by:~~

~~(a) United States Department of Transportation (U.S. DOT) (49 C.F.R., Parts 100 - 199);~~

~~(b) The Washington utilities and transportation commission.~~

~~(2) Administered and enforced by the Washington state patrol.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-68010, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-68010, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-68015 ((~~**Job sites and off-highway roads.**~~)) **Reserved.**

((~~The transportation rules in this chapter apply to:~~

~~(1) On job sites and off highway roads.~~

~~(2) Privately financed, constructed, or maintained roads.~~

~~**Note:** These rules do not apply to state or interstate highway systems.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-68015, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-68015, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-68020 ((~~**Safety precautions.**~~)) **Reserved.** ((~~No one may:~~

~~(1) Smoke or carry matches, or any other flame producing device, while in or near a vehicle transporting explosives.~~

~~(2) Carry firearms or ammunition while in or near a vehicle transporting explosives, except guards or commissioned law enforcement officers.~~

~~(3) Drive, load, or unload a vehicle transporting explosives in a careless or reckless manner.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-68020, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-68020, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 06-19-074, filed 9/19/06, effective 12/1/06)

WAC 296-52-68025 ((~~**Transportation of workers.**~~)) **Reserved.**

((~~Only authorized personnel properly trained in the safe handling of explosives will be allowed in vehicles transporting explosives, provided seat belts are available for all occupants.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 06-19-074, § 296-52-68025, filed 9/19/06, effective 12/1/06. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-68025, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-68030 ((~~**Cargo.**~~)) **Reserved.** ((~~Materials and supplies cannot be placed in the cargo space of vehicles or conveyance containing:~~

~~(1) Explosives;~~

~~(2) Detonating cord; or~~

~~(3) Detonators.~~

~~**Note:** It is okay to transport safety fuses and properly secured nonsparking equipment in cargo spaces.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-68030, filed 8/1/17, effective

9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-68030, filed 1/23/02, effective 3/1/02.]

((~~TRANSPORTATION VEHICLES~~))

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-68040 ((~~**Vehicle strength and condition.**~~)) **Reserved.**

((~~All vehicles used for transporting explosives must:~~

~~(1) Be strong enough to carry the load without difficulty;~~

~~(2) Be in good mechanical condition;~~

~~(3) Have a tight floor in the cargo compartment(s);~~

~~(4) Not have any exposed spark producing metal inside the vehicle, which could come in contact with explosives.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-68040, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-68040, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-68045 ((~~**Open top vehicles.**~~)) **Reserved.** ((~~(1) **Locations of use.** While loaded with explosives, open top vehicles must only be used on:~~

~~(a) The job site; or~~

~~(b) Roads that are closed to public travel.~~

~~(2) **Containers.** Explosives being transported in open top vehicles or trailers must be transported in:~~

~~(a) The original U.S. DOT approved shipping container or box; or~~

~~(b) A day box or portable magazine that complies with the requirements of this chapter.~~

~~(3) **Securing containers.** Explosive containers, boxes, day boxes, or portable magazines must be fastened to the bed of the vehicle or trailer.~~

~~(4) **Loading.** Packages of explosives cannot be loaded above the sides on open top vehicles.~~

~~(5) **Tarpaulins** (tarps).~~

~~(a) If an explosives transportation vehicle or trailer does not have a fully enclosed cargo area with nonsparking interior, the cargo~~

~~bed and all explosive cargo must be covered with a flame and moisture proof tarp or other effective protection against moisture and sparks.~~

~~(b) Whenever tarps are used for covering explosives, both the tarp and the explosives container must be fastened to the body of the truck bed with rope, wire, or other equally efficient tie downs.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-68045, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-68045, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-68050 ((~~**Vehicle placards.**~~)) **Reserved.** ((~~All vehicles transporting explosives material must have placards. They must:~~

~~(1) Be displayed as specified by U.S. DOT;~~

~~(2) Remain on the vehicle until all explosives have been removed.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-68050, filed 8/1/17, effective

9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-68050, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-68055 ((**~~Vehicle fire protection.~~**)) **Reserved.** ((~~(1) **Fire extinguishers.**~~

~~(a) **Driver training.** The driver must be trained to use the fire extinguishers on the vehicle;~~

~~(b) **Equipment specifications.** Vehicles used for transporting explosive materials must be equipped with fire extinguishers according to the gross vehicle weight:~~

~~(i) Less than 14,000 pounds: A minimum of two multipurpose dry-chemical extinguishers having a combined capacity of at least 4-A:20-B:C;~~

~~(ii) 14,000 pounds or greater: A minimum of two multipurpose drychemical extinguishers having a combined capacity of at least 4-A:70-B:C.~~

~~(c) **Laboratory approval**. Only fire extinguishers approved by a nationally recognized testing laboratory can be used on vehicles carrying explosives;~~

~~(d) **Condition and location**. Fire extinguishers must be filled, ready for immediate use, and easily reached;~~

~~(e) **Inspection**. A competent person must inspect fire extinguishers periodically. You must comply with the requirements of WAC 296-800-30020, Inspect and test all portable fire extinguishers.~~

~~(2) **Vehicle inspection**. Any motor vehicle used for transporting explosives must have a safety inspection. The inspection must verify that:~~

~~(a) Fire extinguishers are filled and in working order;~~

~~(b) All electrical wiring is protected and securely fastened to prevent short circuiting;~~

~~(c) Chassis, motor, pan, and underside of body are reasonably clean and free of excess oil and grease;~~

~~(d) Fuel tank and feedline are secure and have no leaks;~~

~~(e) Tires are checked for proper inflation and defects;~~

~~(f) Brakes, lights, horn, windshield wipers, and steering apparatus are functioning properly;~~

~~(g) The vehicle is in proper condition in every other respect and acceptable for handling explosives.~~

~~(3) **Vehicle repair/servicing.** Motor vehicles or conveyances carrying explosives, blasting agents, or blasting supplies cannot be repaired or serviced inside a garage or shop when carrying explosive material.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-68055, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-68055, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-68060 ((~~**Operation of vehicles transporting explosives.**~~)) **Reserved.** ((~~(1) **Authorized explosives transportation.** Explosives may only be transported by a:~~

~~(a) Licensed manufacturer;~~

~~(b) Blaster;~~

~~(c) Purchaser, seller, or their designated representative; or~~

~~(d) Contract carrier for hire who complies with all requirements for transportation of hazardous materials.~~

~~(2) **Driver qualifications.**~~

~~(a) Vehicles transporting explosives must be driven by a responsible licensed driver who is:~~

~~(i) At least twenty-one years old;~~

~~(ii) Physically fit;~~

~~(iii) Careful;~~

~~(iv) Capable;~~

~~(v) Reliable;~~

~~(vi) Able to read and write the English language;~~

~~(vii) Not addicted to or under the influence of intoxicants, narcotics, or other dangerous drugs. (This does not apply to people taking prescription drugs and/or narcotics as directed by a physician, as long as use of the prescription drug does not endanger the worker or others.)~~

~~(b) The driver must be:~~

~~(i) Familiar with all:~~

~~(A) Traffic regulations;~~

~~(B) Department of Transportation (U.S. DOT) and other state laws in the transportation of explosives and hazardous material laws.~~

~~(ii) Aware of:~~

~~(A) What they are carrying;~~

~~(B) Safety precautions for the explosives being transported.~~

~~(3) **Parking - Division 1.1 or 1.2 explosives.** A vehicle that contains Division 1.1 or 1.2 explosives cannot be parked:~~

~~(a) On or within five feet of the traveled portion of a public street or highway;~~

~~(b) On private property, including fueling or eating facilities, without the knowledge and consent of the person. The person in charge must be aware of the hazardous materials in the vehicle; or~~

~~(c) Within three hundred feet of a bridge, tunnel, dwelling, building, or place where people work, congregate, or assemble.~~

~~**Exemption:** These restrictions do not apply when:~~
~~— Routine operations require the vehicle be parked for a brief period of time.~~
~~— It is impractical to park the vehicle any other place.~~

~~(4) **Vehicle attendance.** A vehicle transporting any quantity of Division 1.1 or 1.2 explosives must be attended at all times by a driver or other representative of the vehicle carrier, exceptions are:~~

~~(a) A vehicle containing explosive materials may be left unattended for a period not to exceed forty-eight hours provided the vehicle is parked in a designated parking lot, which complies with~~

~~NFPA Std. 498 and the appropriate distance table for the type and quantity of explosives.~~

~~(b) The parking lot must:~~

~~(i) Be correctly bermed, walled, or fenced, and gated to prevent unauthorized entry;~~

~~(ii) Be inspected and approved by the department;~~

~~(iii) Provide a full-time, continuous security patrol when explosives are present.~~

~~(c) An explosives delivery truck does not need to be attended when it only contains Division 1.5 and no high explosives, provided the:~~

~~(i) Vehicle is locked so it cannot be moved;~~

~~(ii) Cargo compartments are locked to prevent theft;~~

~~(iii) Vehicle is parked according to all applicable storage distance requirements;~~

~~(iv) Vehicle is located in a secured area that restricts entry of unauthorized personnel.~~

~~(5) **Attendant.**~~

~~(a) An authorized attendant must be physically present and able to see the explosives at all times.~~

~~(b) In an emergency, the attendant must be able to quickly get to the explosives without interference.~~

~~(c) The attendant must:~~

~~(i) Be awake;~~

~~(ii) Be alert;~~

~~(iii) Not be engaged in activities, which could divert their attention;~~

~~(iv) Be aware of the division of the explosive material and its dangers;~~

~~(v) Be instructed in the methods and procedures used to protect the public;~~

~~(vi) Be familiar with the particular vehicle being driven;~~

~~(vii) Be trained in the use of the vehicle;~~

~~(viii) Have authorization and be able to move the vehicle if required.~~

~~(6) **Loading precautions**. A vehicle must comply with U.S. DOT loading regulations in order to transport explosives in the same vehicle body with the following items:~~

~~(a) Spark producing metal;~~

~~(b) Spark producing tools;~~

~~(c) Oils;~~

~~(d) Matches;~~

~~(e) Firearms;~~

~~(f) Electric storage batteries;~~

~~(g) Flammable substances;~~

~~(h) Acids;~~

~~(i) Oxidizing materials; or~~

~~(j) Corrosive compound.~~

~~(7) **Congested areas.** Vehicles transporting explosives must avoid congested areas and heavy traffic.~~

~~(8) **Disabled vehicles.**~~

~~(a) A qualified person must be present before explosives can be transferred from a disabled vehicle to another vehicle;~~

~~(b) If a vehicle becomes disabled in a congested area, you must promptly notify local fire and police authorities. In a remote area they may be notified if necessary.~~

~~(9) **Explosives delivery and issue.** Delivery and issue of explosives must be made:~~

~~(a) Only by and to authorized people;~~

~~(b) Into authorized magazines or authorized temporary storage or handling areas.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-68060, filed 8/1/17, effective 9/1/17; WSR 03-06-073, § 296-52-68060, filed 3/4/03, effective 8/1/03. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-68060, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-68065 ((~~**Transporting detonators and explosives in the same vehicle.**~~)) **Reserved.** ((~~(1) Fuse type detonators, detonators with a safety fuse, or detonators with a metal clad mild detonating fuse, cannot be transported in the same vehicle or trailer with other explosives, unless they comply with U.S. DOT hazardous material regulations for:~~

~~(a) Packaging;~~

~~(b) Separation;~~

~~(c) Transportation.~~

~~(2) Detonators rated as nonmass detonating by U.S. DOT may be transported in the same vehicle or trailer with other explosives when the:~~

~~(a) Detonators are carried in U.S. DOT approved shipping containers; or~~

~~(b) Truck or trailer complies with the requirements of IME Safety Library Publication Number 22, May 1993.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-68065, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-68065, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-68075 ((~~**Powder cars, vehicles, and conveyances.**~~)) **Reserved.** ((~~In underground blasting operations, explosives and blasting agents must be hoisted, lowered, or transported in a powder car.~~

~~(1) **State approval.** A state-approved powder car or conveyance must be used underground.~~

~~(2) **Two-unit compartments.** Compartments for transporting detonators and explosives together on the same conveyance must be physically separated by a:~~

~~(a) Distance of twenty-four inches; or~~

~~(b) Solid partition a minimum of six inches thick.~~

~~(3) **Auxiliary lights prohibited.** Auxiliary lights that are powered by an electrical system on a truck bed are prohibited.~~

~~(4) **Daily inspection.** The powder car or conveyance must be inspected daily for:~~

~~(a) Properly working lights;~~

~~(b) Properly working brakes;~~

~~(c) External damage to electrical circuitry.~~

~~(5) **Weekly inspection.** Weekly inspections must:~~

~~(a) Be conducted on the electrical system, to assess electrical hazards;~~

~~(b) Include a written inspection certification record that:~~

~~(i) Contains the date of inspection, the serial number, or other positive identification of the unit being inspected, and the signature of the person performing the inspection;~~

~~(ii) Is kept on file for the duration of the job.~~

~~(6) **Explosives warning sign.** Powder cars or conveyance built for transporting explosives or blasting agents must have signs posted on each side of the car that:~~

~~(a) State "EXPLOSIVES";~~

~~(b) Use letters a minimum of four inches high;~~

~~(c) Have a background color that sharply contrasts with the letters.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-68075, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-68075, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-68080 ((~~**Notification Hoist operator.**~~)) **Reserved.**

((~~Hoist operators must be notified before explosives or blasting agents are transported in a shaft conveyance.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-68080, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-68085 ((~~**Underground transportation.**~~)) **Reserved.**

((~~(1) **Explosives and blasting agents.** These requirements must be followed when transporting explosives and blasting agents underground:~~

~~(a) **Companion items.**~~

~~(i) Explosives or blasting agents cannot be transported in the same shaft conveyance with other materials, supplies, or equipment;~~

~~(ii) Detonators and other explosives cannot be transported in the same shaft conveyance;~~

~~(b) **Manual transportation.** Explosives or blasting agents that are not in their original containers must be placed in a suitable container when transported manually;~~

~~(c) **Car or conveyance.** The car or conveyance containing explosives or blasting agents must be pulled and not pushed;~~

~~(d) **Locomotives.** Explosives or blasting agents must:~~

~~(i) Not be transported on any locomotive;~~

~~(ii) Be separated by a minimum of two car lengths from the locomotive.~~

~~(c) **Riding on a conveyance.** When transporting explosives or blasting agents, no one can ride on:~~

~~(i) A shaft conveyance; or~~

~~(ii) Any other conveyance, except the operator, helper, or powder person.~~

~~(f) **Crew haul trips.** Explosives or blasting agents cannot be transported on a crew haul trip;~~

~~(g) **Disposition at arrival.** All explosives or blasting agents that are transported underground must immediately be taken to the place of use or storage.~~

~~(2) **Quantity limit.** The quantity of explosives or blasting agents taken to an underground loading area cannot exceed the amount estimated to be necessary for the blast.~~

~~(3) **Unloading primers at the blast site.** Primers must be:~~

~~(a) Unloaded after drilling has been completed and the holes in the round are ready for loading;~~

~~(b) Unloaded from the powder car at the face or heading;~~

~~(c) Removed from the powder car for only the exact number being used for the round;~~

~~(d) The powder car must be removed from the tunnel after the charge has been loaded.~~

~~(4) **Electric detonators.** Wires on electric detonators must be kept shunted until wired to the bus wires.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-68085, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-68085, filed 1/23/02, effective 3/1/02.]

((~~PART E~~

~~STORAGE OF EXPLOSIVE MATERIALS~~))

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-69005 ((~~**Detonators.**~~)) **Reserved.** ((~~Detonators must not be stored in magazines where other explosives are stored.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-69005, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-69010 ((~~**Explosives.**~~)) **Reserved.** ((~~All Division 1.1, 1.2, 1.3, and 1.4 explosives, special industrial explosives, and any newly developed unclassified explosives, must be kept in magazines that meet the requirements of RCW 70.74.120 and this chapter, unless the explosives are:~~

~~(1) In the manufacturing process;~~

~~(2) Being physically handled;~~

~~(3) Being used at the blast site; or~~

~~(4) Being transported to a place of storage or use.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-69010, filed 8/1/17, effective 9/1/17; WSR 03-06-073, § 296-52-69010, filed 3/4/03, effective 8/1/03. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-69010, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 03-06-073, filed 3/4/03, effective 8/1/03)

WAC 296-52-69015 ((~~**Exempt explosives.**~~)) **Reserved.** ((~~Explosives exempt from these storage requirements are:~~

~~**Type of Explosive**~~	~~**Exempted Amount**~~
~~Stocks of:~~	

~~Type of Explosive~~	~~Exempted Amount~~
~~• Small arms ammunition,~~ ~~• Propellant-actuated power cartridges, and~~ ~~• Small arms ammunition primers~~	~~Quantities less than 750,000~~
~~Smokeless powder~~	~~Quantities less than 150 pounds~~
~~Black powder (as used in muzzleloading firearms)~~	~~Quantities less than 5 pounds~~
~~Explosive-actuated power devices~~	~~Quantities less than 50 pounds net weight of explosives~~
~~Fuse lighters and igniters~~	~~(not applicable)~~
~~Safety fuses (except cordeau detonant fuses)~~	~~(not applicable)~~)))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 03-06-073, § 296-52-69015, filed 3/4/03, effective 8/1/03. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-69015, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 05-08-110, filed 4/5/05, effective 6/1/05)

WAC 296-52-69020 ((~~**Storage facilities.**~~)) **Reserved.**

((~~Explosives, except as specified in WAC 296-52-69015, and detonators in quantities of more than one thousand must be stored in permanent Type 1 magazines or approved and licensed magazines.~~

~~Note 1:~~ ~~Components storage.~~

~~Any two components which when mixed and become capable of detonation by a #8 detonator must be stored in a licensed approved magazine. Each component of two component explosives when unmixed must be stored in separate locked containers.~~

~~**Note 2:** Electro magnetic radiation precautions.~~
~~Blasting operations or storage of electrical detonators are prohibited in the area of operation radio frequency (RF) transmitter stations except where the clearances (WAC 296-52-67060, Extraneous electricity and radio frequency (RF) transmitters) can be observed.~~

~~**Note 3:** Detonators, electric detonators, detonating primers, and primed cartridges.~~
~~Detonators, electric detonators, detonating primers, and primed cartridges cannot be stored together or in the same magazine with other explosives.~~

~~**Note 4:** Ammonium perchlorate rocket motors.~~
~~Ammonium perchlorate rocket motors in 62.5 grams amounts or greater, but not to exceed fifty pounds in total weight of explosives, may be stored in an attached garage of a single-family residence if the living area is separated by a fire wall with one-hour minimum fire resistance.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 05-08-110, § 296-52-69020, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-69020, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-69025 ((~~**Quantity and distance tables.**~~)) **Reserved.**

((~~All explosive manufacturing buildings and magazines that store explosives or blasting agents (except small arms ammunition and smokeless powder), must meet the requirements as specified in:~~

~~(1) Table H-20, Distances for Storage of Explosives;~~

~~(2) Table H-21, Distance Table for Separation between Magazines;~~

~~(3) Table H-22, Separation Distance of Ammonium Nitrate and Blasting Agent from Explosives or Blasting Agents.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-69025, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-69025, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-69030 ((~~**Storage within magazines.**~~)) **Reserved.** ((~~(1) **Storage materials.** Magazines cannot be used for storage of metal tools or any commodity other than:~~

~~(a) Explosives;~~

~~(b) Blasting agents;~~

~~(c) Blasting supplies.~~

~~(2) **Black powder.**~~

~~(a) Black powder must be stored separately from other explosives in a magazine.~~

~~(b) Kegs must be stored on end, bungs down, on sides, seams down.~~

~~(3) **Age/or date mark.** Explosives that are not already age/or date marked by the manufacturer, must be marked with the manufacturing date before being stored in the magazine.~~

~~**Note:** Unidentified explosives confiscated by law enforcement may be marked with the confiscation date, if the manufacturer's date is unknown.~~

~~(4) **Grades and brands.**~~

~~(a) Identical grades and brands of explosives must be stored together, with the brands and grade marks showing.~~

~~(b) Explosive materials must be stored so they can be easily checked and counted.~~

~~(5) **Package placement.** Explosive packages must be:~~

~~(a) Placed right side up;~~

~~(b) Stacked so they are stable.~~

~~(6) **Ventilation.** Explosive material cannot be:~~

~~(a) Stored where they could interfere with ventilation; or~~

~~(b) Placed less than two inches from the interior walls.~~

~~**Note:** Nonsparking lattice or other nonsparking material may be used to prevent contact of stored explosive material with interior walls.~~

~~(7) **Housekeeping.**~~

~~(a) Magazine floors must be:~~

~~(i) Regularly swept and the sweepings properly disposed of;~~

~~(ii) Kept clean and dry;~~

~~(iii) Free of grit, paper, and used packages or rubbish.~~

~~(b) Brooms and other cleaning tools cannot have any spark producing metal parts.~~

~~(c) Floors stained with nitroglycerin must be cleaned according to the manufacturer's instructions.~~

~~(8) **Unpacking or repacking explosives.**~~

~~(a) Containers of explosives (except for fiberboard or other nonmetal containers) cannot be unpacked or repacked:~~

~~(i) In a magazine;~~

~~(ii) Within fifty feet of a magazine; or~~

~~(iii) Near other explosives.~~

~~(b) Opened packages of explosives must be securely closed before returning them to a magazine.~~

~~(c) Tools used for opening packages of explosives must be constructed of nonsparking materials.~~

~~(d) A wood wedge and a fiber, rubber, or wood mallet must be used for opening or closing wooden crates of explosives.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-69030, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-69030, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-69035 ((~~**Storage limits.**~~)) **Reserved.** ((~~More than 300,000 pounds of explosive materials or 20,000,000 of detonators cannot be stored in the same storage magazine.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-69035, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-69040 ((~~**Notification of fire safety authority.**~~)) **Reserved.** ((~~Any person who stores explosive material must notify the local fire safety authority, who has jurisdiction over the area where the explosive material is stored.~~

~~(1) The local fire safety authority must be notified:~~

~~(a) Orally, on the first day explosive materials are stored;~~

~~(b) In writing, within forty-eight hours, from the time the explosive material was stored;~~

~~(c) In writing when an explosive storage license is renewed.~~

~~(2) The notification must include the following for each site where explosive material is stored:~~

~~(a) Type of explosives;~~

~~(b) Magazine capacity;~~

~~(c) Location.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-69040, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060, and chapter 49.17 RCW. WSR 11-01-124, § 296-52-69040, filed 12/20/10, effective 2/1/11. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-69040, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-69045 ((~~**Magazine repairs.**~~)) **Reserved.** ((~~Before beginning repair activities that could cause sparks or fire:~~

~~(1) All explosives must be removed from the magazine under repair and placed in another magazine or a safe distance away;~~

~~(2) Explosives must be properly guarded until they are returned to the magazine;~~

~~(3) The floor must be cleaned before beginning repairs inside a magazine.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-69045, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-69045, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-69050 ((~~**Inventory.**~~)) **Reserved.** ((~~(1) A qualified person must be:~~

~~(a) Responsible for the magazine at all times;~~

~~(b) At least twenty-one years old;~~

~~(c) Held responsible for the enforcement of all safety requirements.~~

~~(2) Explosives must:~~

~~(a) Be accounted for at all times;~~

~~(b) Be kept in a locked magazine when not in use;~~

~~(c) Not be easily accessed by unauthorized persons.~~

~~(3) Inventory and use records must be kept up to date for all explosives.~~

~~(4) Any person responsible for explosives who discovers a theft or loss of explosives must report the incident to local law enforcement within twenty-four hours.~~

~~(5) Law enforcement agencies must report a theft or loss of explosives to the department immediately.~~

~~(6) Other people who know of attempted or actual unauthorized magazine entry must report this information to local law enforcement.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-69050, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-69050, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-69055 ((**~~Inspection.~~**)) **Reserved.** ((~~(1) **Weekly inspection.**~~

~~(a) The person or company responsible for the contents of the magazine must inspect the magazine at least every seven days to determine whether there has been an unauthorized:~~

~~(i) Attempted entry into the magazine; or~~

~~(ii) Removal of explosives from the magazine.~~

~~(b) The person doing the inspection must be familiar with the magazine and its contents.~~

~~**Note:** This inspection does not need to be an inventory.~~

~~(2) **Inspection documentation.**~~

~~(a) The person doing the inspection must sign one of the following documents after completing the inspection:~~

~~(i) A weekly inspection log;~~

~~(ii) An inventory sheet; or~~

~~(iii) Other record.~~

~~(b) Weekly inspection records must be kept for at least one year.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-69055, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and

[49.17].050. WSR 02-03-125, § 296-52-69055, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-69060 ((~~**Precautions for areas surrounding magazine.**~~)) **Reserved.** ((~~(1) **Firearms**. Only qualified guards and qualified law enforcement officers are allowed to carry firearms inside or within fifty feet of a magazine.~~

~~(2) **Area maintenance**. The area surrounding magazines must:~~

~~(a) Be kept clear of rubbish, brush, dry grass, or trees, except live trees more than ten feet tall, for a minimum of twenty-five feet in all directions;~~

~~(b) Be free of volatile materials for a minimum of fifty feet from outdoor magazine;~~

~~(c) Have the ground around storage facilities slope away for drainage; living foliage does not need to be removed.~~

~~(3) **Fire sources**. Smoking, matches, open flames, and spark producing devices are not permitted:~~

~~(a) In any magazine;~~

~~(b) Within fifty feet of an outdoor magazine; or~~

~~(c) In any room containing an indoor magazine.~~

~~(4) **Warning sign.**~~

~~(a) **Access routes.** All normal access routes to explosive material storage facilities, except Class 3 (1.4) magazines, must be posted with warning signs that read:~~

~~**DANGER**~~

~~**NEVER FIGHT EXPLOSIVE FIRES**~~

~~**EXPLOSIVES ARE STORED ON THIS SITE**~~

~~**CALL** _____~~

~~(b) **Sign specifications and placement.** Signs must:~~

~~(i) Be contrasting in color;~~

~~(ii) Have the pin stroke of the letters a minimum of three inches (75 mm) high and one-half inch (12.5 mm) wide;~~

~~(iii) Be placed so a bullet passing through the sign will not strike a magazine;~~

~~(iv) Not be attached to magazines.~~

~~(c) **Transportation placards.** Placards required by the U.S. Department of Transportation (DOT) (49 C.F.R.) for transporting blasting agents must be displayed on all Class 5 magazines where blasting agents are stored.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-69060, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-69060, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-69065 ((~~**Deteriorated explosives.**~~)) **Reserved.** ((~~(1) Explosives must be immediately destroyed, according to the manufacturer's recommendations, whenever they are suspected of deteriorating to the point they are:~~

~~(a) Unstable;~~

~~(b) Dangerous;~~

~~(c) Leaking nitroglycerine.~~

~~(2) Only a licensed blaster may destroy explosives.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-69065, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and

[49.17].050. WSR 02-03-125, § 296-52-69065, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-69070 ((~~**Explosives recovered from misfires.**~~)) **Reserved.** ((~~(1) **Storage.** Explosives recovered from misfires must be placed in a separate licensed magazine until they can be disposed of according to the manufacturer's recommendations.~~

~~(2) **Detonator use.** Detonators suspected of being defective cannot be reused.~~

~~(3) **Disposal.** The blaster in charge must dispose of explosives and detonators according to the manufacturer's recommendations.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-69070, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-69070, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-69080 ((~~**Blast site storage.**~~)) **Reserved.** ((~~(1) **Location.** Temporary storage for explosives at blast sites must be located away from:~~

~~(a) Inhabited buildings;~~

~~(b) Railways;~~

~~(c) Highways;~~

~~(d) Other magazines.~~

~~(2) **Separation distance.** A distance must be maintained between magazines and the blast site. This distance must be a minimum of:~~

~~(a) One hundred fifty feet when the quantity of explosives is greater than twenty-five pounds;~~

~~(b) Fifty feet when the quantity of explosives is twenty-five pounds or less.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-69080, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-69080, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-69085 ((~~**Multiple magazines.**~~)) **Reserved.** ((~~(1) **Separation distance.** When two or more storage magazines are located on the same property, each magazine must comply with the minimum quantity of explosives and separation distance requirements for:~~

~~(a) Magazines (Table H-21);~~

~~(b) Inhabited buildings, railways, and highways (Table H-20).~~

~~(2) **Distances that do not meet requirements.** If the separation distance between two or more magazines is less than the distance required (Table H-21), the magazines must:~~

~~(a) Be considered one magazine; and~~

~~(b) Comply with the minimum distance requirements for inhabited buildings, railways, and highways (Table H-20).~~

~~(3) **Distance of grouped magazines to other magazines.** Each magazine in a group must comply with minimum magazine distance requirements (Table H-21) in relation to other magazines not considered part of the group.~~

~~(4) **Quantity of explosives.**~~

~~(a) **Magazine group.** The total quantity of explosives stored in a magazine group (two or more) must:~~

~~(i) Be considered one magazine;~~

~~(ii) Not exceed the requirements of Table H-21 for one magazine.~~

~~(b) **Detonator magazine.** The quantity of explosives contained in a detonator magazine takes precedence over the minimum magazine distance requirements (Table H-21) when determining the separation distance required between a detonator magazine and magazines that contain other types of explosives.~~

~~(c) **Detonator strength.** Strengths of blasting and electric detonators:~~

~~(i) Up to #8 detonators must be rated as one and one-half pounds of explosives per one thousand detonators;~~

~~(ii) Detonators greater than #8 must be computed on the combined weight of explosives.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-69085, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-69085, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-69090 ((~~**Blasting agents and supplies.**~~)) **Reserved.**

((~~(1) **Storage.**~~

~~**Note:** You may store blasting agents with nonexplosive blasting supplies.~~

~~(a) When stored with explosives, blasting agents or ammonium nitrate must be stored as required in magazine construction.~~

~~(b) When computing the total quantity of explosives, the mass of blasting agents and one-half the mass of ammonium nitrate must be included when determining the distance requirements.~~

~~(c) When stored separately from explosives, blasting agents and ammonium nitrate must be stored as required in this chapter; or~~

~~Warehouses which are:~~

~~(i) One story without basements;~~

~~(ii) Noncombustible or fire resistant;~~

~~(iii) Constructed so there are no open floor drains and piping where molten materials could flow and be trapped in case of fire;~~

~~(iv) Weather resistant;~~

~~(v) Well ventilated;~~

~~(vi) Equipped with a strong door which is securely locked except when open for business.~~

~~(d) Semi-trailer or full trailer vans used for highway or on-site transportation of blasting agents. They must:~~

~~(i) Comply with location requirements for inhabited buildings, passenger railways, and public highways in Table H-20;~~

~~(ii) Be in accordance with the distance requirements in Table H-22;~~

~~(iii) Have substantial means for locking and the trailer doors must be kept locked except during the time of placement or removal of blasting agents.~~

~~(e) Storage warehouses for blasting agents:~~

~~(i) Must comply with the location requirements for inhabited buildings, passenger railways, and public highways in Table H-20;~~

~~(ii) Must be in accordance with the distance requirements in Table H-22.~~

~~(f) Combustible materials, flammable liquids, corrosive acids, chlorates, or nitrates cannot be stored in warehouses used for blasting agents unless they are separated by a fire resistant wall with a minimum of one-hour fire resistance.~~

~~(g) A competent person, at least twenty-one years old, must supervise every warehouse used for the storage of blasting agents.~~

~~(2) **Combustible materials**. These activities and items are prohibited within fifty feet (15.2 m) of any warehouse used for storing blasting agents:~~

~~(a) Smoking;~~

~~(b) Matches;~~

~~(c) Open flames;~~

~~(d) Spark producing devices;~~

~~(e) Firearms.~~

~~(3) **Housekeeping**. The interiors of warehouses used for storing blasting agents must be:~~

~~(a) Kept clean, and free from debris and empty containers;~~

~~(b) All spilled materials must be promptly cleaned.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-69090, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-69090, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-69095 ((~~**Ammonium nitrate.**~~)) **Reserved.** ((~~(1) **Storage.**~~

~~(a) Ammonium nitrate storage requirements do not apply to:~~

~~(i) The transportation of ammonium nitrates while under the jurisdiction of and in compliance with U.S. DOT regulations (see 49 C.F.R., Part 173);~~

~~(ii) The storage of ammonium nitrates while under the jurisdiction of and in compliance with U.S. Coast Guard (see 49 C.F.R., Parts 146-149);~~

~~(iii) The storage of ammonium nitrate and ammonium nitrate mixtures, which are more sensitive than allowed by the bulletin: "Definition and test procedures for ammonium nitrate fertilizers" from the Fertilizer Institute, 501 2nd Street N.E., Washington, D.C. 20006.~~

~~This definition limits the contents of organic materials, metals, sulfur, etc., in products that may be classified ammonium nitrate fertilizer.~~

~~(iv) The production of ammonium nitrate or the storage of ammonium nitrate on the premises of the producing plant, if no hazards are created to the employees or public;~~

~~(v) The standards for ammonium nitrate (nitrous oxide grade) that are found in the:~~

~~"Specifications, properties and recommendations for packaging, transportation, storage and use of ammonium nitrate," from the Compressed Gas Association, Inc., 1235 Jefferson Davis Highway, Suite 1004, Arlington, VA 22202-4100.~~

~~(b) Ammonium nitrate storage requirements apply to:~~

~~(i) Anyone, in addition to the owner or lessee of any building, premises, or structure having or storing ammonium nitrate in quantities of one thousand pounds (425 kg) or more;~~

~~(ii) Ammonium nitrate in the form of crystals, flakes, grains, or prills including fertilizer grade, dynamite grade, nitrous oxide grade, technical grade, and other mixtures containing sixty percent or more ammonium nitrate by weight.~~

~~Note:~~ ~~The approval of large quantity storage is based on the fire and explosion hazards, including exposure to toxic vapors from burning or decomposing ammonium nitrate.~~

~~(c) Storage buildings housing ammonium nitrate must:~~

~~(i) Have adequate ventilation or be self-ventilating in the event of a fire;~~

~~(ii) Have fire resistant walls when the exposed side of a storage building is within fifty feet (15.2 m) of a combustible building, forest, piles of combustible materials, and similar exposure hazards. Other suitable means of exposure protection such as a freestanding wall may be used instead of a fire resistant wall;~~

~~(iii) Have roof coverings that are Division 1.4 or better as defined in Roof Coverings, NFPA 203M-1970;~~

~~(iv) Have flooring of noncombustible material or be protected against saturation by ammonium nitrate. In case of fire, the floor must not have open drains, traps, tunnels, pits, or pockets into which molten ammonium nitrate could flow and be confined;~~

~~(v) Be dry and free from water seepage through the roof, walls, and floors;~~

~~(vi) Not have basements, unless the basements are open on at least one side;~~

~~(vii) Not be over one story in height.~~

~~Note:~~ ~~The continued use of an existing storage building or structure may be approved in cases where continued use will not constitute a hazard to life or adjoining property.~~

~~Bags, drums, and other containers of ammonium nitrate must:~~

~~(d) Comply with specifications and standards required for use in interstate commerce (see 49 C.F.R., Chapter 1). Containers used on the~~

~~premises in the actual manufacturing or processing do not need to comply;~~

~~(i) Not be used for storage when the temperature of the ammonium nitrate exceeds 130°F (54.4°C);~~

~~(ii) Not be stored within thirty inches (76 cm) of the storage building walls and partitions;~~

~~(iii) Not be stacked higher than twenty feet (6.1 m) in height, twenty feet (6.1 m) in width, and fifty feet (15.2 m) in length. When buildings are constructed of noncombustible materials or protected by automatic sprinklers, there are no stacking height restrictions;~~

~~(iv) Never be stacked closer than thirty-six inches (.09 m) below the roof or overhead supporting and spreader beams;~~

~~(v) Be separated by aisles a minimum of three feet wide. There must be one main aisle in the storage area a minimum of four feet (1.2 m) wide.~~

~~(c) Bulk ammonium nitrate must be stored:~~

~~(i) In warehouses with adequate ventilation or be capable of adequate ventilation in case of fire;~~

~~(ii) In structures that are not more than forty feet (12.2 m) high, unless:~~

~~(A) They are constructed of noncombustible material; or~~

~~(B) Have adequate facilities for fighting a roof fire.~~

~~(iii) In clean bins that are free of materials that could cause contamination;~~

~~(iv) In bins or piles that are clearly identified by signs reading "AMMONIUM NITRATE" in letters a minimum of two inches (5 cm) high;~~

~~(v) In bins or piles sized and arranged so all material is moved periodically to minimize the possibility of caking;~~

~~(vi) Adequately separated from easily combustible fuels. Bins cannot be made of galvanized iron, copper, lead, and zinc because of the:~~

~~(A) Corrosive and reactive properties of ammonium nitrate; and~~

~~(B) To avoid contamination.~~

~~(vii) In tightly constructed wooden and aluminum bins that are protected against saturation from ammonium nitrate;~~

~~(viii) In tightly constructed partitions that divide the ammonium nitrate from other products to avoid contamination;~~

~~(ix) Where the temperature of the product does not exceed 130°F (54.4°C);~~

~~(x) No higher than thirty-six inches (0.9 m) below the roof or overhead supporting and spreader beams if stacked in piles. Stack~~

~~limits (height and depth), should be determined by the pressure setting tendency of the product.~~

~~(f) Bulk ammonium nitrate when caked, cannot be broken up or loosed by the use of dynamite, other explosives or blasting agents.~~

~~(g) Bulk ammonium nitrate cannot be stored with:~~

~~(i) LP Gas on the premises except when such storage complies with WAC 296-24-475, Storage and handling of liquefied petroleum gases;~~

~~(ii) Sulfur and finely divided metals in the same building except when such storage complies with this chapter and NFPA standard 495, Explosives Materials Code;~~

~~(iii) Explosives and blasting agents in the same building except on the premises of manufacturers, distributors, and user of explosives or blasting agents;~~

~~(iv) When explosives or blasting agents are stored in separate buildings, other than on the approval of manufacturers, distributors, and user, they must be separated from the ammonium nitrate by the distances and/or barricades specified in Table H-22 or a minimum of fifty feet (15.2 m);~~

~~(v) With flammable liquids, such as gasoline, kerosene, solvents, and light fuel oils on the premises except when such storage conforms~~

~~to WAC 296-24-330, Flammable liquids, and when walls, sills or curbs are provided in accordance with WAC 296-52-69095, Ammonium nitrate.~~

~~(2) Contaminants must be stored in a separate building from ammonium nitrate or be separated by an approved firewall of not less that one-hour fire resistance rating which should extend to the underside of the roof. Alternatively, the contaminants may be separated by a minimum of thirty feet (9.1 m), instead of using walls. These contaminants are:~~

~~(a) Organic chemicals;~~

~~(b) Acids;~~

~~(c) Other corrosive materials;~~

~~(d) Materials that may require blasting during processing or handling;~~

~~(e) Compressed flammable gases;~~

~~(f) Flammable and combustible materials;~~

~~(g) Other substances including:~~

~~Animal fats~~	~~Baled cotton~~	~~Baled rags~~	~~Baled scrap paper~~
~~Bleaching powder~~	~~Burlap or cotton bags~~	~~Caustic soda~~	~~Coal~~
~~Coke~~	~~Charcoal~~	~~Cork~~	~~Camphor~~
~~Excelsior~~	~~Fibers of any kind~~	~~Fish oil~~	~~Fish meal~~
~~Foam rubber~~	~~Hay~~	~~Lubricating oil~~	~~Linseed oil~~
~~Other oxidizable or drying oils~~	~~Naphthalene~~	~~Oakum~~	~~Oiled clothing~~
~~Oiled paper~~	~~Oiled textiles~~	~~Paint~~	~~Straw~~
~~Sawdust~~	~~Wood shavings~~	~~Vegetable oil~~	

~~(3) Housekeeping requirements must have:~~

~~(a) Electrical installations, which meet the requirements of chapter 296-24 WAC, Part L, Electrical, and WAC 296-800-280, Basic electrical rules, for ordinary locations and be designed to minimize damage from corrosion;~~

~~(b) Adequate lightning protections in areas where lightning storms are prevalent (see NFPA 78-1992, Lightning Protection Code);~~

~~(c) Procedures to prevent unauthorized personnel from entering the ammonium nitrate storage area.~~

~~(4) Fire protection must provide:~~

~~(a) Water supplies and fire hydrants;~~

~~(b) Suitable fire control devices, such as a small hose or portable fire extinguishers, throughout the warehouse and in the loading/unloading areas. These devices must comply with the requirements of WAC 296-800-300, Portable fire extinguishers, and WAC 296-24-602, Standpipe and hose systems;~~

~~(c) Approved sprinkler systems installed according to WAC 296-24-607, Automatic sprinkler systems;~~

~~(d) Two thousand five hundred tons (two thousand two hundred seventy metric) or less of bagged ammonium nitrate may be stored in a structure that does not have an automatic sprinkler system.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-69095, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060 and 29 C.F.R. 1910 Subpart Z. WSR 14-07-086, § 296-52-69095, filed 3/18/14, effective 5/1/14. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 03-06-073, § 296-52-69095, filed 3/4/03, effective 8/1/03. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-69095, filed 1/23/02, effective 3/1/02.]

((~~QUANTITY AND DISTANCE TABLES~~))

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-69105 ((~~**Table H-20—Table of distances for storage of explosives.**~~)) **Reserved.** ((~~**Table H-20**~~

~~**Table of Distances for Storage of Explosives**~~

~~Quantity of Explosive~~		~~Distances (in Feet)~~					
~~(In Pounds)~~		~~Inhabited Buildings~~		~~Public Highways with Traffic Volume 3,000 or Less Vehicles Per Day~~		~~Passenger Railways and Public Highways: With Traffic Volume of More Than 3,000 Vehicles Per Day~~	
~~Over~~	~~Not Over~~	~~Barricaded~~	~~Unbarricaded~~	~~Barricaded~~	~~Unbarricaded~~	~~Barricaded~~	~~Unbarricaded~~
~~0~~	~~5~~	~~70~~	~~140~~	~~30~~	~~60~~	~~51~~	~~102~~
~~5~~	~~10~~	~~90~~	~~180~~	~~35~~	~~70~~	~~64~~	~~128~~
~~10~~	~~20~~	~~110~~	~~220~~	~~45~~	~~90~~	~~81~~	~~162~~
~~20~~	~~30~~	~~125~~	~~250~~	~~50~~	~~100~~	~~93~~	~~186~~
~~30~~	~~40~~	~~140~~	~~280~~	~~55~~	~~110~~	~~103~~	~~206~~
~~40~~	~~50~~	~~150~~	~~300~~	~~60~~	~~120~~	~~110~~	~~220~~

Quantity of Explosive		Distances (in Feet)					
(In Pounds)		Inhabited Buildings		Public Highways with Traffic Volume 3,000 or Less Vehicles Per Day		Passenger Railways and Public Highways: With Traffic Volume of More Than 3,000 Vehicles Per Day	
Over	Not Over	Barricaded	Unbarricaded	Barricaded	Unbarricaded	Barricaded	Unbarricaded
50	75	170	340	70	140	127	254
75	100	190	380	75	150	139	278
100	125	200	400	80	160	150	300
125	150	215	430	85	170	159	318
150	200	235	470	95	190	175	350
200	250	255	510	105	210	189	378
250	300	270	540	110	220	201	402
300	400	295	599	120	240	221	442
400	500	320	640	130	260	238	476
500	600	340	680	135	270	253	506
600	700	355	710	145	290	266	532
700	800	375	750	150	300	278	556
800	900	390	780	155	310	289	578
900	1,000	400	800	160	320	300	600
1,000	1,200	425	850	165	330	318	636
1,200	1,400	450	900	170	340	336	672
1,400	1,600	470	940	175	350	351	702
1,600	1,800	490	980	180	360	366	732
1,800	2,000	505	1,010	185	370	378	756
2,000	2,500	545	1,090	190	380	408	816
2,500	3,000	580	1,160	195	390	432	864
3,000	4,000	635	1,270	210	420	474	948
4,000	5,000	685	1,370	225	450	513	1,026
5,000	6,000	730	1,460	235	470	546	1,092
6,000	7,000	770	1,540	245	490	573	1,146
7,000	8,000	800	1,600	250	500	600	1,200
8,000	9,000	835	1,670	255	510	624	1,248
9,000	10,000	865	1,730	260	520	645	1,290
10,000	12,000	875	1,750	270	540	687	1,374
12,000	14,000	885	1,770	275	550	723	1,446
14,000	16,000	900	1,800	280	560	756	1,512
16,000	18,000	940	1,880	285	570	786	1,572
18,000	20,000	975	1,950	290	580	813	1,626
20,000	25,000	1,055	2,000	315	630	876	1,752
25,000	30,000	1,130	2,000	340	680	933	1,866
30,000	35,000	1,205	2,000	360	720	931	1,962
35,000	40,000	1,275	2,000	380	760	1,026	2,000
40,000	45,000	1,340	2,000	400	800	1,068	2,000
45,000	50,000	1,400	2,000	420	840	1,104	2,000
50,000	55,000	1,460	2,000	440	880	1,140	2,000
55,000	60,000	1,515	2,000	455	910	1,173	2,000
60,000	65,000	1,565	2,000	470	940	1,206	2,000
65,000	70,000	1,610	2,000	485	970	1,236	2,000
70,000	75,000	1,655	2,000	500	1,000	1,263	2,000
75,000	80,000	1,695	2,000	510	1,020	1,293	2,000
80,000	85,000	1,730	2,000	520	1,040	1,317	2,000
85,000	90,000	1,760	2,000	530	1,060	1,344	2,000

Quantity of Explosive (In Pounds)		Distances (in Feet)					
		Inhabited Buildings		Public Highways with Traffic Volume 3,000 or Less Vehicles Per Day		Passenger Railways and Public Highways: With Traffic Volume of More Than 3,000 Vehicles Per Day	
Over	Not Over	Barricaded	Unbarricaded	Barricaded	Unbarricaded	Barricaded	Unbarricaded
90,000	95,000	1,790	2,000	540	1,080	1,368	2,000
95,000	100,000	1,815	2,000	545	1,090	1,392	2,000
100,000	110,000	1,835	2,000	550	1,100	1,437	2,000
110,000	120,000	1,855	2,000	555	1,110	1,479	2,000
120,000	130,000	1,875	2,000	560	1,120	1,521	2,000
130,000	140,000	1,890	2,000	565	1,130	1,557	2,000
140,000	150,000	1,900	2,000	570	1,140	1,593	2,000
150,000	160,000	1,935	2,000	580	1,160	1,629	2,000
160,000	170,000	1,965	2,000	590	1,180	1,662	2,000
170,000	180,000	1,990	2,000	600	1,200	1,695	2,000
180,000	190,000	2,010	2,010	605	1,210	1,725	2,000
190,000	200,000	2,030	2,030	610	1,220	1,755	2,000
200,000	210,000	2,055	2,055	620	1,240	1,782	2,000
210,000	230,000	2,100	2,100	635	1,270	1,836	2,000
230,000	250,000	2,155	2,155	650	1,300	1,890	2,000
250,000	275,000	2,215	2,215	670	1,340	1,950	2,000
275,000	300,000	2,275	2,275	690	1,380	2,000	2,000

Note 1: Terms used in Table H-20 are found in WAC 296-52-60130, Definitions.

Note 2: Source of table data is BATF (6/90) 55.218.)))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-69105, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-69110 ((**Table H-21—Quantity and distance table for separation between magazines.**)) **Reserved.**

((**Note:** This table applies to the permanent storage of commercial explosives only. It does not apply to:

1. Explosives handling;

2. Explosives transportation;

3. Temporary storage of explosives;

4. Bombs, projectiles, or other heavily encased explosives.

Magazines containing detonators and electric detonators must be separated from:

(1) Other magazines with similar contents; or

(2) Magazines containing explosives.

Note: Definitions of barricade including artificial and natural barricade can be found in WAC 296-52-60130, Definitions.

Table H-21

QUANTITY AND DISTANCE TABLE FOR SEPARATION BETWEEN MAGAZINES CONTAINING EXPLOSIVES		Separation Distance in Feet Between Magazines	
Pounds Over	Pounds Not Over	Not Barricaded	Barricaded
2	5	12	6
5	10	16	8
10	20	20	10
20	30	22	11
30	40	24	12
40	50	28	14
50	75	30	15
75	100	32	16
100	125	36	18
125	150	38	19
150	200	42	21
200	250	46	23
250	300	48	24
300	400	54	27
400	500	58	29
500	600	62	31
600	700	64	32
700	800	66	33
800	900	70	35
900	1,000	72	36
1,000	1,200	78	39
1,200	1,400	82	41
1,400	1,600	86	43
1,600	1,800	88	44

QUANTITY AND DISTANCE TABLE FOR SEPARATION BETWEEN MAGAZINES CONTAINING EXPLOSIVES		Separation Distance in Feet Between Magazines	
Pounds Over	Pounds Not Over	Not Barricaded	Barricaded
1,800	2,000	90	45
2,000	2,500	98	49
2,500	3,000	104	52
3,000	4,000	116	58
4,000	5,000	122	61
5,000	6,000	130	65
6,000	7,000	136	68
7,000	8,000	144	72
8,000	9,000	150	75
9,000	10,000	156	78
10,000	12,000	164	82
12,000	14,000	174	87
14,000	16,000	180	90
16,000	18,000	188	94
18,000	20,000	196	98
20,000	25,000	210	105
25,000	30,000	224	112
30,000	35,000	238	119
35,000	40,000	248	124
40,000	45,000	258	129
45,000	50,000	270	135
50,000	55,000	280	140
55,000	60,000	290	145
60,000	65,000	300	150
65,000	70,000	310	155
70,000	75,000	320	160
75,000	80,000	330	165
80,000	85,000	340	170
85,000	90,000	350	175
90,000	95,000	360	180
95,000	100,000	370	185
100,000	110,000	380	195
110,000	120,000	410	205
120,000	130,000	430	215
130,000	140,000	450	225

~~QUANTITY AND DISTANCE TABLE FOR SEPARATION BETWEEN MAGAZINES CONTAINING EXPLOSIVES~~		~~Separation Distance in Feet Between Magazines~~	
~~Pounds Over~~	~~Pounds Not Over~~	~~Not Barricaded~~	~~Barricaded~~
~~140,000~~	~~150,000~~	~~470~~	~~235~~
~~150,000~~	~~160,000~~	~~490~~	~~245~~
~~160,000~~	~~170,000~~	~~510~~	~~255~~
~~170,000~~	~~180,000~~	~~530~~	~~265~~
~~180,000~~	~~190,000~~	~~550~~	~~275~~
~~190,000~~	~~200,000~~	~~570~~	~~285~~
~~200,000~~	~~210,000~~	~~590~~	~~295~~
~~210,000~~	~~230,000~~	~~630~~	~~315~~
~~230,000~~	~~250,000~~	~~670~~	~~335~~
~~250,000~~	~~275,000~~	~~720~~	~~360~~
~~275,000~~	~~300,000~~	~~770~~	~~385~~

~~Note:~~ ~~With site-specific department approval, a stand of mature timber may qualify as a natural barricade. The timber must be dense enough so the area requiring protection cannot be seen from the magazine when the trees are bare of leaves.~~)))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-69110, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-69110, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-69115 ((~~**Table H-22—Separation distances of ammonium nitrate and blasting agents from explosives or blasting agents.**~~)) **Reserved.** ((~~**Table H-22**~~

TABLE OF SEPARATION DISTANCES OF AMMONIUM NITRATE AND BLASTING AGENTS

FROM EXPLOSIVES OR BLASTING AGENTS[1]

Donor weight		Minimum separation distance of receptor when barricaded[2] (ft.)		Minimum thickness of artificial barricades[5] (in.)
Pounds over	Pounds not over	Ammonium nitrate[3]	Blasting agent[4]	
	100	3	11	12
100	300	4	14	12
300	600	5	18	12
600	1,000	6	22	12
1,000	1,600	7	25	12
1,600	2,000	8	29	12
2,000	3,000	9	32	15
3,000	4,000	10	36	15
4,000	6,000	11	40	15
6,000	8,000	12	43	20
8,000	10,000	13	47	20
10,000	12,000	14	50	20
12,000	16,000	15	54	25
16,000	20,000	16	58	25
20,000	25,000	18	65	25
25,000	30,000	19	68	30
30,000	35,000	20	72	30
35,000	40,000	21	76	30
40,000	45,000	22	79	35
45,000	50,000	23	83	35
50,000	55,000	24	86	35
55,000	60,000	25	90	35
60,000	70,000	26	94	40
70,000	80,000	28	101	40
80,000	90,000	30	108	40
90,000	100,000	32	115	40
100,000	120,000	34	122	50
120,000	140,000	37	133	50
140,000	160,000	40	144	50
160,000	180,000	44	158	50
180,000	200,000	48	173	50
200,000	220,000	52	187	60
220,000	250,000	56	202	60
250,000	275,000	60	216	60
275,000	300,000	64	230	60

Note 1: These distances apply to the separation of storage. Table H-20 must be used in determining separation distances from inhabited buildings, passenger railways, and public highways.

Note 2: When the ammonium nitrate and/or blasting agent is not barricaded, the distances shown in the table must be multiplied by six. These distances allow for the possibility of high velocity metal fragments from mixers, hoppers, truck bodies, sheet metal structures, metal containers, and the like which may enclose the "donor." When ammonium nitrate is stored in a bullet resistant magazine it is recommended explosives or where the storage is protected by a bullet resistant wall, distances, and barricade thickness in excess of those prescribed in Table H-20 are not required.

Note 3: The distances in the table apply to ammonium nitrate that passes the insensitivity test prescribed in the definition of ammonium nitrate fertilizer promulgated by the Fertilizer Institute, and ammonium nitrate failing to pass a test must be stored at separation distances determined by competent persons. (Definition and Test Procedures for Ammonium Nitrate Fertilizer, the Fertilizer Institute, formerly the National Plant Food Institute, November 1964.)

Note 4: These distances apply to nitro-carbo-nitrates and blasting agents, which pass the insensitivity test prescribed in the U.S. DOT regulations.

Note 5: Acceptable barricades include either natural or artificial barricades as defined in WAC 296-52-60130, Definitions.

Note 6: When the ammonium nitrate must be counted in determining the distances to be maintained from inhabited buildings, passenger railways, and public highways, it may be counted at one-half its actual weight because its blast effect is lower.

Note 7: Guide to use of table of recommended separation distances of ammonium nitrate and blasting agents from explosives or blasting agents.

(a) Sketch the location of all potential donors and acceptor materials together with the maximum amount of material to be allowed in the area. (Potential donors are high explosives, blasting agents, and combination of masses of detonating materials. Potential acceptors are high explosives, blasting agents, and ammonium nitrate.)

(b) Consider each donor mass in combination with each acceptor mass. If the masses are closer than table allowance, distances measured between nearest edges, the combination of masses becomes a new potential donor of weight equal to the total mass. When individual masses are considered as donors, distances to potential acceptors must be measured between edges. When combined masses within propagating distance of each other are considered as a donor, the appropriate distance to the edge of potential acceptors must be computed as a weighted distance from the combined masses:

(i) Calculation of weighted distance from combined masses:

Let M_2, M_3,... Mn be donor masses to be combined.

M_1 is a potential acceptor mass.

$D_{1,2}$ is distance from M_1 to M_2 (edge to edge).

$D_{1,3}$ is distance from M_1 to M_3 (edge to edge), etc.

To find weighted distance $D_{1(2,3...n)}$ from combined masses to M_1, add the products of the individual masses and distances and divide the total by the sum of the masses:

$$D_{1(2,3...n)} = \frac{M_2 \times D_{12} + M_3 \times D_{13} + M_n \times D_{1n}}{M_2 + M_3 + M_n}$$

Propagation is possible if either an individual donor mass is less than the tabulated distance from an acceptor or a combined mass is less than the weighted distance from an acceptor.

(c) When determining the distances separating highways, railroads, and inhabited buildings from potential explosions (as prescribed in Table H-20), the sum of all masses which may propagate (i.e., lie at distances less than prescribed in the table) from either individual or combined donor masses are included. However, the ammonium nitrate must be included, only 50 percent of its weight must be used because of its reduced blast effects. In applying Table H-21, distances from highways, railroads, and inhabited buildings, distances are measured from the nearest edge of potentially explodable material.

(d) When all or part of a potential acceptor comprises explosives Class A as defined in U.S. DOT regulations, storage in bullet resistant magazines is required. Safe distances to stores in bullet resistant magazines may be obtained from the intermagazine distances described in Table H-21.

~~(e) Barricades cannot have line of sight openings between potential donors and acceptors, which permit blast or missiles to move directly between masses.~~

~~(f) Good housekeeping practices must be maintained around any bin containing ammonium nitrate or blasting agent. This includes keeping weeds and other combustible materials cleared within twenty-five feet of the bin. Accumulation of spilled product on the ground must be prevented.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-69115, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-69120 ((~~**Table H-23 Quantity and distance tables for manufacturing buildings.**~~)) **Reserved.** ((~~Explosives manufacturing plants that have buildings and magazines, where workers are regularly employed, must meet the quantity and separation distance requirements of Table H-23, intraexplosives plant quantity and distance table.~~

~~(1) **Explosives manufacturing buildings.** Explosives manufacturing buildings must be located away from manufacturing and nonmanufacturing buildings as required by Table H-23.~~

~~(2) **Magazines.** Magazines must be located away from manufacturing and nonmanufacturing buildings as required by Table H-23.~~

~~**Table H-23**~~

~~EXPLOSIVES~~		~~Distance Feet~~
~~Pounds Over~~	~~Pounds Not Over~~	~~Separate Building or Within Substantial Dividing Walls~~
~~....~~	~~10~~	

EXPLOSIVES		Distance Feet
Pounds Over	Pounds Not Over	Separate Building or Within Substantial Dividing Walls
10	25	40
25	50	60
50	100	80
100	200	100
200	300	120
300	400	130
400	500	140
500	750	160
750	1,000	180
1,000	1,500	210
1,500	2,000	230
2,000	3,000	260
3,000	4,000	280
4,000	5,000	300
5,000	6,000	320
6,000	7,000	340
7,000	8,000	360
8,000	9,000	380
9,000	10,000	400
10,000	12,500	420
12,500	15,000	450
15,000	17,500	470
17,500	20,000	490
20,000	25,000	530
25,000	30,000	560
30,000	35,000	590
35,000	40,000	620
40,000	45,000	640
45,000	50,000	660
50,000	55,000	680
55,000	60,000	700
60,000	65,000	720
65,000	70,000	740
70,000	75,000	770
75,000	80,000	780

EXPLOSIVES		Distance Feet
Pounds Over	Pounds Not Over	Separate Building or Within Substantial Dividing Walls
80,000	85,000	790
85,000	90,000	800
90,000	95,000	820
95,000	100,000	830
100,000	125,000	900
125,000	150,000	950
150,000	175,000	1,000
175,000	200,000	1,050
200,000	225,000	1,100
225,000	250,000	1,150
250,000	275,000	1,200
275,000	300,000	1,250))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-69120, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-69125 ((**Table H-24-Low explosives.**)) **Reserved.** ((~~(1) Use Table H-24 for magazines that are restricted to:~~

~~(a) Division 1.2 or 1.3;~~

~~(b) Division 1.4, low explosives;~~

~~(c) Low explosives classified by BATF.~~

~~(2) Detonators cannot be stored with low explosives.~~

Table H-24

~~TABLE OF DISTANCES FOR STORAGE OF LOW EXPLOSIVES~~

~~Pounds~~		~~From inhabited building distance (feet)~~	~~From public railroad and highway distance (feet)~~	~~From above ground magazine (feet)~~
~~Over~~	~~Not Over~~			
~~0~~	~~1,000~~	~~75~~	~~75~~	~~50~~
~~1,000~~	~~5,000~~	~~115~~	~~115~~	~~75~~
~~5,000~~	~~10,000~~	~~150~~	~~150~~	~~100~~
~~10,000~~	~~20,000~~	~~190~~	~~190~~	~~125~~
~~20,000~~	~~30,000~~	~~215~~	~~215~~	~~145~~
~~30,000~~	~~40,000~~	~~235~~	~~235~~	~~155~~
~~40,000~~	~~50,000~~	~~250~~	~~250~~	~~165~~
~~50,000~~	~~60,000~~	~~260~~	~~260~~	~~175~~
~~60,000~~	~~70,000~~	~~270~~	~~270~~	~~185~~
~~70,000~~	~~80,000~~	~~280~~	~~280~~	~~190~~
~~80,000~~	~~90,000~~	~~295~~	~~295~~	~~195~~
~~90,000~~	~~100,000~~	~~300~~	~~300~~	~~200~~
~~100,000~~	~~200,000~~	~~375~~	~~375~~	~~250~~
~~200,000~~	~~300,000~~	~~450~~	~~450~~	~~300~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-69125, filed 8/1/17, effective 9/1/17; WSR 03-06-073, § 296-52-69125, filed 3/4/03, effective 8/1/03. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-69125, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 03-06-073, filed 3/4/03, effective 8/1/03)

WAC 296-52-69130 ((**~~Table of distances for the storage of display fireworks (except bulk salutes).~~**)) **Reserved.**

((~~Net weight of fireworks (pounds)~~	~~Distance between magazine and inhabited building, passenger railway, or public highway (feet)~~	~~Distance between magazine (feet)~~
~~0 1,000~~	~~150~~	~~100~~

((~~Net weight of fireworks (pounds)~~	~~Distance between magazine and inhabited building, passenger railway, or public highway (feet)~~	~~Distance between magazine (feet)~~
~~1,001-5,000~~	~~230~~	~~150~~
~~5,001-10,000~~	~~300~~	~~200~~
~~Above 10,000~~	~~Use Table H-20~~	

~~Note 1:~~ ~~The net weight is the weight of all pyrotechnic compositions, and explosive materials and fuse only.~~

~~Note 2:~~ ~~For the purposes of applying this table, the term magazine also includes fireworks shipping buildings for display fireworks.~~

~~Note 3:~~ ~~For fireworks storage magazines in use prior to (2000) the distances in this table may be halved if properly barricaded between the magazine and potential receptor sites.~~

~~Note 4:~~ ~~This table does not apply to the storage of bulk salutes. Use Table H-20 for storage of bulk salutes.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 03-06-073, § 296-52-69130, filed 3/4/03, effective 8/1/03.]

((~~PART F~~

~~MAGAZINE CONSTRUCTION~~))

PART G

COMMERCIAL CONSUMER

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-700 ((~~**Magazine construction.**~~)) **Reserved.**

((~~Construction of explosive storage magazines must comply with the requirements of this part and the Bureau of Alcohol, Tobacco, and Firearms (BATF) regulations.~~

~~**Note:** Construction requirements for blasting agent bulk storage bins are located in WAC 296-52-67140, Bulk storage bins.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-700, filed 1/23/02, effective 3/1/02.]

NEW SECTION

WAC 296-52-7000 General. These rules are intended to allow reasonable personal use of the consumer propellants, primers and binary exploding mixtures consistent with sporting purposes.

(1) All persons and entities not exempted in WAC 296-52-099 are subject to the restrictions listed below.

(2) The process safety management for storage, intraplant transportation and use during the manufacture of small arms ammunition, small arms primers, and smokeless powder will be evaluated for each manufacturer as required by WAC 296-52-24010.

(3) Items listed here will be treated as the following for calculation of storage according to Part E:

(a) Powders will be stored as low explosives.

(b) Primers will be stored and treated in the same manner as detonators.

[]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-70005 ((~~**Type 1 magazines: Permanent storage facilities.**~~)) **Reserved.** ((~~A Type 1 storage facility must be:~~

~~(1) A permanent structure such as:~~

~~(a) A building;~~

~~(b) An igloo;~~

~~(c) An army-type structure;~~

~~(d) A tunnel; or~~

~~(e) A dugout.~~

~~(2) Bullet resistant, fire resistant, weather resistant, theft resistant, and well ventilated.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-70005, filed 8/1/17, effective 9/1/17; WSR 05-08-110, § 296-52-70005, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-70005, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-70010 ((~~**Building construction for Type 1 magazines.**~~)) **Reserved.** ((~~(1) All building-type storage facilities must:~~

~~(a) Be constructed of masonry, wood, metal, or a combination of these materials;~~

~~(b) Have no openings except for entrances and ventilation;~~

~~(c) Have the ground around the facility slope away for drainage.~~

~~(2)~~ ~~**Wall construction.**~~

~~(a) **Masonry wall construction.** Masonry wall construction must:~~

~~(i) Consist of brick, concrete, tile, cement block, or cinder block;~~

~~(ii) Be at least eight inches thick.~~

~~(b) **Hollow masonry construction.** Hollow masonry construction must:~~

~~(i) Have all hollow spaces filled with well tamped coarse dry sand; or~~

~~(ii) Have weak concrete (a mixture of one part cement to eight parts sand with enough water to dampen the mixture) while tamping in place; and~~

~~(iii) Have interior walls covered with a nonsparking material.~~

~~(c) **Fabricated metal wall construction.**~~

~~(i) Metal wall construction must be securely fastened to a metal framework and consist of one of the following types of metal:~~

~~(A) Sectional sheets of steel (at least number 14 gauge); or~~

~~(B) Aluminum (at least number 14 gauge).~~

~~(ii) Metal wall construction must:~~

~~(A) Be lined with brick, solid cement blocks, and hardwood at least four inches thick or material of equivalent strength;~~

~~(B) Have a minimum of six-inch sand fill between interior and exterior walls;~~

~~(C) Have interior walls constructed of or covered with a nonsparking material.~~

~~(d) **Wood frame wall construction.**~~

~~(i) Exterior wood walls must be covered with iron or aluminum at least number 26 gauge;~~

~~(ii) Inner walls, made of nonsparking materials must be constructed with a space:~~

~~(A) A minimum of six inches between the outer and inner walls;~~ ~~and~~

~~(B) Filled with coarse dry sand or weak concrete.~~

~~(3) **Floors.** Floors must be:~~

~~(a) Constructed of a nonsparking material.~~

~~(b) Strong enough to hold the weight of the maximum quantity to be stored.~~

~~(4) **Foundation.**~~

~~(a) Foundations must be constructed of brick, concrete, cement block, stone, or wood posts.~~

~~(b) If piers or posts are used instead of a continuous foundation, the space under the building must be enclosed with metal.~~

~~(5) **Roof.**~~

~~(a) Roofs must be covered with no less than number 26 gauge iron or aluminum fastened to a 7/8-inch sheathing, except for buildings with fabricated metal roofs.~~

~~(b) If it is possible for a bullet to be fired directly through the roof at such an angle that it would strike a point below the top of the inner walls, storage facilities must be protected by one of the following two methods:~~

~~(i) A sand tray must be:~~

~~(A) Located at the top of the inner wall covering the entire ceiling area, except the area necessary for ventilation;~~

~~(B) Lined with a layer of building paper;~~

~~(C) Filled with at least four inches of coarse dry sand.~~

~~(ii) A fabricated metal roof must be constructed of 3/16-inch plate steel lined with four inches of hardwood or material of equivalent strength. For each additional 1/16-inch of plate steel, the hardwood or material of equivalent strength lining may be decreased one inch.~~

~~(6) **Doors and hinges.**~~

~~(a) All doors must be constructed of 1/4-inch plate steel and lined with three inches of hardwood or material of equivalent strength.~~

~~(b) Hinges and hasps must be installed so they cannot be removed when the doors are closed and locked by:~~

~~(i) Welding;~~

~~(ii) Riveting; or~~

~~(iii) Bolting nuts on the inside of the door.~~

~~(7) **Locks.**~~

~~(a) Each door must be equipped with:~~

~~(i) Two mortise locks;~~

~~(ii) Two padlocks fastened in separate hasps and staples;~~

~~(iii) A combination of a mortise lock and a padlock;~~

~~(iv) A mortise lock that requires two keys to open; or~~

~~(v) A three-point lock.~~

~~(b) Padlocks must:~~

~~(i) Have a minimum of five tumblers;~~

~~(ii) Have a case hardened shackle at least 3/8 inches in diameter;~~

~~(iii) Be protected with a minimum of 1/4-inch steel hoods, constructed to prevent sawing or lever action on the locks, hasps, and staples.~~

~~**Note:** These requirements do not apply to magazine doors that are adequately secured on the inside by means of a bolt, lock, or bar that cannot be operated from the outside.~~

~~(8) **Ventilation.**~~

~~(a) A two-inch air space must be left around ceilings and the perimeter of floors, except in doorways;~~

~~(b) Foundation ventilators must be at least four inches by six inches;~~

~~(c) Vents in the foundation, roof, or gables must be screened and offset.~~

~~(9) **Exposed metal.**~~

~~(a) Sparking metal construction cannot be exposed below the tops of walls in storage facilities;~~

~~(b) All nails must be blind nailed, countersunk, or nonsparking.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-70010, filed 8/1/17, effective 9/1/17; WSR 06-19-074, § 296-52-70010, filed 9/19/06, effective 12/1/06; WSR 05-08-110, § 296-52-70010, filed 4/5/05, effective 6/1/05; WSR 03-06-073, § 296-52-70010, filed 3/4/03, effective 8/1/03.

Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-70010, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-70015 ((~~**Igloos, army-type structures, tunnels, and dugouts.**~~)) **Reserved.** ((~~These storage facilities must:~~

~~(1) Be constructed of reinforced concrete, masonry, metal, or a combination of these materials.~~

~~(2) Have an earth mound covering of at least twenty-four inches on the top, sides, and rear unless the magazine meets the requirements of WAC 296-52-70010 (4)(b), Building construction for roofs.~~

~~(3) Have interior walls and floors covered with a nonsparking material.~~

~~(4) Be constructed according to the requirements of WAC 296-52-70005, Type 1 magazines: Permanent storage facilities, through WAC 296-52-70060 construction.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-70015, filed 8/1/17, effective 9/1/17; WSR 05-08-110, § 296-52-70015, filed 4/5/05, effective 6/1/05.

Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-70015, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-70020 ((~~**Type 2 magazines: Portable field storage.**~~)) **Reserved.** ((~~A Type 2 storage facility must:~~

~~(1) Be a box, trailer, semi-trailer, or other mobile facility. When an unattended vehicular magazine is used, the wheels must be removed or it must be effectively immobilized by kingpin locking devices or other methods approved by the department.~~

~~(2) Be bullet resistant, fire resistant, weather resistant, theft resistant, and well ventilated.~~

~~(3) Be a minimum of one cubic yard.~~

~~(4) Be supported to prevent direct contact with the ground.~~

~~(5) Have the ground around the magazine slope away for drainage or provide for other adequate drainage.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-70020, filed 8/1/17, effective 9/1/17; WSR 05-08-110, § 296-52-70020, filed 4/5/05, effective 6/1/05.

Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-70020, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-70025 ((~~**Construction for Type 2 magazines.**~~)) **Reserved.** ((~~(1) **Exterior, doors, and top openings.**~~

~~(a) The exterior and doors must be constructed of at least 1/4-inch steel and lined with a minimum of three-inch hardwood.~~

~~(b) Magazines with top openings must have lids with water resistant seals or lids that overlap the sides by a minimum of one inch when closed.~~

~~(2)~~ **Hinges and hasps.** ~~Hinges and hasps must be installed so they cannot be removed when the doors are closed and locked by:~~

~~(a) Welding;~~

~~(b) Riveting; or~~

~~(c) Bolting nuts on the inside of the door.~~

~~(3)~~ **Locks.**

~~(a) Each door must be equipped with:~~

~~(i) Two mortise locks;~~

~~(ii) Two padlocks fastened in separate hasps and staples;~~

~~(iii) A combination of mortise lock and a padlock;~~

~~(iv) A mortise lock that requires two keys to open; or~~

~~(v) A three-point lock.~~

~~(b) Padlocks must have:~~

~~(i) A minimum of five tumblers and a case hardened shackle with a minimum of 3/8-inch diameter;~~

~~(ii) A minimum of 1/4-inch steel hoods constructed to prevent sawing or lever action on the locks, hasps, and staples.~~

~~**Note:** These requirements do not apply to magazine doors that are adequately secured on the inside by means of a bolt, lock, or bar that cannot be operated from the outside.~~

~~(4) **Ventilation.**~~

~~(a) A two-inch air space must be left around ceilings and the perimeter of floors, except at doorways;~~

~~(b) Foundation ventilators must be at least four inches by six inches;~~

~~(c) Vents in the foundation, roof, or gables must be screened and offset.~~

~~(5) **Exposed metal.**~~

~~(a) Sparking metal cannot be exposed below the top of walls in the storage facilities;~~

~~(b) All nails must be blind nailed, countersunk, or nonsparking.~~

Note: The following are nonmandatory construction alternatives for magazine exteriors:
1. All steel and wood dimensions shown are actual thickness;
2. The manufacturer's represented thickness may be used to meet the concrete block and brick dimensions.

3/16

(c) 3/16-inch steel lined with an interior of 4-inch hardwood.

(d) 3/16-inch steel lined with:

(i) An interior of 7 inches of softwood; or

(ii) 6 3/4 inches of plywood.

(e) 3/16-inch steel lined with:

(i) An intermediate layer of 3-inch hardwood; and

(ii) An interior lining of 3/4-inch plywood.

1/8

(f) 1/8-inch steel lined with an interior of 5-inch hardwood.

(g) 1/8-inch steel lined with an interior of 9-inch softwood.

(h) 1/8-inch steel lined with:

(i) An intermediate layer of 4-inch hardwood; and

(ii) An interior lining of 3/4-inch plywood.

(i) Reserved.

(j) 1/8-inch steel lined with:

(i) A first intermediate layer of 3/4-inch plywood;

~~(ii) A second intermediate layer of 3 5/8 inches well-tamped dry sand; or~~

~~(iii) Sand/cement mixture.~~

~~(6) An interior lining of 3/4-inch plywood.~~

~~(a) 5/8-inch steel lined with an interior of any type of nonsparking material.~~

~~(b) 1/2-inch steel lined with an interior of at least 3/8-inch plywood.~~

~~(c) 3/8-inch steel lined with an interior of 2-inch hardwood.~~

~~(d) 3/8-inch steel lined with an interior of:~~

~~(i) 3 inches softwood; or~~

~~(ii) 2 1/4 inches of plywood.~~

~~(e) 1/4-inch steel lined with:~~

~~(i) An interior of 5 inches of softwood; or~~

~~(ii) 5 1/4 inches of plywood.~~

~~(f) Any type of structurally sound fire resistant material lined with:~~

~~(i) An intermediate layer of 4-inch solid concrete block; or~~

~~(ii) 4-inch solid brick or concrete; and~~

~~(iii) An interior lining of 1/2-inch plywood placed securely against the masonry lining.~~

~~(g) Standard 8-inch concrete block with voids filled with well tamped sand/cement mixture.~~

~~(h) Standard 8-inch solid brick.~~

~~(i) Reserved.~~

~~(j) Any type of structurally sound fire resistant material lined with an intermediate 6-inch space filled with:~~

~~(i) Well tamped dry sand; or~~

~~(ii) Well tamped sand/cement mixture.~~

~~(k) Any type of fire resistant material lined with:~~

~~(i) A first intermediate layer of 3/4 inch plywood;~~

~~(ii) A second intermediate layer of 3 5/8-inch well tamped dry sand; or~~

~~(iii) Sand/cement mixture;~~

~~(iv) A third intermediate layer of 3/4-inch plywood;~~

~~(v) A fourth intermediate layer of 2-inch hardwood; or~~

~~(vi) 14 gauge steel and an interior lining of 3/4-inch plywood;~~

~~(vii) 8-inch thick solid concrete.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-70025, filed 8/1/17, effective 9/1/17; WSR 05-08-110, § 296-52-70025, filed 4/5/05, effective 6/1/05.

Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-70025, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-70030 ((~~**Type 3 magazines: Indoor storage facilities.**~~)) **Reserved.** ((~~(1) Detonators in quantities of one thousand or less;~~

~~(2) Ammonium perchlorate rocket motors in 62.5 gram amounts or greater, but not to exceed fifty pounds in total weight of explosives;~~ ~~or~~

~~(3) Diversionary devices intended for law enforcement use only, but not to exceed fifty pounds in total weight of explosives.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-70030, filed 8/1/17, effective 9/1/17; WSR 05-08-110, § 296-52-70030, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-70030, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-70035 ((~~**Storage facilities for detonators.**~~)) **Reserved.** ((~~Storage facilities for detonators in quantities of one thousand or less:~~

~~(1) Must be fire resistant and theft resistant;~~

~~(2) Must be locked in an uninhabited building;~~

~~(3) May be less than one cubic yard;~~

~~(4) Must be painted red and have an identification label in case of fire.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-70035, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-70035, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 05-08-110, filed 4/5/05, effective 6/1/05)

WAC 296-52-70040 ((~~**Construction for Type 3 magazines.**~~)) **Reserved.** ((~~(1) Sides, bottoms, and covers must be constructed with a minimum of number 12 gauge metal and lined with a nonsparking material.~~

~~(2) Hinges and hasps must be attached so they cannot be removed from the outside.~~

~~(3) One steel padlock, which does not need to be protected by a steel hood, having a minimum of five tumblers and a case hardened shackle of a minimum of 3/8 inch diameter is sufficient for locking purposes.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 05-08-110, § 296-52-70040, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-70040, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-70045 ((~~**Type 4 magazines: Blasting agent, low explosive, or nonmass detonating detonator storage facilities.**~~)) **Reserved.** ((~~A Type 4 storage facility must:~~

~~(1) Be a building, an igloo, an army-type structure, a tunnel, a dugout, a box, a trailer, semi-trailer, or other mobile facility;~~

~~(2) Be fire resistant, weather resistant, and theft resistant;~~

~~(3) Have the ground around the facility slope away for drainage;~~

~~(4) Have the wheels removed or effectively immobilized by kingpin locking devices or other methods approved by the department, when an unattended vehicular magazine is used.~~

~~**Note:** Test results show that electric detonators are not affected by sympathetic detonation. Therefore, a Type 4 storage facility meets the necessary requirements for storage of electric detonators.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-70045, filed 8/1/17, effective 9/1/17; WSR 06-19-074, § 296-52-70045, filed 9/19/06, effective 12/1/06; WSR 05-08-110, § 296-52-70045, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-70045, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-70050 ((~~**Construction for Type 4 magazines.**~~)) **Reserved.** ((~~(1) These magazines must be constructed of masonry, metal covered wood, fabricated metal, or a combination of these materials.~~

~~(2) **Foundations.** Foundations must be constructed of:~~

~~(a) Brick;~~

~~(b) Concrete;~~

~~(c) Cement block;~~

~~(d) Stone;~~

~~(e) Metal; or~~

~~(f) Wood posts.~~

~~(3) The space under the building must be enclosed with fire resistant material, if piers or posts replace continuous foundation.~~

~~(4) The walls and floors must be made or covered with a nonsparking material or lattice work.~~

~~(5) Doors must be metal or solid wood covered with metal.~~

~~(6) Hinges and hasps must be installed so they cannot be removed when the doors are closed and locked by:~~

~~(a) Welding;~~

~~(b) Riveting; or~~

~~(c) Bolting nuts on the inside of the door.~~

~~(7) **Locks.**~~

~~(a) Each door must be equipped with:~~

~~(i) Two mortise locks;~~

~~(ii) Two padlocks fastened in separate hasps and staples;~~

~~(iii) A combination of a mortise lock and a padlock;~~

~~(iv) A mortise lock that requires two keys to open; or~~

~~(v) A three-point lock.~~

~~(b) Padlocks must:~~

~~(i) Have a minimum of five tumblers;~~

~~(ii) Have a case hardened shackle of a minimum of 3/8-inch diameter;~~

~~(iii) Be protected with a minimum of 1/4-inch steel hoods constructed to prevent sawing or lever action on the locks, hasps, and staples.~~

~~Note:~~ ~~These requirements do not apply to magazine doors that are adequately secured on the inside by means of a bolt, lock, or bar that cannot be operated from the outside.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-70050, filed 8/1/17, effective 9/1/17; WSR 05-08-110, § 296-52-70050, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-70050, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-70055 ((~~**Type 5 magazines: Blasting agent storage facilities.**~~)) **Reserved.** ((~~A Type 5 storage facility must:~~

~~(1) Be a building, an igloo, an army-type structure, a tunnel, a dugout, a box, or a trailer, semi-trailer, or other mobile facility;~~

~~(2) Be weather resistant and theft resistant;~~

~~(3) Have the ground around the facility slope away for drainage;~~

~~(4) Have the wheels removed or be effectively immobilized by kingpin locking devices or other methods approved by the department, when the unattended vehicular magazine is used.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-70055, filed 8/1/17, effective 9/1/17; WSR 05-08-110, § 296-52-70055, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-70055, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-70060 ((~~**Construction for Type 5 magazines.**~~))

Reserved. ((~~(1) Doors must be constructed of solid wood or metal.~~

~~(2) Hinges and hasps must be installed so they cannot be removed when the doors are closed and locked by:~~

~~(a) Welding;~~

~~(b) Riveting; or~~

~~(c) Bolting nuts on the inside of the door.~~

~~(3) **Locks.**~~

~~(a) Each door must be equipped with:~~

~~(i) Two mortise locks;~~

~~(ii) Two padlocks fastened in separate hasps and staples;~~

~~(iii) A combination of a mortise lock and a padlock;~~

~~(iv) A mortise lock that requires two keys to open; or~~

~~(v) A three-point lock.~~

~~(b) Padlocks must have:~~

~~(i) A minimum of five tumblers;~~

~~(ii) A case hardened shackle of a minimum of 3/8-inch diameter;~~

~~(iii) Padlocks must be protected with a minimum of 1/4-inch steel hoods constructed to prevent sawing or lever action on the locks, hasps, and staples.~~

~~**Note:** Trailers, semi-trailers, and similar vehicular magazines. Each door may be locked with one 3/8-inch diameter steel padlock and does not need to be protected by a steel hood, if the door hinges and lock hasp are securely fastened to the magazine and to the doorframe. These~~

~~requirements do not apply to magazine doors that are adequately secured on the inside by means of a bolt, lock, or bar that cannot be operated from the outside.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-70060, filed 8/1/17, effective 9/1/17; WSR 05-08-110, § 296-52-70060, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-70060, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-70065 ((~~**Explosives day box.**~~)) **Reserved.** ((~~(1) A day box for explosives must:~~

~~(a) Be fire, weather, and theft resistant;~~

~~(b) Be used in a manner that safely separates detonators from other explosives;~~

~~(c) Be constructed of a minimum of number 12 gauge (.1046 inches) steel;~~

~~(d) Be lined with at least either 1/2-inch plywood or 1/2-inch masonite-type hardboard;~~

~~(e) Have doors that overlap the sides by a minimum of one inch;~~

~~(f) Have appropriate ground slope for drainage.~~

~~(2) Hinges and hasps must be attached by:~~

~~(a) Welding;~~

~~(b) Riveting; or~~

~~(c) Bolting nuts on the inside of the door.~~

~~(3) One steel padlock, which does not need to be protected by a steel hood, having a minimum of five tumblers and a case hardened shackle of a minimum of 3/8-inch diameter is sufficient for locking purposes.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-70065, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-70065, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-70070 ((~~**Detonator day box.**~~)) **Reserved.** ((~~A detonator day box is a temporary storage facility for detonators in quantities of one thousand or less.~~

~~(1) **Construction materials.** Sides, bottoms, and covers must be:~~

~~(a) Constructed of number 12 gauge metal;~~

~~(b) Lined with a nonsparking material.~~

~~(2) Hinges and hasps must be attached by:~~

~~(a) Welding;~~

~~(b) Riveting; or~~

~~(c) Bolting nuts on the inside of the door.~~

~~(3) A single five tumbler lock must be used to lock the detonator day box.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-70070, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-70070, filed 1/23/02, effective 3/1/02.]

((~~HEATING SYSTEMS~~))

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-70080 ((~~**Magazine heating system requirements.**~~)) **Reserved.** ((~~Magazine heating system requirements and the following apply:~~

~~(1) **Heat sources.** Magazines requiring heat must be heated by either:~~

~~(a) Hot water radiant heating; or~~

~~(b) Air directed into the magazine building by hot water or low pressure steam (15 psig) coils located outside the magazine building.~~

~~(2) **Heating systems.** Magazine heating systems must meet the following requirements:~~

~~(a) The radiant heating coils in the building must be installed where explosive materials or their containers cannot touch the coils and air is free to circulate between the coils and the explosive material containers.~~

~~(b) The heating ducts must be installed where the hot air released from a duct is not directed toward the explosive material or containers.~~

~~(c) The heating device used in connection with a magazine must have controls, to prevent the building temperature from exceeding 130°F.~~

~~(d) The electric fan or pump used in the heating system for a magazine must be:~~

~~(i) Mounted outside;~~

~~(ii) Separate from the wall of the magazine;~~

~~(iii) Grounded.~~

~~(c) **Electric motor, device controls, and electric switch gear.**~~

~~(i) The electric fan motor and the controls for electrical heating devices used in heating water or steam must have overloads and disconnects which comply with the National Electrical Code, (NFPA Number 70-1992).~~

~~(ii) All electrical switch gear must be located a minimum distance of twenty-five feet from the magazine.~~

~~(f) **Water or steam heating source.**~~

~~(i) A heating source for water or steam must be separated from a magazine by a distance of at least:~~

~~(A) Twenty five feet when the heating source is electrical;~~

~~(B) Fifty feet when the heating source is fuel fired.~~

~~(ii) The area between a heating unit and a magazine cannot contain combustible materials.~~

~~(g) The storage of explosive material containers in the magazine must allow for uniform air circulation, so temperature uniformity can be maintained throughout the explosive materials.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-70080, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and

[49.17].050. WSR 02-03-125, § 296-52-70080, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-70085 ((~~**Lighting.**~~)) **Reserved.** ((~~(1) Battery activated safety lights or lanterns may be used in explosive storage magazines.~~

~~(2) **National Fire Protection Association (NFPA) Standards.**~~

~~(a) Electric lighting used in an explosive storage magazine must meet National Electric Code (NEC) standards (NFPA 70-1992) for all magazine conditions.~~

~~(b) All electrical switches must:~~

~~(i) Be located outside the magazine;~~

~~(ii) Meet NEC standards.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-70085, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-70085, filed 1/23/02, effective 3/1/02.]

((~~PART C~~

~~MISCELLANEOUS~~))

AMENDATORY SECTION (Amending WSR 03-06-073, filed 3/4/03, effective 8/1/03)

WAC 296-52-710 ((**~~Exemptions.~~**)) **Reserved.** ((~~These rules do not apply to in process storage and intraplant transportation during the manufacture of small arms ammunition, small arms primers, and smokeless powder.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 03-06-073, § 296-52-710, filed 3/4/03, effective 8/1/03. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-710, filed 1/23/02, effective 3/1/02.]

((~~AMMUNITION~~))

NEW SECTION

WAC 296-52-7100 Small arms ammunition. Small arms ammunition is exempt from regulation by this chapter with the following sections.

[]

NEW SECTION

WAC 296-52-71010 Storage. Quantity limits are not imposed in residences, warehouses, retail stores, and other general occupancy facilities, except those imposed by the limitations of the facility. Small arms ammunition also:

(1) Cannot be stored with Division 1.1, 1.2, or 1.3 explosives.

(2) Must be separated from flammable liquids, flammable solids (as classified in 49 C.F.R. Part 172), and oxidizing materials by a:

(a) Fire resistant wall with a one-hour rating; or

(b) Distance of 25 feet.

[]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-71015 ((~~**Quantity limits.**~~)) **Reserved.** ((~~Quantity limitations are not imposed on the storage of small arms ammunition in warehouses, retail stores, and other general occupancy facilities, except those imposed by the limitations of the storage facility.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-71015, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 05-08-110, filed 4/5/05, effective 6/1/05)

WAC 296-52-71020 ((~~**Storage with Division 1.1, 1.2, or 1.3 explosives.**~~)) **Transportation.** ((~~Small arms ammunition cannot be stored with Division 1.1, 1.2, or 1.3 explosives.~~)) Quantities weighing more than 50 pounds must be transported according to federal Department of Transportation (U.S. DOT) regulations.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 05-08-110, § 296-52-71020, filed 4/5/05, effective 6/1/05; WSR 03-06-073, § 296-52-71020, filed 3/4/03, effective 8/1/03. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-71020, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-71025 ((~~**Separation from flammable materials.**~~)) **Reserved.** ((~~Small arms ammunition must be separated from flammable~~

~~liquids, flammable solids (as classified in 49 C.F.R. Part 172), and oxidizing materials by a:~~

~~(1) Fire resistant wall with a one-hour rating; or~~

~~(2) Distance of twenty-five feet.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-71025, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-71025, filed 1/23/02, effective 3/1/02.]

((~~SMALL ARMS SMOKELESS POWDER~~))

NEW SECTION

WAC 296-52-71030 Manufacture. (1) Handloading by individuals, groups or entities in quantities of less than 10,000 rounds per week or 500,000 rounds per year is exempt.

(2) Assembly by individuals, groups or entities of 10,000 or more rounds per week or 500,000 rounds per year requires a manufacturer's license.

[]

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-71035 ((~~**Transportation.**~~)) **Reserved.** ((~~Quantities of small arms ammunition weighing more than fifty pounds must be transported according to federal Department of Transportation (U.S. DOT) regulations.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-71035, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-71040 ((~~**Shipping container.**~~)) **Reserved.** ((~~(1) Small arms smokeless powder (Division 1.2 or 1.3) must be packed, stored, and transported in U.S. DOT approved shipping containers.~~

~~(2) All smokeless powder must be stored in shipping containers made for smokeless powder (as required by 49 C.F.R. 173.93).~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-71040, filed 8/1/17, effective 9/1/17; WSR 03-06-073, § 296-52-71040, filed 3/4/03, effective 8/1/03.

Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-71040, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-71045 ((~~**Storage.**~~)) **Reserved.** ((~~(1) **Private residence or car.**~~

~~(a) Twenty-five pounds or less of small arms smokeless powder, no restrictions;~~

~~(b) Twenty-five to fifty pounds of small arms smokeless powder, they must be stored in a strong box or cabinet constructed of a minimum of 3/4-inch plywood or equivalent material, on all sides, top, and bottom.~~

~~(2) **Commercial stocks.**~~

~~(a) Over twenty pounds but not more than one hundred pounds of small arms smokeless powder must be stored in portable wooden boxes with a minimum of one-inch thick walls;~~

~~(b) Small arms smokeless powder not exceeding one hundred fifty pounds, must be stored in a nonportable storage cabinet with a minimum of one-inch thick wood walls.~~

~~(3) **Dealer's warehouse.**~~

~~(a) A dealer's warehouse cannot hold more then one hundred fifty pounds of small arms smokeless powder;~~

~~(b) Twenty to one hundred pounds of small arms smokeless powder must be stored in a minimum of one-inch thick portable or fixed wooden boxes.~~

~~(4) **Dealer's display.**~~

~~(a) The dealer's display cannot exceed more then seventy-five pounds of small arms smokeless powder;~~

~~(b) Small arms smokeless powder must be stored in one-pound containers.~~

~~(5) **Magazines.** Small arms smokeless powder that exceed one hundred fifty pounds must be stored in approved licensed magazines. See Storage licensing, WAC 296-52-660, Storage of explosive materials, WAC 296-52-690, and Magazine construction, WAC 296-52-700.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-71045, filed 8/1/17, effective 9/1/17; WSR 03-06-073, § 296-52-71045, filed 3/4/03, effective 8/1/03. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-71045, filed 1/23/02, effective 3/1/02.]

((~~SMALL ARMS AMMUNITION PRIMERS~~))

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-71055 ((~~**Shipping containers.**~~)) **Reserved.** ((~~Small arms ammunition primers must be packed, stored, and transported in U.S. DOT approved shipping containers.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-71055, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-71060 ((~~**Separation from flammable materials.**~~)) **Reserved.** ((~~Primers must be separate from flammable liquids, flammable solids, and oxidizing materials by a:~~

~~(1) Fire resistant wall with a one hour rating; or~~

~~(2) Distance of twenty-five feet.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-71060, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and

[49.17].050. WSR 02-03-125, § 296-52-71060, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-71065 ((~~**Storage.**~~)) **Reserved.** ((~~(1) **Private residence.** The maximum small arms ammunition primers permitted is ten thousand primers. No restrictions apply.~~

~~(2) **Private car.** The maximum small arms ammunition primers permitted is twenty-five thousand primers. No restrictions apply.~~

~~(3) **Dealer's display.** The maximum small arms ammunition primers permitted is ten thousand primers. No restrictions apply.~~

~~(4) **Dealer's warehouse.** The maximum small arms ammunition primers permitted is seven hundred fifty thousand primers.~~

~~(a) No more than one hundred thousand small arms ammunition primers may be stored in one stack;~~

~~(b) Stacks must be separated by at least fifteen feet.~~

~~(5) **Magazines.** If there are more than seven hundred fifty thousand small arms ammunition primers, they must be stored in approved licensed magazines (see Storage licensing, WAC 296-52-660,~~

~~Storage of explosive material, WAC 296-52-690, and Magazine construction, WAC 296-52-700).~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-71065, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-71065, filed 1/23/02, effective 3/1/02.]

((~~BLACK POWDER~~))

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-71075 ((~~**Shipping containers.**~~)) **Reserved.** ((~~Black powder, used in muzzleloading firearms must be packed, stored, and transported in U.S. DOT approved shipping containers.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-71075, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 05-08-110, filed 4/5/05, effective 6/1/05)

WAC 296-52-71080 ((~~**Storage.**~~)) **Reserved.** ((~~(1) **Private residence.** No more than five pounds of black powder is permitted. No restrictions apply.~~

~~(2) **Private car.** No more than five pounds of black powder is permitted. No restrictions apply.~~

~~(3) **Dealer's warehouse.** No more than twenty-five pounds of black powder is permitted. Black powder must be stored in an appropriate container or cabinet, which is securely locked.~~

~~(4) **Magazine.** Quantities of black powder, as used in muzzleloading firearms, in excess of twenty-five pounds must be stored in licensed magazines (see Storage licensing, WAC 296-52-660, Storage of explosive materials, WAC 296-52-690, and Magazine construction, WAC 296-52-700).~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 05-08-110, § 296-52-71080, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-71080, filed 1/23/02, effective 3/1/02.]

((~~EXPLOSIVES AT PIERS, RAILWAY STATIONS, RAILWAY CARS, AND VESSELS NOT OTHERWISE SPECIFIED IN THIS CHAPTER~~))

AMENDATORY SECTION (Amending WSR 02-03-125, filed 1/23/02, effective 3/1/02)

WAC 296-52-71090 ((~~**Delivery to carriers.**~~)) **Reserved.**

((~~Explosives delivered to any carrier must comply with U.S. DOT regulations. Explosives cannot be delivered to any carrier unless the packaging is in compliance with U.S. DOT regulations.~~))

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-71090, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-71095 ((~~**Hours of transfer.**~~)) **Reserved.** ((~~Explosives cannot be received between sunset and sunrise from any:~~

~~(1) Railway station;~~

~~(2) Truck terminal;~~

~~(3) Pier;~~

~~(4) Wharf;~~

~~(5) Harbor facility; or~~

~~(6) Airport terminal.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-71095, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-71095, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-71100 ((~~**Storage in route.**~~)) **Reserved.** ((~~Explosives waiting for delivery or further transit at a railway facility, truck terminal, pier, wharf, harbor facility, or airport terminal must be:~~

~~(1) Stored in a safe place;~~

~~(2) Isolated as much as practical;~~

~~(3) In a manner that allows quick and easy removal.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-71100, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-71100, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-71105 ((**~~Railway cars.~~**)) **Reserved.** ((~~(1) **Use of railway cars.**~~

~~Explosives cannot be kept in a railway car unless:~~

~~(a) An emergency exists;~~

~~(b) Permission has been granted by the local authority;~~

~~(c) The railway car, its contents, and methods of loading are in compliance with U.S. DOT regulations (49 C.F.R. Chapter 1).~~

~~(2) **Warning signs for railway cars not in transit.**~~

~~(a) Any railway car containing explosives must have warning signs attached to every side of the car when it is:~~

~~(i) Stopped in transit; or~~

~~(ii) At its designation; and~~

~~(iii) No longer considered in interstate commerce.~~

~~(b) Warning signs must read "EXPLOSIVES-HANDLE CAREFULLY-KEEP FIRE AWAY."~~

~~The letters must be:~~

~~(i) Red;~~

~~(ii) At least one and one-half inches high;~~

~~(iii) On a white background.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-71105, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-71105, filed 1/23/02, effective 3/1/02.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-720 ((~~**Appendix A, sample explosives-blasting ordinance for local jurisdictions, nonmandatory.**~~)) **Reserved.**

((~~**Explosives-blasting ordinance for local jurisdictions**~~

~~Be it ordained by the _____ (jurisdiction name).~~

~~**Section 1: Permit required.**~~

~~(1) A current and valid blasting permit issued by _____ (jurisdiction name) is required by companies or individuals who:~~

~~(a) Possess explosive materials (as defined by chapter 296-52 WAC, Safety standards for possessions and handling of explosives);~~

~~(b) Conduct an operation or activity requiring the use of explosive materials; or~~

~~(c) Perform, order, or supervise the loading and firing of high explosive materials.~~

~~(2) Anyone in _____ (jurisdiction name) who does not have a valid blasting permit cannot transport, sell, give, deliver, or transfer explosive materials.~~

~~(3) A blasting permit is required for every individual project requiring blasting explosives.~~

~~(4) A permit issued to any person, company, or corporation under this ordinance is nontransferable to any other person, company, or corporation.~~

~~(5) All blasting permits issued by _____ (jurisdiction name) must follow all federal, state, county, and city laws and regulations that apply to these activities with explosive materials:~~

~~(a) Obtaining;~~

~~(b) Owning;~~

~~(c) Transporting;~~

~~(d) Storing;~~

~~(e) Handling;~~

~~(f) Using.~~

~~Section 2: Application contents.~~

~~(1) The proper administrative authority (____name____) or their designee, has the power and authority to issue blasting permits and requires persons, companies, or corporations who are issued permits to file an application that includes:~~

~~(a) A completed application form provided by _____ (jurisdiction name) specifying the name and address of the person, company or corporation applying for the permit, and the name and address of the blast site or the person who will actually supervise the blasting.~~

~~(b) A current and valid explosives license issued by the state of Washington department of labor and industries to one or more individuals working on the specific blasting project.~~

~~(c) A transportation plan according to Section 8.~~

~~(d) A blasting plan according to Section 10(1).~~

~~(e) A traffic control plan according to Section 10(2).~~

~~(f) A preblast; notification, inspection, and monitoring plan according to Section 10(3).~~

~~(g) Proof of insurance must be provided according to Section 4.~~

~~(2) _____ (jurisdiction name) will issue a permit within fourteen days of receiving an application that includes acceptable documentation of the above items 1 a through g through 7.~~

~~If the permit is denied, it must be done within fourteen days of administering authority receipt and must include a list of reasons for denial as well as instructions for reapplication.~~

~~**Section 3: Fee.**~~

~~A permit fee is required for each permit issued. It should be:~~

~~(1) Valid for twelve months;~~

~~(2) Follow the local fee schedule;~~

~~(3) Renewable.~~

~~**Section 4: Liability insurance required.**~~

~~(1) If the _____ (jurisdiction name) design requires approval, then coverage of one million dollars or more is required or other reasonable amount depending on the circumstances as determined by _____ (name of the proper administrative authority).~~

~~(2) The certificate must also state that the insurance company must give _____ (jurisdiction name) a minimum of ten days notice of cancellation of the liability insurance coverage.~~

~~(3) The _____ (name of the proper administrative authority) has the power and authority to limit the level of blasting. After examining all pertinent circumstances surrounding the proposed~~

~~blasting, they may refuse to issue a permit, or suspend, or revoke an existing permit.~~

~~Section 5: Revocation.~~

~~The _____ (name of the proper administrative authority) has the power to revoke any permit if the permit holder does not follow the requirements of this chapter. The permit holder has twenty-four hours to remove all explosive materials after being notified that their permit has been revoked.~~

~~Section 6: Denial or revocation appeal.~~

~~Any person, company, or corporation whose blasting permit application is denied, suspended, or revoked by _____ (name of proper authority), may file a notice of appeal within ten days to _____ (name of the legislative body with jurisdiction over the administrator).~~

~~The legislative body must schedule an appeals hearing within fourteen days.~~

~~Section 7: _____ (jurisdiction name) not to assume liability.~~

~~_____ (jurisdiction name) is not responsible for any damage caused by the person, company, or corporation blasting with _____ (jurisdiction name).~~

~~**Section 8: Transportation of explosives (transportation plan).**~~

~~(1) You must include a transportation plan that addresses the transportation of explosive materials within _____ (jurisdiction name) with your application for a blasting permit.~~

~~(2) The transportation plan must include 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 be in compliance with federal and state transportation regulations for transportation of explosive material.~~

~~**Section 9: Storage of explosives.**~~

~~(1) No overnight storage of explosive material is permitted within the limits of _____ (jurisdiction area) without specific amendments to the permit allowing storage. Blast holes loaded with explosives are to be shot on the day they are loaded.~~

~~(2) The required method of handling explosives in _____ (jurisdiction area) is as follows:~~

~~(a) Same day delivery~~

~~(b) Stand by during loading~~

~~(c) Return of all unused explosive materials.~~

~~**Section 10: Use of explosives.**~~

~~(1) **Blasting plan.** A blasting plan for each project must be submitted to _____ and approved by the _____ (name of the proper administrative authority) or their designee prior to issuing a blasting permit. The plan must include additional documentation for the proposed blasting operation. For example, maps, site plans, and excavation drawings. The plan must include:~~

~~(a) The location where the blast will occur~~

~~(b) The approximate total amount of material to be blasted~~

~~(c) The incremental volumes, per blast, of material to be blasted~~

~~(d) The types and packaging of explosive materials to be used~~

~~(e) The drill hole diameters, depths, patterns, subdrilling depths and drill hole orientation to be used~~

~~(f) The initiation system, the incremental delay times, and the location of the primers in the explosive column~~

~~(g) The stemming depths and stemming material for the various estimated depths of drill holes to be blasted~~

~~(h) The approximate powder factors anticipated~~

~~(i) The flyrock control procedures and equipment to be used~~

~~(j) The maximum number of blasts that will be made in one day~~

~~(k) The blast warning sound system and equipment to be used~~

~~(l) The scheduled start date and finish date of blasting operations~~

~~(m) Additional requirements as needed.~~

~~(2) **Traffic control plan**. A traffic control plan acceptable to _____ (jurisdiction name) detailing signing, flagging, temporary road closures, and detour routes for blasting operations must be filed before the blasting permit is issued.~~

~~(3) **Preblast notification plan**. A plan outlining preblast public notifications, structural inspections, and blast effect monitoring within a specified distance of the blasting is required before the blasting permit is issued.~~

~~(a) **Separation distance**. The distances from the blasting where the notification, preblast structural inspection, and blast monitoring is required must be determined by the scaled distance formulas~~

~~described below. Blasting will not be permitted until the notification and inspection requirements are completed.~~

~~(b) **Scaled distance formulas.**~~

~~(i) The distance from the blast within which:~~

~~(A) Notification of all occupied structures is required: Da = 90 w;~~

~~(B) Inspection of all occupied structures is required: Db = 75 w;~~

~~(C) Monitoring of selected structures is required: Dc = 60 w.~~

~~(ii) In the above formulas:~~

~~(A) Da, Db, and Dc are the actual distances in feet from the closest point in the blast.~~

~~(B) w is the square root of the maximum weight of the explosives in pounds detonated with a minimum 8 millisecond from another detonation event.~~

~~(c) **Notification letter**. The preblast notification must consist of a letter advising all residents within the distance (specified in WAC 296-52-720 section 10 (3)(b)) of the blasts. The letter must include the intent of the blasting program, its anticipated impact on local residents, the proposed duration of blasting activities, and provide telephone numbers for public contact. Distribution of this notification must be made a minimum of seven days before the start of~~

~~blasting. The source of the chart is 121.8507, Bureau of Mines, U.S. Department of Interior, 1980.~~

~~(d) **Preblast inspection.** A preblast inspection of resident's property must be offered to all residents within the distance (specified in WAC 296-52-720 section 10 (3)(b) above) of the blasting at no cost to the resident and will be preformed 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 _____ (jurisdiction name). Where inspections are not allowed by the resident or are not possible for other reasons, a certified letter must be sent to the occupant/owner at the unsurveyed address advising them of their right to a preblast inspection and the possible consequences of denying an inspection. The preblast inspection program for residences within the specified distance must be complete two days prior to the start of blasting and the _____ (name of the proper administrative authority) should be notified.~~

~~(4) **Blast-plan compliance inspections.** Blast-plan compliance inspections may be required for every blast until the operator can demonstrate an ability to safely blast according to the blast plan and control the extraneous effects of blasting such as flyrock, noise/air~~

~~blast, and ground vibration. If more than two blasting inspections are required, an additional fee of _____ (insert dollar amount) per blast inspection will be assessed.~~

~~(5) **Monitoring.** All blasts which require monitoring by section 10 (3)(b) are to be monitored using blast monitoring equipment designed for the purpose and carrying a certificate of calibration dated within the previous twelve months. The blast monitors must record peak particle velocity and frequency in three orthogonal directions and air over pressure. Monitored shots in which the pounds detonated per an 8-millisecond time increment is less than ten pounds, one blast monitor is required. When ten or more pounds is detonated per an 8-millisecond time interval, two or more blast monitors are required. All blast-monitoring records are to be signed and submitted to _____ (jurisdiction name) within twenty-four hours of each blast.~~

~~(6) **Maximum peak particle velocity.** The maximum peak particle velocity in any seismic trace at the dominant frequency allowed on any residential, business or public structure designed for human occupancy is to be determined by the chart in WAC 296-52-67065(1).~~

~~(7) **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 WAC 296-52-67065(3). The source of this regulation is 121.8485, Bureau of Mines, U.S. Department of Interior, 1980.~~

~~(8) **Utilities.** Whenever blasting is being conducted in close proximity to existing utilities, the utility owner must be notified a minimum of twenty-four hours in advance of blasting.~~

~~(9) **Blast report.** A signed blast report, on a form approved by the _____ (name of the proper administrative authority) or their designee, needs to be filed with _____ (jurisdiction name) within twenty-four hours of the blast. The report must include the following blast information:~~

~~(a) Date, time, and location of the blast~~

~~(b) Number of drill holes~~

~~(c) Maximum, minimum and average drill hole depth~~

~~(d) Drill hole diameter~~

~~(e) Subdrill depth~~

~~(f) Total pounds of each type of explosive used~~

~~(g) A drill hole section schematic showing the loading of a typical hole~~

~~(h) Amount and type of stemming material~~

~~(i) Schematic showing the drill hole pattern~~

~~(j) Initiated delayed sequence~~

~~(k) Maximum pounds of explosives detonated in any eight millisecond time interval~~

~~(l) Type and size of any flyrock protection devices used, if any~~

~~(m) Comment regarding the outcomes of the blast.~~

~~(10) _____ (jurisdiction name) must be notified immediately of any unplanned or unusual events that resulted from the blast. The permittee must also report any incident, damage claim, or neighbor annoyance report brought to the permittee's attention within twenty four hours.~~

~~**Section 11:**~~

~~This ordinance will be in effect to preserve the health, peace, and safety of the citizens of _____ (jurisdiction name).~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-720, filed 8/1/17, effective 9/1/17. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-720, filed 1/23/02, effective 3/1/02.]

NEW SECTION

WAC 296-52-7200 Propellants, primers and binary exploding mixtures. These materials in bulk may create an explosion hazard. The restrictions in the following sections will be used.

[]

NEW SECTION

WAC 296-52-7205 Transportation. All materials listed below must be transported in U.S. DOT approved shipping containers. Additional restrictions are listed by type below:

Table G-1

Material	Limits by Transport Type	
	Private	Commercial
Smokeless powder	25 lbs-no restrictions 25-50 lbs-wood box with 1" walls	DOT
Black powder	5 lbs	DOT
Small arms primers	25,000	DOT
Binary exploding mixtures (unmixed)	65 lbs or less-no restrictions 66 lbs or more-DOT approved shipping containers and boxes	DOT

[]

NEW SECTION

WAC 296-52-7210 Storage. (1) Storage conditions must be followed by all persons and entities as specified in WAC 296-52-72100

through 296-52-72140 below. Local jurisdictions may impose more stringent requirements.

(2) Storage of loose powders and primers is not allowed. All materials listed must be packed and stored, in U.S. DOT approved shipping containers.

[]

NEW SECTION

WAC 296-52-72110 Private residences. Storage of more than the maximum amounts listed below requires the use of a magazine as listed in WAC 296-52-72140.

(1) Small arms smokeless powder:

(a) Twenty-five pounds or less: No additional restrictions.

(b) Twenty-five to 50 pound must be stored in a strong box or cabinet constructed of a minimum of 3/4-inch plywood or equivalent material, on all sides, top, and bottom.

(c) Fifty pounds or more is not allowed.

(2) Black powder: No more than five pounds of black powder is permitted. No additional restrictions.

(3) Small arms ammunition primers. The maximum permitted is 10,000 primers.

(4) Binary exploding mixtures (unmixed):

(a) Sixty-five pounds or less: No additional restrictions;

(b) Sixty-six pounds or more must be in a ventilated fire preventive cabinet that is:

(i) Not made of wood or combustible materials; and

(ii) Covered with a noncombustible coating.

[]

NEW SECTION

WAC 296-52-72120 Commercial stocks. Commercial and retail establishments must store these materials as shown below. Storage of more than these amounts requires the use of a magazine as listed in WAC 296-52-72140.

(1) Small arms smokeless powder:

(a) Under 20 pounds; no restriction.

(b) Over 20 pounds but not more than 100 pounds must be stored in portable wooden boxes with a minimum of one-inch thick walls.

(c) Over 100 pounds but less than 150 pounds, must be stored in a nonportable storage cabinet with a minimum of one-inch thick wood walls.

(2) Black powder:

(a) No more than 25 pounds is permitted.

(b) Must be stored in portable wooden boxes with a minimum of one-inch thick walls, which are securely locked.

(3) Small arms ammunition primers:

(a) No more than 100,000 small arms ammunition primers may be stored in one stack.

(b) Stacks must be separated by at least 15 feet.

(c) No more than 750,000 total.

(4) Binary exploding mixtures (unmixed):

(a) Quantities exceeding 100 pounds but not exceeding 1,000 pounds must be stored in:

(i) Ventilated fire protective storage cabinets not made of wood; and

(ii) U.S. DOT approved packaging and containers.

(b) Not more than 1,000 pounds will be stored in any publicly accessible commercial establishment.

(c) Damaged containers and the contents of the containers must be disposed of immediately and not returned to storage.

[]

NEW SECTION

WAC 296-52-72130 Commercial displays. (1) Smokeless powder:

(a) Cannot exceed 75 pounds.

(b) Must be in one-pound containers.

(2) Black powder:

(a) Cannot exceed five pounds.

(b) Must be in one-pound containers.

(3) Small arms ammunition primers: Cannot exceed 10,000 primers.

(4) Binary exploding powder mixtures:

(a) Cannot exceed 100 pounds.

(b) Must remain in DOT approved shipping containers.

[]

NEW SECTION

WAC 296-52-72140 Magazines. (1) Magazines are required for any of the following amounts:

(a) Small arms smokeless powder that exceed 150 pounds:

(i) Cabinets (Type 4) must:

(A) Not exceed 400 pounds;

(B) Be separated by:

(I) One hour fire wall; or

(II) Twenty-five feet.

(ii) Built-in magazines must:

(A) Not exceed 1,000 pounds;

(B) Be separated by 25 feet.

(iii) Cannot exceed 5,000 pounds per building.

(b) Black powder that exceeds 25 pounds:

(i) Quantities of 25 to 50 pounds may be stored in an indoor magazine;

(ii) Quantities greater than 50 pounds must be stored in outdoor magazines;

(iii) If smokeless powder and black powder are stored together, the total quantity will not exceed that permitted for black powder.

(c) Small arms ammunition primers exceeding 750,000;

(d) Binary exploding mixtures (unmixed) that exceed 1,000 pounds.

(2) All items listed may be stored in Type 4 magazines or better as listed in Part E.

(3) Primers must be stored separately from powders and explosives.

[]

AMENDATORY SECTION (Amending WSR 05-08-110, filed 4/5/05, effective 6/1/05)

WAC 296-52-725 ((~~**Appendix B, sample format for a blast record, nonmandatory.**~~)) **Reserved.**

((~~**Note:** The sample blast record format is nonmandatory, but the information shown in the sample is required per WAC 296-52-67010(8), Blast records.~~

SAMPLE FORMAT FOR A BLAST RECORD

(*Minimum Record Requirements)*

Blast/Record Date_____ Blast #_____Time of Blast_____ ☐ AM ☐ PM

Employer:_____

Blast-Site Location:_____

Blast Crew Members:

_____

_____

_____

General Weather Conditions (Clouds & Ceiling, Humidity, Wind Speed/Direction, Temperature, etc.):

_____

_____

_____

Type & Condition of Rock Blasted:

_____

Number of Boreholes Diameter _____ in. Depth _____ ft. Backfill_____

Borehole Water Depth Burden _____ ft. Spacing _____

Number of Rows Stemming _____ ft. Stemming Material _____

Non-Standard Pattern Details:

MAKE, TYPE and AMOUNT Of Explosives Used

DETONATORS

☐ Electric ☐ None

_____ _____lb.

_____ _____lb. Manufacturer _____

_____ _____lb. Length _____

_____ _____lb. Delay Periods _____

_____ _____lb. # of Units _____

_____ _____lb.

Total Pounds in Blast = _____lb. ☐ Cord _____

Maximum boreholes per delay _____ Maximum loaded pounds per delay _____

Number of decks per borehole _____ Weight of explosives per deck _____

Distance, direction, and address of closest structure from blast site _____ ft.

Distance: _____ ft. Direction: _____ Address: _____

Calculated scaled distance W = $(D/(55/60/65))^2$ = _____ Maximum lb. Per delay allowed in (USBM)

Distance, direction, and address of seismographs from the blasts site.

Distance: _____ ft. Direction: _____ Address: _____

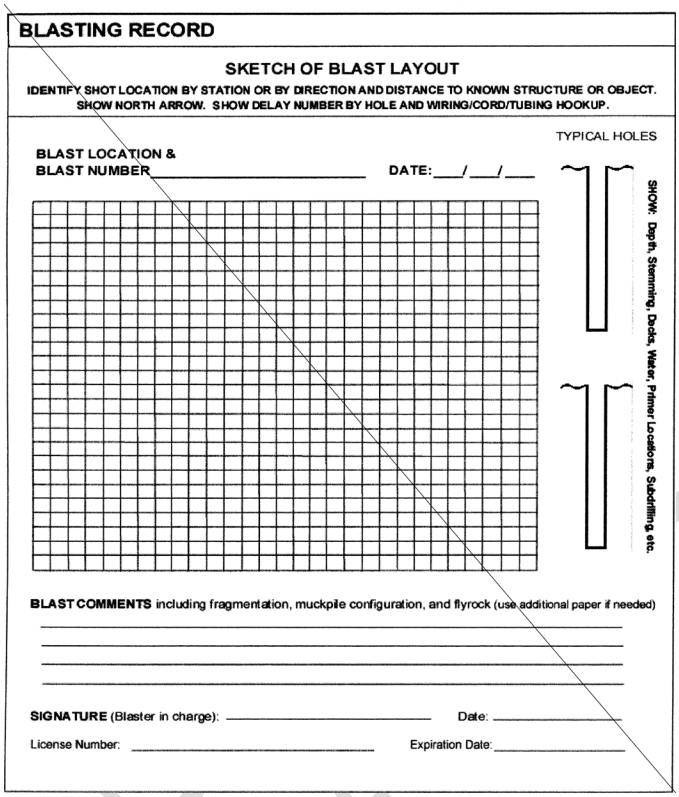
Calibration dates of seismographs used:

Number _____ Date _____ Number _____ Date _____

Method used to measure distances (Laser RF, Optical RF, GPS, Tape, Wheel, Map)?

_____ Other Method: _____

1



BLASTING RECORD

SKETCH OF BLAST LAYOUT

IDENTIFY SHOT LOCATION BY STATION OR BY DIRECTION AND DISTANCE TO KNOWN STRUCTURE OR OBJECT. SHOW NORTH ARROW. SHOW DELAY NUMBER BY HOLE AND WIRING/CORD/TUBING HOOKUP.

TYPICAL HOLES

BLAST LOCATION & BLAST NUMBER_____ **DATE:**___/___/___

SHOW: Depth, Stemming, Decks, Water, Primer Locations, Subdrilling etc.

BLAST COMMENTS including fragmentation, muckpile configuration, and flyrock (use additional paper if needed)

SIGNATURE (Blaster in charge): _____ Date: _____

License Number: _____ Expiration Date: _____

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 05-08-110, § 296-52-725, filed 4/5/05, effective 6/1/05. Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. WSR 02-03-125, § 296-52-725, filed 1/23/02, effective 3/1/02.]

NEW SECTION

WAC 296-52-7300 Use. All items listed in this part are:

(1) Intended for personal sporting use unless otherwise noted in this chapter; and

(2) Not allowed to be used for blasting of any kind; and

Exemption: Primers used in initiation systems as specified in the operating instructions for the initiation system by the manufacturer.

(3) Binary exploding mixtures (personal sporting use):

(a) Once mixed are explosives; and

(b) May only be mixed:

(i) For use; and

(ii) Per manufacturer's directions, including combining multiple charges or containers and repackaging into containers other than those provided by the manufacturer.

Note: Repackaging into any container that creates any fragmentation or increases the effect of the mixture, or placement to intentionally cause harm is considered manufacture of an improvised explosive device (IED) and potentially subject to law enforcement arrest and criminal prosecution as violations of chapter 70.74 RCW.

(c) Can only be used at the location they are mixed. Movement away from the sites designated by the landowner for mixture and use requires licensing as a manufacturer;

(d) Must only be used in areas approved for their use by the landowner; and

Note: All state and federal wildlife and forest areas are forbidden from the use of binary exploding mixtures unless specifically stated otherwise.

(e) Cannot be stored mixed.

[]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

Part H
Avalanche Control

WAC 296-52-800 ((~~**Avalanche control.**~~)) **Reserved.** ((~~(1) General.~~

~~(a) During periods of high avalanche danger, areas in avalanche paths must not be opened for use until trained personnel have evaluated conditions and determined whether avalanche control work is necessary.~~

~~(b) When avalanche control work is deemed necessary, areas in the potential avalanche path must be closed until the risk of avalanches has been reduced to a level determined appropriate by trained personnel.~~

~~(c) An avalanche must not be purposely released until the avalanche path and potential runout zone are clear of personnel and vehicles.~~

~~(d) Avalanche guards, signs, and/or barricades must be positioned at normal entrances to the avalanche path if there is any chance that personnel and vehicles will enter the danger zone during intentional release activities.~~

~~(c) During very unstable snow conditions, release of one avalanche may trigger sympathetic releases over a wide area. Avalanche workers must consider such possibility and clear the appropriate areas of personnel and vehicles.~~

~~(2) Personnel and equipment.~~

~~(a) The avalanche control crew must be adequately trained and physically capable for tasks which can be anticipated in their individual job assignments.~~

~~(b) No person must accept or be given a job assignment which is beyond the individual's physical ability or training.~~

~~(c) On-slope assignments which include potential exposure to avalanche hazards must only be conducted by fully qualified and fully equipped control crew members.~~

~~(d) The control crew may be split up into smaller groups (teams) to work on multiple areas simultaneously provided that each team consists of at least two qualified members.~~

~~(e) Each avalanche control crew or team must have one or more designated rescue coordinators as is deemed necessary to maintain communications. Compliance with this requirement may be achieved by designating control crew teams to serve as each others' rescue~~

~~coordinator provided that the teams are reasonably proximate to each other and do in fact maintain frequent communications.~~

~~(f) Each avalanche control crew member must be equipped for continuous two-way communications to the avalanche crew coordinators.~~

~~(g) The avalanche crew or teams must not be assigned to on-slope areas where they cannot maintain communications with their designated coordinator. This requirement may be met by the use of a relay person; however, if any team completely loses communications, they must return directly to base via the safest route available.~~

~~(h) Each person on an avalanche control team must be equipped with a shovel and an electronic transceiver before commencing on-slope control work. The transceiver must be in the transmit position whenever personnel are performing on-slope job assignments.~~

~~(3) Avalanche rescue plan. All employers with avalanche control personnel must have a written avalanche rescue plan. The plan must require:~~

~~(a) All rescue personnel who will be assigned to on-slope activities must:~~

~~(i) Be competent skiers;~~

~~(ii) Have a current first-aid card;~~

~~(iii) Be thoroughly trained in the rescue plan details;~~

~~(b) A specific list of required equipment for rescue crew personnel including:~~

~~(i) Probes;~~

~~(ii) Belaying rope;~~

~~(iii) Shovels;~~

~~(iv) Two-way communication radios;~~

~~(v) Electronic transceivers;~~

~~(c) A list of rescue equipment locations;~~

~~(d) Specific rescue procedures to be followed.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-800, filed 8/1/17, effective 9/1/17; WSR 06-19-074, § 296-52-800, filed 9/19/06, effective 12/1/06.]

NEW SECTION

WAC 296-52-8000 General. (1) Operations which are licensed for explosive avalanche control must have trained and designated personnel for the evaluation of avalanche hazards. An avalanche control plan must describe the methods and procedures for any such hazard evaluation and mitigation.

(2) The avalanche control plan must describe how potentially hazardous areas are managed to decrease risk to workers and the general public. These techniques may include:

(a) Closure; and

(b) Hazard reduction; and

(c) Warning signs; and

(d) Monitoring.

(3) Designated personnel must annually review and update plans, policies, and procedures. The plan will state the date last updated.

(4) Operational records must be kept which describe the personnel, techniques, and outcomes, of all explosive hazard reduction activities. These records must be maintained for a minimum of three years.

(5) Avalanche guards, signs, and/or barricades must be positioned at normal access points to the avalanche path if there is any chance that personnel and vehicles will enter the danger zone during intentional release activities.

(6) During very unstable snow conditions, release of one avalanche may trigger sympathetic releases over a wide area. Avalanche workers must consider such possibility and clear the appropriate areas of personnel and vehicles.

[]

NEW SECTION

WAC 296-52-80010 Personnel and equipment. (1) The avalanche control crew must be adequately trained and physically capable for tasks which can be anticipated in their individual job assignments.

(2) No person may accept or be given a job assignment which is beyond their individual physical ability or training.

(3) On-slope assignments which include potential exposure to avalanche hazards must only be conducted by fully qualified and fully equipped control crew members; or, trainees under direct supervision of fully qualified personnel.

(4) The control crew may be split up into smaller groups (teams) to work on multiple areas simultaneously provided that each team consists of at least two qualified members.

(5) Each avalanche control crew or team must have one or more designated rescue coordinators as is deemed necessary to maintain communications. Compliance with this requirement may be achieved by designating control crew teams to serve as each others' rescue coordinator provided that the teams:

(a) Are reasonably proximate to each other; and

(b) Do in fact maintain frequent communications.

(6) Each avalanche control crew member must be equipped for continuous two-way communications to the avalanche crew coordinators.

(7) The avalanche crew or teams must not be assigned to on-slope areas where they cannot maintain communications with their designated coordinator. This requirement may be met by the use of a relay person; however, if any team completely loses communications, they must follow the operation's safety plan for loss of communication.

(8) Each person on an avalanche control team must be equipped with a shovel, probe, and an electronic transceiver before commencing on-slope control work. The transceiver must be in the transmit position whenever personnel are performing on-slope job assignments.

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NEW SECTION

WAC 296-52-80020 Avalanche rescue plan. (1) All employers with avalanche control personnel must have a written avalanche rescue plan. The plan must require:

(a) Initial and at least annual review by all avalanche control personnel, and the date last updated.

(b) Training guidelines for rescue personnel and operations.

(c) Training, physical requirements, and required equipment for rescue responders.

(d) Equipment cache locations and cache contents.

(e) A portion of the plan must address integration with local emergency management systems and the potential emergency care and evacuation of victims.

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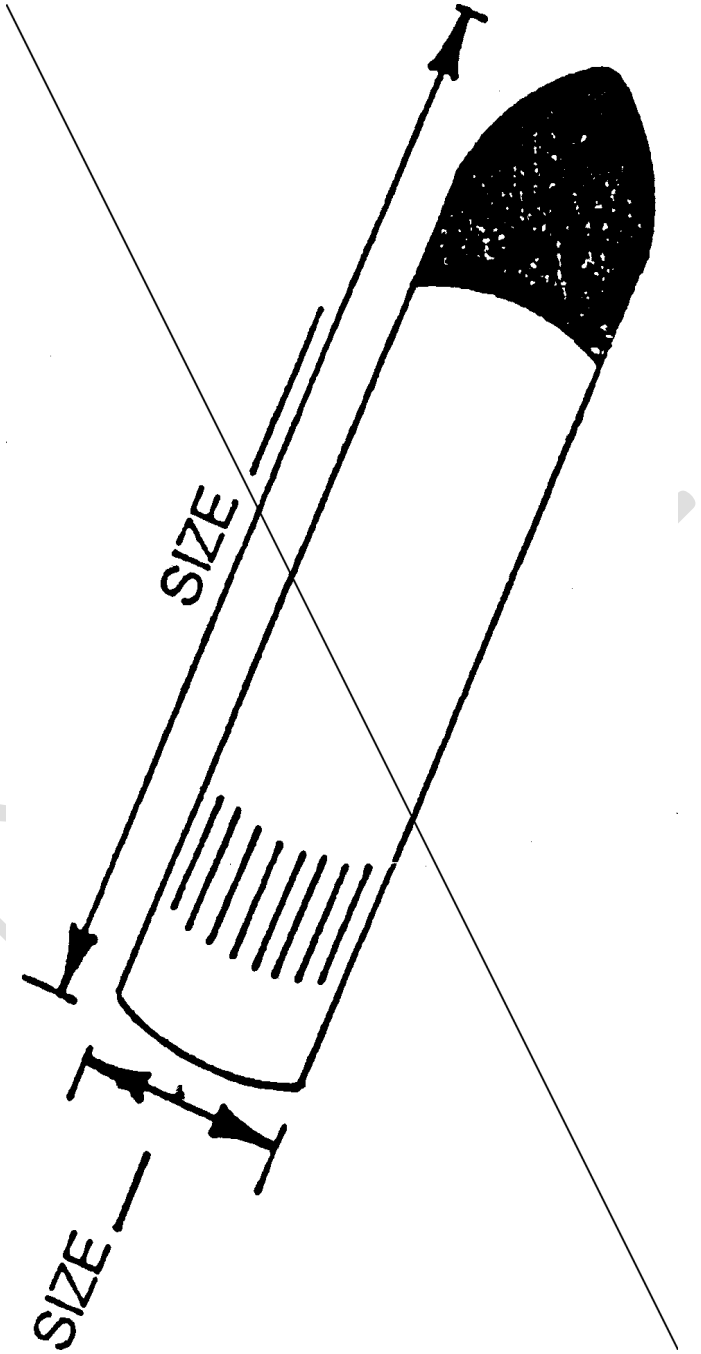
AMENDATORY SECTION (Amending WSR 06-19-074, filed 9/19/06, effective 12/1/06)

WAC 296-52-802 ((~~**Acceptable warning signs for typical avalanche control devices (duds).**~~)) **Reserved.** ((~~DANGER EXPLOSIVES ON THE MOUNTAIN~~

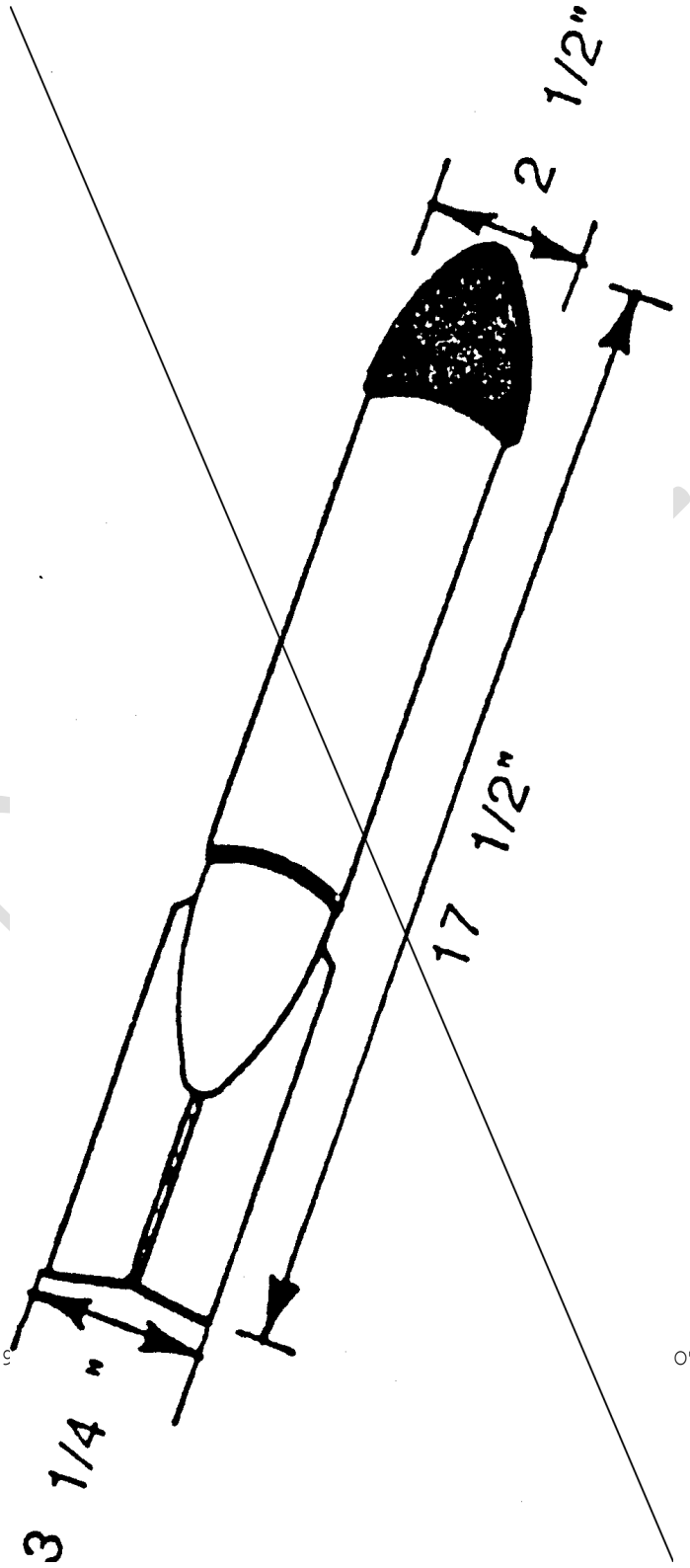
~~Unexploded warheads, projectiles, or hand charges used in avalanche control may be found in target areas or in avalanche runout zones.~~


SIZE
SIZE

~~UNEXPLODED WARHEADS~~

~~WARHEAD MAY BE DISTORTED~~

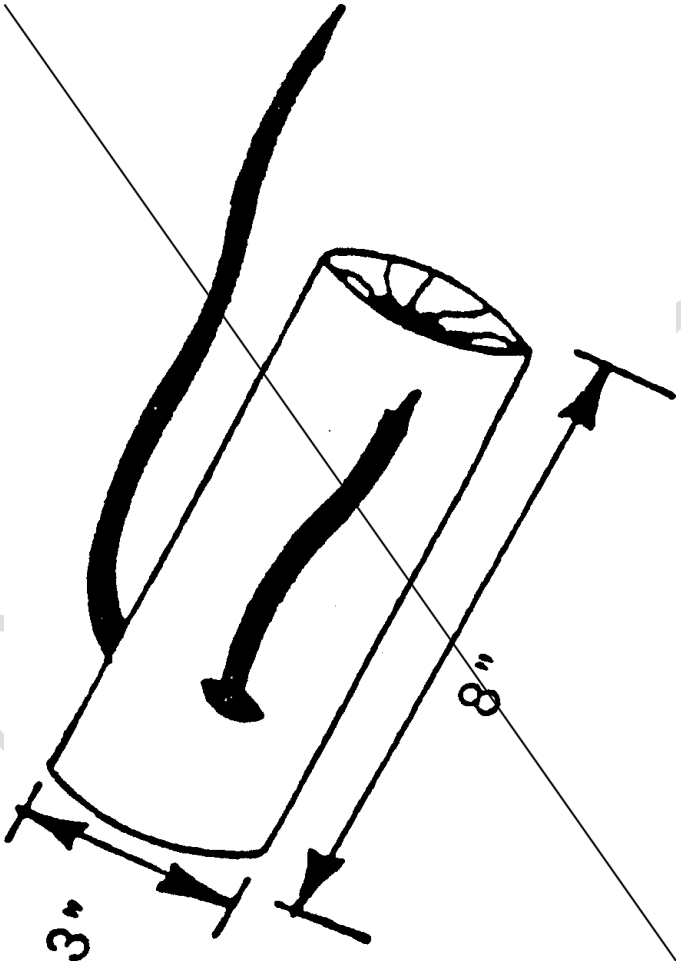
~~FROM IMPACT.~~


2 1/2"
17 1/2"
3 1/4"

~~AVALAUNCHER PROJECTILE~~

~~RED OPAQUE BODY,~~

~~RED TRANSLUCENT FINS.~~



~~DYNAMITE HANDCHARGE~~

~~COLORED WRAPPING,~~

~~WILL USUALLY HAVE FUSE.~~

~~If you find an unexploded (dud) charge, do the following:~~

~~1. Do not disturb or touch!~~

~~2. Mark the location within 5 to 10 feet.~~

~~3. Immediately report the location.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 06-19-074, § 296-52-802, filed 9/19/06, effective 12/1/06.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-803 ((**~~Storage, makeup, and use of explosives for avalanche control blasting.~~**)) **Reserved.** ((~~(1) General.~~

~~(a) The storage, handling, and use of explosives and blasting agents used in avalanche control practices must comply with this chapter and chapter 70.74 RCW.~~

~~(b) The minimum requirements published in chapter 296-52 WAC, Part H, must be applicable to the storage, handling, and use of explosives and blasting agents in the endeavor of avalanche control.~~

~~(2) Management responsibility.~~

~~(a) Explosives and blasting agents must not be stored in any regularly occupied areas or buildings except in compliance with this chapter.~~

~~(b) Explosives and blasting agents must not be assembled or combined to form armed charges in any regularly occupied area or building except in compliance with this chapter.~~

~~(3) Personnel.~~

~~(a) Only fully qualified and licensed blasters must be permitted to assemble or arm explosives components.~~

~~(b) Training must include avalanche blasting experience so that the problems encountered in cold weather blasting are known factors.~~

~~(c) All training activities must be conducted under the attended supervision of a fully qualified and licensed blaster.~~

~~(4) General requirements.~~

~~(a) Initiating systems for hand-placed or hand-thrown charges.~~

~~(i) The ignition system on single-unit hand-thrown charges must consist of a nonelectric cap or shock tube and approved initiation system.~~

~~(ii) Multiple units combined to form a single hand-placed charge may use the above system, an approved detonating cord system or shock~~

~~tube system. No other ignition system must be permissible without specific approval by the department.~~

~~(iii) When using a shock tube system, after all charges are in place, connected to the shock tube trunk line and ready for initiation, the shock tube initiation tool must be attached for firing.~~

~~(b) Multiple charge blasts.~~

~~(i) Detonating cord or shock tube system must be used in lieu of blasting wire to connect multiple charge blasts.~~

~~(ii) When using detonating cord systems, after all charges are placed, connected to the detonating cord, and the charges are ready to be ignited, a safety fuse and cap must be attached to the detonating cord. A fuse igniter may then be attached to ignite the safety fuse.~~

~~(c) Blasting caps must be no larger than No. 8 except when recommended by the explosives manufacturer for a particular explosive used within a specific application.~~

~~(d) Electric blasting caps are not permitted.~~

~~(e) Safety fuse and shock tube.~~

~~(i) Only the highest quality safety fuse with excellent water resistance and flexibility must be used.~~

~~(ii) Shock tube systems may be used in place of fuse cap and safety fuse systems.~~

~~(f) Fuse length.~~

~~(i) Safety fuse length must be selected to permit the control team adequate escapement time from the blast area under all reasonable contingencies (falls, release of bindings, etc.)~~

~~(ii) In no instance must a fuse length with less than ninety seconds burn time be permitted.~~

~~(iii) The burn time of each roll of safety fuse must be checked prior to use.~~

~~(iv) Checked rolls must be marked with the tested burn time.~~

~~(v) It is recommended that all hand charges be prepared for ignition with either one safety fuse and igniter or a double safety fuse and igniters.~~

~~**Note:** Standard safety fuse burns at a rate of forty to fifty-five seconds at two thousand five hundred meters elevation. This rate equates to approximately twenty-four inches fuse length for ninety second hand charge fuses at normal avalanche control elevations, but fuse burn rate should be checked before each use.~~

~~(5) Explosives.~~

~~(a) Explosives chosen must have a safe shelf life of at least one operating season in the storage facilities in which it will be stored.~~

~~(b) Explosives chosen must have excellent water and freezing resistance.~~

~~(c) Industrial primers (or boosters) that consist mainly of TNT or gelatin are the recommended explosives.~~

~~(6) Transporting explosives and hand charges.~~

~~(a) Hand charges or explosives components must be transported in approved type avalanche control packs, in United States Department of Transportation-approved shipping containers or in licensed magazines.~~

~~(b) Criteria for avalanche control packs.~~

~~(i) The pack must be constructed of water resistant material.~~

~~(ii) Packs must be constructed with sufficient individual compartments to separate hand charges or explosives components from tools or other equipment or supplies which may be carried in the pack.~~

~~(iii) Each compartment used for hand charges or explosives components must have an independent closure means.~~

~~(iv) If fuse igniters will be permitted to be carried on the avalanche control pack, a separate compartment with individual closure means must be attached to the outside of the exterior of the pack.~~

~~(c) Use of avalanche control packs.~~

~~(i) Packs must be inspected daily, prior to loading, for holes or faulty compartment closures. Defective packs must not be used until adequately repaired.~~

~~(ii) Tools or other materials must not be placed in any compartment which contains hand charges or explosives components.~~

~~(iii) Fuse igniters must never be placed anywhere inside the pack when the pack contains hand charges or other explosives components.~~

~~(iv) Fuse igniters may be carried in a separate compartment attached to the outside of the pack exterior but preferably in a compartment attached to the front of the carrying harness. Another acceptable alternative is to carry the igniters in a jacket pocket completely separate from the pack.~~

~~(v) Hand charges or explosives components must not be stored or left unattended in avalanche control packs. Unused hand charges must be promptly disassembled at the end of individual control routes and all components returned to approved storage.~~

~~(vi) Individual control team members must not carry more than thirty-five pounds of hand charges in avalanche control packs.~~

~~(vii) A hand charge or cap and fuse assembly which has a fuse igniter attached must never be placed in an avalanche control pack for any reason.~~

~~(d) Whenever explosives or explosives components are transported in or on any vehicle powered by an internal combustion engine,~~

~~provisions must be made to ensure that said explosives or containers cannot come into contact with the hot exhaust system.~~

~~(e) Hand charges or explosives components must not be transported in spark-producing metal containers.~~

~~(f) Hand charges must not be transported on public roads and highways when such roads or highways are open to the public. Explosives components must only be transported on public roads or highways in compliance with United States Department of Transportation regulations.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-803, filed 8/1/17, effective 9/1/17; WSR 06-19-074, § 296-52-803, filed 9/19/06, effective 12/1/06.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-805 ((~~**Hand charge makeup methods.**~~)) **Reserved.**

((~~General. The department must recognize two permissible methods concerning hand charges for avalanche control blasting. The~~

descriptions and requirements for each method are contained in this section.

Note: A well designed and constructed hand charge makeup room can enhance the correct assembly of explosive components and reduce the incidences of misfires from incorrect makeup or moisture.

(1) Method I. Makeup at the blast site.

(a) The ignition system must consist of a nonelectrical blasting cap and highest quality water resistant safety fuse, or detonating cord, assembled as recommended by the manufacturer.

(b) Detonating cord must be used to connect separated multiple-charge blasts.

(c) No other ignition system must be permissible on hand-placed or hand-thrown avalanche control charges unless variance is granted by the department.

(d) Caps must be installed on correct length fuses prior to being transported out onto control routes.

(e) Caps must only be crimped with a crimper tool approved for that purpose.

(f) Assembling caps and fuses must be done in a warm, dry, well-lighted environment. The location used for assembly must not have flammable fuels, flammable gases, or explosives present where accidental detonation of the caps could create a secondary ignition or detonation hazard.

~~(g) Each cap must be protected by a styrofoam shield or the equivalent before being placed in an avalanche control pack for transportation.~~

~~(h) A fuse igniter must never be attached to a fuse until the fuse and cap assembly is installed in the hand charge at the blast site and the control crew is fully prepared to ignite the charge.~~

~~(i) All 1.1 explosives must be attended as defined in this chapter at all times when the explosive is out of the Type 1 or 2 storage magazine.~~

~~(j) Disbursement of explosive charges from the Type 1 or 2 storage magazine into avalanche control packs must be done outside the storage magazine. Records must be maintained for all explosives disbursed.~~

~~(k) Caps, cap and fuse assemblies, armed hand charges, or fuse igniters must not be carried into or stored in a Type 1 or 2 magazine which contains 1.1 explosives.~~

~~(2) Method II. Hand charge makeup room. This method is different from method I primarily in that the fuse and cap assembly is installed in the explosive charge while inside a special makeup room. The assembly procedure must be as follows:~~

~~(a) Install caps on correct length fuses with an approved crimper tool before explosives are brought into the makeup room.~~

~~(b) The cap and fuse assemblies must not be combined with explosives to form hand charges until just before the intended time of distribution.~~

~~(c) Only nonsparking skewers must be used to punch holes in an explosives cartridge.~~

~~(d) The fuse must be laced or taped in position after inserting the cap in the charge.~~

~~(e) Each hand charge must be placed in an explosives box or avalanche control pack immediately after assembly is completed.~~

~~(f) No spark-producing metal tools must be used to open explosives containers.~~

~~(g) Fuse igniters must never be attached to a fuse or a hand charge until the hand charge is at the blast site and the control crew is fully prepared to ignite the charge.~~

~~(3) Makeup room requirements, procedures.~~

~~(a) Construction requirements.~~

~~(i) Makeup rooms located in accordance with the American Standard Quantity and Distance Tables for storage must not require construction~~

~~of reinforced concrete walls, floors, and doors. All other requirements of this chapter must be applicable for such facilities.~~

~~(ii) Floors and walls. The floor and walls must be constructed of reinforced concrete not less than eight inches thick. The rebar must not be less than one-half inch diameter and must be spaced on twelve-inch vertical and horizontal centers. The rebar must be bent at a ninety degree angle and extend a minimum of twenty-four inches into the adjoining floor or wall to secure each floor and wall joint.~~

~~(iii) Roof. The roof is not limited to specific materials but must provide both weather protection and standard snow loading protection for the region.~~

~~(iv) Access door(s).~~

~~(A) If a hinged door mounting is utilized, the hinge must be mounted on the inside so that the door opens into the makeup room. In the fully closed position, in position to be locked, the door must be a minimum of two inches larger than the access opening on all sides.~~

~~(B) If a flush door mounting is utilized, the door must be mounted with a two-inch decreasing taper on all sides of both the door and the concrete access opening to form a wedge seal.~~

~~(C) If a sliding door mounting is utilized, the mounting apparatus must be on the inside of the makeup room and the door must~~

~~be a minimum of two inches larger than the access opening when the door is fully closed.~~

~~(D) Makeup room door may be either:~~

~~(I) Constructed to the same structural integrity and mounting requirements of (A) through (C) of this subsection; or~~

~~(II) Constructed of plywood not less than two inches thick and overlaid on the outside with a steel plate not less than one-eighth inch thick.~~

~~(III) If a door which complies with (II) of this subsection is used, a berm or barricade must be installed within six feet of the door. The berm or barricade must extend at least as high as the top of the door and must be a minimum of two feet wider than the door on both sides of the door.~~

~~(E) For security purposes, one steel padlock having at least five tumblers and a case hardened shackle of at least three-eighths inch diameter is sufficient for locking purposes. Hinges and hasps must be attached so that they cannot be removed from the outside when in the closed position and with the lock in place.~~

~~(v) Interior finish. The inside of all makeup rooms must be finished and equipped to the following minimum requirements:~~

~~(A) Construction must be fire resistant and nonsparking up to the top of the walls. Nails or screws must be countersunk, blind nailed, or covered.~~

~~(B) Lighting must be by N.E.C. explosion-proof rated fixtures and all wiring must be in sealed conduit.~~

~~(C) Control switches must be outside the makeup room.~~

~~(D) No electrical outlet boxes are permissible inside the room.~~

~~(b) Restrictions.~~

~~(i) Smoking, matches, open flames, or flame- or spark-producing devices must not be permitted inside the makeup room.~~

~~(ii) Flammable liquids or flammable compressed gases must not be stored in the makeup room.~~

~~(iii) Signs limiting entry to authorized personnel must be posted on the door(s).~~

~~(iv) A sign stating the occupancy rules must be posted inside the makeup room where it is clearly legible upon entering the room. The sign must post the following rules:~~

~~(A) Occupancy must be restricted to specifically authorized personnel;~~

~~(B) Smoking, matches, flame- or spark-producing devices, tools or equipment must not be permitted in the room at any time when explosives or explosive components are present; and~~

~~(C) Flammable fuels or compressed gases must not be permitted inside the room nor stored within fifty feet of the room.~~

~~(v) Heating units must be limited to:~~

~~(A) Forced air systems with the heating unit located outside the room.~~

~~(B) Steam systems of 15 psig or less.~~

~~(C) Hot water systems of 130°F or less.~~

~~(D) The radiant heating coils and piping for steam or hot water systems must be protected so that explosives cannot come into contact with them.~~

~~(E) Heating ducts must be installed so that the hot air does not discharge directly on explosives.~~

~~(F) The heating system used in a makeup room must have controls which prevent the ambient room temperature from exceeding 130°F.~~

~~(vi) The makeup room must be equipped with a portable fire extinguisher of at least 2A-20BC rating.~~

~~**Note:** For additional requirements relating to portable fire extinguishers see WAC 296-800-300.~~

~~(vii) Ventilation.~~

~~(A) The makeup room must be equipped with a ventilation system capable of maintaining a minimum rate of three air exchanges per hour during all times when explosives are present in the room.~~

~~(B) Fans and controls must be located outside the makeup room and must be of a type approved for this service.~~

~~(C) The lighting circuit control must also activate the ventilation fan and the ventilation fan must be operated whenever personnel are in the room.~~

~~(D) Exhaust ventilation must be arranged to discharge into outside air, not into an enclosed structure.~~

~~(viii) The floor or exterior walls may be constructed with duct openings for heating and ventilation purposes provided that:~~

~~(A) Each duct opening is not greater in volume than seventy-two square inches;~~

~~(B) The combined number of duct openings must not exceed three;~~

~~(C) Duct openings must be located within twelve inches of the floor or ceiling;~~

~~(D) The exhaust duct opening must not be located on the wall above the makeup workbench.~~

~~(c) Practices and procedures.~~

~~(i) When explosives are present in the makeup room, entry into the makeup room must be restricted to trained and authorized personnel.~~

~~(ii) The access door(s) to the makeup room must be kept locked or bolted from the inside while employees are assembling explosives.~~

~~(iii) The entire makeup room must be kept clean, orderly, and free of burnable rubbish.~~

~~(iv) Brooms and other cleaning utensils must not have any spark-producing metal parts if used when explosives are present.~~

~~(v) Sweepings and empty explosives containers must be disposed of as recommended by the explosives supplier.~~

~~(vi) Repair activities which utilize spark-producing tools must not be conducted on any part of the makeup room while explosives are present.~~

~~(d) Storage of explosives.~~

~~(i) A makeup room must not be used for the unattended storage of 1.1 explosives.~~

~~(ii) A makeup room which meets all requirements of this chapter may contain a Type 3 storage facility, for one thousand or less blasting caps.~~

~~(iii) A Type 3 storage facility must be constructed according to the requirements in WAC 296-52-70030 through 296-52-70040.~~

~~(A) A Type 3 storage facility must be fire resistant and theft resistant. It does not need to be bullet resistant and weather resistant if the locked makeup room provides protection from weather and bullet penetration.~~

~~(B) Sides, bottoms, and covers must be constructed of not less than number twelve gauge metal and lined with a nonsparking material.~~

~~(C) Hinges and hasps must be attached so that they cannot be removed from the outside.~~

~~(D) One steel padlock having at least five tumblers and a case-hardened shackle of at least three-eighths inch diameter is sufficient for locking purposes. The lock and hasp is not required to be equipped with a steel hood.~~

~~(e) Location.~~

~~(i) The makeup room must be located in accordance with the American Quantity and Distance Separation Tables as adopted in chapter 70.74 RCW, Washington State Explosives Act and this chapter except under conditions as indicated in this section.~~

~~(ii) Where locating the makeup room in accordance with the quantity and distance separation table is impractical because of bad weather accessibility, rough terrain, or space availability:~~

~~(A) Upon application the department will issue a variance enabling location of the makeup room, by mutual agreement, at the safest possible location within the limitation of the individual base area.~~

~~(B) The safest possible location will be the location most isolated from assembly areas and buildings that are inhabited with application of additional protection measures such as:~~

~~(I) Berming.~~

~~(II) Locating natural obstructions or buildings that are not inhabited between the makeup room and assembly areas and buildings that are inhabited.~~

~~(III) Limitations on the total quantity of explosives in the makeup room at any one time.~~

~~(iii) Makeup rooms designed to hold the boxes of explosives awaiting makeup and the madeup explosives in avalanche control packs awaiting distribution may be located using the total quantity of explosives allowed at the makeup table at any one time as the referenced quantity of explosives provided.~~

~~(A) The makeup room is located in accordance with the American Quantity and Distance Separation Tables as adopted in chapter 70.74 RCW, Washington State Explosives Act and this chapter for the referenced quantity of explosives at the makeup table.~~

~~(I) This separation must apply only to human proximity to the makeup room and only at such time as there are explosives in the makeup room.~~

~~(II) When the makeup room does not contain explosives the separation tables must not apply.~~

~~(B) The concrete walls of the room are designed to withstand the explosion of the total amount of the referenced explosives.~~

~~(I) The concrete walls must be constructed in accordance with specifications designed and certified by a licensed engineer; or~~

~~(II) The concrete walls must be constructed to the specifications of Department of the Army TM5-1300 "Structures to Resist the Effects of Accidental Explosions" designed to produce walls which will withstand explosion of the referenced quantity explosives.~~

~~(C) The boxes of explosives awaiting makeup and the madeup explosives in avalanche control packs awaiting distribution are located behind separate concrete debris barrier walls which will~~

~~ensure that detonation of these explosives will not occur if the explosives at the makeup table detonate.~~

~~(I) The concrete debris barrier wall must be constructed in accordance with specifications designed and certified by a licensed engineer; or~~

~~(II) The concrete debris barrier wall must be constructed to the specifications of Department of the Army TM5-1300 "Structures to Resist the Effects of Accidental Explosions" to produce a barrier which will not allow detonation of the explosives awaiting makeup and distribution should the referenced quantity of explosives detonate.~~

~~(III) Access from the makeup table to the area behind the concrete debris barrier walls must not be doored. The concrete debris barrier walls will be designed so that the access way from the makeup table to the area behind the concrete debris barrier wall will deflect debris from an explosive blast by inherent design.~~

~~(D) The roof must be designed so that the resistance to an interior explosive blast will be negligible.~~

~~(iv) A full containment makeup room may be located anywhere and must meet the following requirements:~~

~~(A) The makeup room must be constructed in accordance with a licensed explosive engineer's approved design.~~

~~(B) The total amount of explosives in the room at any time must not exceed the design limit of the room.~~

~~(C) The makeup room cannot be used for storage.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-805, filed 8/1/17, effective 9/1/17; WSR 06-19-074, § 296-52-805, filed 9/19/06, effective 12/1/06.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-807 ((~~**Avalanche control blasting.**~~)) **Reserved.** ((~~(1) You must ensure that all members of avalanche control blasting crews are competent ski mountaineers in good physical and mental condition.~~

~~(2) Each avalanche control blasting crew or team must consist of a qualified and licensed blaster and at least one trained assistant.~~

~~(3) Untrained personnel may accompany blasting crews for training purposes but must not participate in actual firing of charges until trained and authorized.~~

~~(4) The blaster in charge of each crew or team must be responsible for all phases of preparation and placement of charges.~~

~~(5) Avalanche control blasting should be conducted during daylight hours whenever possible.~~

~~(6) Escape route.~~

~~(a) The avalanche control crew or team must preplan the escape route before igniting any charge.~~

~~(b) The escape route must be as safe and foolproof as possible and must culminate behind a terrain barrier or at least one hundred feet from the blast site by the time of detonation.~~

~~(7) Hand-thrown charges.~~

~~(a) A blaster must only work with one charge at a time.~~

~~(b) Before attaching the igniter, the blaster must:~~

~~(i) Be at the start of the escape route;~~

~~(ii) Check the runout zone for personnel;~~

~~(iii) Check the blast area for personnel.~~

~~(c) After the blaster attaches and activates the igniter:~~

~~(i) The blaster must check to see that the fuse is ignited;~~

~~(ii) If the fuse did not ignite, no attempt must be made to relight it. The blaster must immediately remove the fuse cap from the charge to sidearm it. The fuse cap must be treated as a misfire and be put in an appropriately safe place separate from all other explosive~~

~~components. It must not be approached for at least thirty minutes, after which time it must be properly disposed of;~~

~~(iii) The practice of double fusing hand charges must be allowed. An attempt must be made to light both fuses. If only one of the two fuses lights, the charge must be deployed as normal;~~

~~(iv) As soon as the fuse is ignited, the blaster must promptly throw the charge into the target area;~~

~~(v) All personnel must be in a safe place when the charge detonates.~~

~~(d) Where hand thrown charges will slide down the hill on hard frozen snow or ice surface, charges must be belayed with light cord.~~

~~(8) Hand charges thrown from ski lifts or trams.~~

~~(a) The number of charges thrown from ski lifts or trams must be kept to a minimum.~~

~~(b) The lift operating crew must be informed of the blasting plans.~~

~~(c) The lift crew must stand by for emergency procedures such as transfer of lift onto auxiliary power, evacuation, etc.~~

~~(d) The lift crew and the blaster in charge must be in direct radio contact at all times during the blasting operations.~~

~~(e) Only the avalanche control blasting crew and the essential lift operating personnel must be on a lift or tram during blasting operations.~~

~~(f) The avalanche control blasting crew must be traveling up slope when a charge is thrown.~~

~~(g) A charge must always be thrown down slope and to the side, away from towers, haulropes and other equipment or facilities.~~

~~(h) The minimum distance from the blast target to the closest point of the lift must be sixty feet.~~

~~(i) Hand charges must not exceed 4.5 pounds of TNT equivalent.~~

~~(j) Fuses must be timed and cut to such length that all personnel on the lift will have moved a minimum of three hundred feet from the blast target by the time of detonation.~~

~~(k) Precautions must be taken to avoid tossing charges into any of the lift equipment, moving chairs, cables, towers, etc.~~

~~(9) Aerial avalanche control blasting.~~

~~(a) Blasting from aircraft will require a written program approved by the Federal Aviation Administration and the director, or designee of the department of labor and industries.~~

~~(b) A written program must include the following:~~

~~(i) Written procedures to be followed including provisions for safety in the avalanche runout zone and emergency rescue plans.~~

~~(ii) Hand charge makeup and handling procedures.~~

~~(iii) The type of explosives to be used.~~

~~(iv) The qualifications of all avalanche control personnel involved in aerial blasting must meet the requirements of WAC 296-52-64030.~~

~~(v) The specific locations where aircraft blasting is to take place.~~

~~(c) An aerial avalanche control team must be established consisting of (at minimum) a pilot, a blaster in charge and an observer/controller.~~

~~(d) Blasting from an aircraft must require the blaster in charge to be a licensed avalanche blaster with an endorsement for aerial blasting. The blaster in charge will be on board during each aerial blasting mission.~~

~~**Note:** Blasting from aircraft should only be used when it is determined that conventional methods are not the safest means to mitigate the existing avalanche hazard.~~

~~(10) Avalauncher requirements.~~

~~(a) Management must develop a written training program and ensures that every person who will be authorized to work on an avalauncher firing team is thoroughly trained. Training must include:~~

~~(i) All operating instructions;~~

~~(ii) Safety precautions;~~

~~(iii) Emergency procedures;~~

~~(iv) Securing requirements for the equipment.~~

~~(b) You must have a list of authorized operators listed on a posted operator's list.~~

~~(c) Only trained and authorized personnel must be permitted to point and fire an avalauncher with explosive rounds.~~

~~(d) During firing of explosive loaded rounds, the firing team must consist of two qualified operators and not more than one adequately trained helper.~~

~~(e) Operators must have a current state blasting license.~~

~~(f) Each operator must individually check the elevation, pointing and pressure settings of the gun before each shot is fired.~~

~~(g) Operators must attempt to determine and record whether or not each round which is fired actually explodes on contact.~~

~~(h) The approximate location of all known misfired explosives (or duds) must be recorded.~~

~~(i) Initial shooting coordinates for each avalauncher mount must be made during periods of good visibility.~~

~~(j) Testing must include test firing in various wind conditions.~~

~~(k) The correct coordinates for the various conditions encountered must be carefully recorded.~~

~~(l) When spotter personnel are used in the target area, shooting must be conducted with nonexplosive projectiles.~~

~~(m) Firing of explosive avalauncher rounds must only be conducted when personnel are not in the target area.~~

~~(n) The avalauncher apparatus must be stored in a nonfunctional condition when not in use. This must be accomplished by:~~

~~(i) Locking out the firing mechanism or gas source in accordance with the lockout requirements of this chapter; or~~

~~(ii) Disassembly of functional components rendering the gun inoperable and separate storage of components removed; or~~

~~(iii) Removal of the entire gun to secure storage.~~

~~(o) With established avalauncher mounts, each autumn when reinstalling guns, the following procedures must be accomplished before the gun is considered operable:~~

~~(i) All components must be carefully inspected by qualified personnel;~~

~~(ii) After assembly and installation, the gun must first be test fired using a nonexplosive projectile;~~

~~(iii) The established firing coordinates must be checked by test firing.~~

~~(11) Cornice control requirements.~~

~~(a) Cornice buildup hazards must be evaluated regularly by qualified personnel, particularly after heavy snowfall periods which are accompanied by high wind or other snow transport weather conditions.~~

~~(b) Cornice hazards must be controlled whenever the buildup appears to offer potential hazard to areas accessible by personnel.~~

~~(c) The control team must establish the tension breakline of the cornice roof as accurately as conditions permit before starting any other control work on the cornice.~~

~~(d) The tension breakline must be marked when necessary.~~

~~(e) Small lightly packed cornices may be kicked off with a ski, ski pole, or shovel by an unbelayed control team member if the ridgeline can be clearly established and all work can be done from the safe side of the ridgeline.~~

~~(f) When working along an anticipated cornice breakline, control team members must retreat back from the breakline to change work positions rather than traverse along the breakline.~~

~~(g) The following factors must be given careful consideration before commencing control activities on any relatively larger cornice:~~

~~(i) The older and larger a cornice becomes, the more densely it compacts. Densely packed cornices release into larger blocks offering a higher level of danger to an extended runout zone. The control team leader must therefore take highest level of precautions to assure that the runout zone is clear of personnel;~~

~~(ii) Larger size cornices result in increased suspended weight and leverage which may cause the breakline release fracture to occur behind the actual ridgeline. The actual ridgeline may also be obscured by the simple mass of larger cornices. Control team members must stay off the cornice roof and must be protected by a secure belay when working near the suspected breakline;~~

~~(iii) All large cornices must be released by explosives. Explosives must be transported, made up and fired in accordance with the following requirements:~~

~~(A) The ignition system for single hand charge blasts must be safety fuse and cap or a system approved by the department.~~

~~(B) Detonating cord or shock tube must be used to connect multiple charge blasts.~~

~~(C) When detonating cord is used, one end must be securely anchored where premature cornice collapse will not disturb the anchor. The fuse and cap must be attached to the free end of the detonating cord after all charges are connected to the detonating cord.~~

~~(D) Safety fuse length must be sufficient to permit adequate escapement time for all personnel from the area influenced by the blast. Safety fuse must be not less than three feet long, approximately two minutes and twenty seconds, in all instances.~~

~~(h) Cornice control work on large cornices must be conducted during daylight hours and preferably during favorable weather conditions. As a minimum, clear visibility must exist across the full length of any cornice which the control team is attempting to release.~~

~~(12) Belaying practices.~~

~~(a) Belay rope must be standard 11 mm mountaineering rope or the equivalent.~~

~~(i) Belay rope must be inspected at not less than thirty-day intervals and maintained in excellent condition.~~

~~(ii) Defective belay rope must not be used for belaying purposes.~~

~~(b) Adequate trees or other suitable natural belay anchors must be used in preference to a human belay anchor when such natural anchors are available.~~

~~(c) The belay anchor position must be as near to ninety degrees from the tension breakline as the terrain conditions will permit.~~

~~(d) With either a natural belay anchor or human belay anchor, the belay line must be tended to keep slack out of the line.~~

~~(e) When either the belayed person or belay anchor needs to change position, the belayed person must retreat back from the cornice to a safe position until the belay anchor is reestablished.~~

~~(f) When a human belay anchor is used:~~

~~(i) The belay anchor person must establish the anchor position as far back away from the cornice as conditions permit;~~

~~(ii) The anchor person must remain in a seated position with their legs pointed toward the belayed person until such time as the belayed person has retreated back from the cornice to a position considered to be safe.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-807, filed 8/1/17, effective 9/1/17; WSR 06-19-074, § 296-52-807, filed 9/19/06, effective 12/1/06.]

AMENDATORY SECTION (Amending WSR 17-16-132, filed 8/1/17, effective 9/1/17)

WAC 296-52-809 ((~~**Retrieving misfired explosives (duds).**~~)) **Reserved.** ((~~(1) The following requirements must apply to all kinds of avalanche control blasting:~~

~~(a) Each person who ignites a charge or propels a charged projectile with any kind of apparatus must note whether or not the charge actually detonates.~~

~~(b) A conscientious effort must be made to promptly retrieve any misfired explosives.~~

~~(i) If conditions make it impractical or dangerous to promptly retrieve a misfired explosive, a search must be conducted as soon as conditions permit.~~

~~(ii) Any area which contains a misfired explosive must be closed to entry to all personnel except the search team until such time as the area has been searched and pronounced safe by the designated search leader.~~

~~(c) When searching for a misfired explosive on an uncontrolled avalanche slope (a slope which has not released), the procedures used must be consistent with good mountaineering practices.~~

~~(d) A hand charge misfire must not be approached for at least thirty minutes.~~

~~(c) A hand charge or avalauncher misfired explosive may be blown up with a secondary charge where they are found or may be disarmed at that location by fully trained and qualified personnel.~~

~~(f) Military warhead misfired explosives must not be moved. They must be blown up where they are found by secondary charges except that trained military personnel may disarm and transport such misfired explosives when approved by the governmental branch having jurisdiction.~~

~~(2) Records.~~

~~(a) Accurate records must be maintained for every explosive device which does not detonate.~~

~~(b) Misfired explosives records must include the following information:~~

~~(i) The suspected location;~~

~~(ii) A description of the misfired explosive;~~

~~(iii) The date the misfired explosive was lost;~~

~~(iv) The date the misfired explosive was found and disposed of.~~

~~(3) Misfired explosive frequency.~~

~~(a) Misfired explosive frequency should be maintained below one misfired explosive for every five hundred detonating attempts.~~

~~(b) All employers who do not maintain a misfired explosive frequency below one misfired explosive per five hundred detonation attempts must investigate all aspects of the blasting program and take prompt corrective actions as indicated.~~

~~(4) Misfired explosives warning signs.~~

~~(a) Requirements for warning signs. Ski area operations which use any form of explosive device for avalanche control must display warning, information placards and/or signs as found in this chapter, Part H.~~

~~(b) Signs must be posted at readily visible locations and in such a manner as to give both employees and the public ample opportunity to be informed of the potential existence of misfired explosive avalanche charges. Locations may include, but are not limited to:~~

~~(i) Ticket sales and lift loading areas;~~

~~(ii) Food and beverage service facilities;~~

~~(iii) Restrooms and locker rooms;~~

~~(iv) Safety bulletin boards;~~

~~(v) Along general access routes.~~

~~(c) Signs must be distinctive in appearance from the surrounding background where they are posted.~~

~~(d) Signs must be maintained in legible condition.~~

~~(c) Signs must include the following information:~~

~~(i) The word "WARNING" or "DANGER" at the top of the sign in the largest lettering on the sign;~~

~~(ii) The words "EXPLOSIVES ON THE MOUNTAIN";~~

~~(iii) A colored pictorial illustration which also provides information on dimensions of each type of explosive device used in the area;~~

~~(iv) The sign wording must conclude with specific instructions to be followed by anyone who locates an unexploded explosive device.~~))

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 17-16-132, § 296-52-809, filed 8/1/17, effective 9/1/17; WSR 06-19-074, § 296-52-809, filed 9/19/06, effective 12/1/06.]

NEW SECTION

WAC 296-52-8100 Storage, makeup, and use of explosives for avalanche control blasting. (1) The storage, handling, and use of explosives (including blasting agents) used in avalanche control practices must comply with this chapter and chapter 70.74 RCW.

(2) The minimum requirements published in chapter 296-52 WAC, Part H, apply to the storage, handling, and use of explosives (including blasting agents) in the endeavor of avalanche control.

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NEW SECTION

WAC 296-52-81010 Management responsibility. (1) Explosives (including blasting agents) must not be stored in any regularly occupied areas or buildings except in compliance with this chapter.

(2) Explosives (including blasting agents) must not be assembled or combined to form armed charges in any regularly occupied area or building except in compliance with this chapter.

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NEW SECTION

WAC 296-52-81020 Personnel. (1) Only fully qualified and licensed blasters must be permitted to assemble or arm explosives components.

(2) Training must include avalanche blasting experience so that the problems encountered in inclement weather blasting are known factors.

(3) All training activities must be conducted under the attended supervision of a fully qualified and licensed blaster.

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NEW SECTION

WAC 296-52-81030 Operational requirements. (1) Initiating systems for hand-placed or hand-thrown charges.

(a) ~~(a)~~ The ignition system on single-unit hand-thrown charges must:

(i) ~~consist of a~~be nonelectric, and

(ii) consist of cap and fuse system, or shock tube with a detonator sufficient to detonate the charge, and

(iii) use an~~d~~ approved ~~initiation system~~initiator, such as a pull igniter.

(b) Multiple units combined to form a single hand-placed charge may use the above system, an approved detonating cord system or shock

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7-27-2022, Added additional edits from Dan.

tube system. No other ignition system must be permissible without specific approval by the department.

(c) When using a shock tube system, after all charges are in place, connected to the shock tube trunk line and ready for initiation, the shock tube initiation tool may be attached for firing.

(2) Multiple charge blasts.

(a) Detonating cord or shock tube system must be used in lieu of blasting wire to connect multiple charge blasts.

(b) When using detonating cord systems, after all charges are placed, connected to the detonating cord, and the charges are ready to be ignited, a safety fuse and cap must be attached to the detonating cord. A fuse igniter may then be attached to ignite the safety fuse.

(3) Blasting caps must be ~~no larger than~~at least No. 8 except when recommended by the explosives manufacturer for a particular explosive used within a specific application.

(4) Electric blasting caps are not permitted.

(5) Safety fuse and shock tube.

(a) Only the highest quality safety fuse with excellent water resistance and flexibility must be used.

(b) Shock tube systems may be used in place of fuse cap and safety fuse systems.

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(6) Fuse length.

(a) Safety fuse length must be selected to permit the control team adequate escapement time from the blast area under all reasonable contingencies (falls, release of bindings, etc.).

(b) In no instance is a fuse length with less than 90 seconds burn time permitted.

(c) The burn time of each roll or lot of safety fuse must be checked prior to initial use or at least annually.

(d) Checked rolls must be marked with the tested burn time.

(e) It is recommended that all hand charges be prepared for ignition with double safety fuses and igniters whenever possible; however, one safety fuse and igniter are acceptable.

Notes: Standard safety fuse burns at a rate of 40 to 55 seconds per foot at 2,500 meters elevation. This rate equates to approximately twenty-four inches fuse length for 90 second hand charge fuse at normal avalanche control elevations.

Fuse burn rates should be checked prior to every use.

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NEW SECTION

WAC 296-52-81040 Explosives. Explosives chosen must have/be:

(1) A safe shelf life of at least one operating season in the storage facilities in which it will be stored.

(2) Excellent water and freezing resistance.

(3) Chosen for suitability and performance in their environment of use.

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NEW SECTION

WAC 296-52-81050 Transporting explosives and hand charges. (1) Hand charges or explosives components must be transported in:

(a) Employer approved avalanche control packs; or

(b) United States Department of Transportation-approved shipping containers; or

(c) Licensed magazines.

(2) Criteria for avalanche control packs. The pack must:

(a) Be constructed of water resistant material;

(b) Accommodate the separation of hand charges or explosives components from tools or other equipment by means of integrated compartments, or the use of separate compartments constructed of similar material;

(c) Ensure each compartment used for hand charges or explosives components has an independent closure means;

(d) Ensure that if fuse igniters will be permitted to be carried on the avalanche control pack, a separate compartment with individual closure means must be attached to the outside of the exterior of the pack for the igniters.

(3) Use of avalanche control packs.

(a) Packs must be inspected prior to loading, for holes or faulty compartment closures. Defective packs must not be used until adequately repaired.

(b) Tools or other materials must not be placed in any compartment which contains hand charges or explosives components.

(c) Fuse igniters:

(i) Must never be placed anywhere inside the pack when the pack contains hand charges or other explosives components;

(ii) May be carried in a separate compartment attached to the outside of the pack exterior but preferably in a compartment attached to the front of the carrying harness;

(iii) May be carried in a jacket pocket completely separate from the pack.

(d) Hand charges or explosives components:

(i) Must not be stored or left unattended in avalanche control packs;

(ii) Unused hand charges must be promptly disassembled at the end of individual control routes and all components returned to approved storage.

(e) Individual control team members must not carry more than 35 pounds of hand charges in avalanche control packs.

(f) A hand charge or cap and fuse assembly which has a fuse igniter attached must never be placed in an avalanche control pack for any reason.

(4) Whenever explosives or explosives components are transported in or on any vehicle powered by an internal combustion engine, provisions must be made to ensure the explosives or containers cannot come into contact with the hot exhaust system.

(5) Hand charges or explosives components must not be transported:

(a) In spark-producing metal containers; or

(b) On public roads and highways when such roads or highways are open to the public; or

(c) Out of compliance with United States Department of Transportation regulations for transport of explosive materials on public roads or highways.

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NEW SECTION

WAC 296-52-8200 Hand charge makeup methods. General. The department recognizes two makeup methods for hand charges for avalanche control blasting. The descriptions and requirements for each method are contained in this section.

Note: A well-designed and constructed hand charge makeup room can enhance the correct assembly of explosive components and reduce the incidences of misfires from incorrect makeup or moisture.

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NEW SECTION

WAC 296-52-82010 Blast site makeup. (METHOD 1)

(1) The ignition system must consist of the following, assembled, as recommended by the manufacturer:

(a) A nonelectrical blasting cap; and

(b) Highest quality water resistant safety fuse; and

(c) Shock tube, or detonating cord as needed.

(2) Detonating cord must be used to connect separated multiple-charge blasts.

(3) No other ignition system must be used on hand-placed or hand-thrown avalanche control charges unless variance is granted by the department.

(4) Caps must:

(a) Be installed on correct length fuses prior to being transported out onto control routes;

(b) Only be crimped with a crimper tool approved for that purpose.

(5) Assembling caps and fuses must be done in a warm, dry, well-lighted environment. The location used for assembly must not have flammable fuels, flammable gases, or explosives present where accidental detonation of the caps could create a secondary ignition or detonation hazard.

(6) Each cap must be physically protected from impact, crush and shock before being placed in an avalanche control pack for transportation.

(7) A fuse igniter must never be attached to a fuse until the fuse and cap assembly is installed in the hand charge at the blast site and the control crew is fully prepared to ignite the charge.

(8) All 1.1 explosives must be attended as defined in this chapter at all times when the explosives are out of the magazines.

(9) Disbursement of explosive charges from magazines into avalanche control packs must be done outside the magazine. Records must be maintained for all explosives disbursed.

(10) Caps, cap and fuse assemblies, armed hand charges, or fuse igniters must not be carried into or stored in magazines which contain 1.1 explosives.

Note: A "make-up-area" may be used if it temporarily meets the intended protection of a make-up room, or Method 2.

For Example: A patrol facility at the top of a lift that has not been opened to the public, contains only authorized personnel, and meets the code requirements regarding power sources, heating, lighting, open flames, and other sources of possible ignition.

The make-up-area provides for protection from the environment during charge preparation and loading of control packs. It would be prohibited from that use when the lift was opened to the public or did not meet table of distances in some other manner.

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NEW SECTION

WAC 296-52-82020 Hand charge makeup room. (METHOD 2)

This method is different from Method 1 primarily in that the fuse and cap assembly is installed in the explosive charge while inside a special makeup room.

(1) General.

(a) The makeup room cannot be used for storage.

(b) When explosives are present in the makeup room, entry into the makeup room must be restricted to trained and authorized personnel.

(c) The access door(s) to the makeup room must be kept locked or bolted from the inside while employees are assembling explosives.

(d) The entire makeup room must be kept clean, orderly, and free of burnable rubbish.

(e) Brooms and other cleaning utensils must not have any spark-producing metal parts if used when explosives are present.

(f) Sweepings and empty explosives containers must be disposed of as recommended by the explosives supplier.

(g) Repair activities which utilize spark-producing tools must not be conducted on any part of the makeup room while explosives are present.

(2) Storage of explosives. Makeup rooms:

(a) Must not be used for the unattended storage of 1.1 explosives;

(b) May contain a Type 3 storage magazine for 1,000 or less blasting caps if the:

(i) Room meets all requirements of this chapter; and

(ii) Type 3 storage is constructed according to the requirements in WAC 296-52-6400 and licensed.

(3) Restrictions.

(a) A sign stating the occupancy rules must be posted inside the makeup room where it is clearly legible upon entering the room. The sign must post the following rules:

(i) Occupancy must be restricted to specifically authorized personnel;

(ii) Smoking, matches, flame- or spark-producing devices, tools or equipment must not be permitted in the room at any time when explosives or explosive components are present; and

(iii) Flammable fuels or compressed gases must not be permitted inside the room nor stored within 50 feet of the room.

(b) The makeup room must be equipped with a portable fire extinguisher of at least 2A-20BC rating.

(4) The assembly procedure must be as follows:

(a) Install caps on correct length fuses with an approved crimper tool before explosives are brought into the makeup room.

(b) The cap and fuse assemblies must not be combined with explosives to form hand charges until just before the intended time of distribution.

(c) Only nonsparking skewers must be used to punch holes in an explosives cartridge.

(d) The fuse must be laced or taped in position after inserting the cap in the charge.

(e) Each hand charge must be placed in an explosives box or avalanche control pack immediately after assembly is completed.

(f) No spark-producing metal tools must be used to open explosives containers.

(g) Fuse igniters must never be attached to a fuse or a hand charge until the hand charge is at the blast site and the control crew is fully prepared to ignite the charge.

(5) Location.

(a) The makeup room must be located in accordance with the American Quantity and Distance Separation Tables as adopted in chapter 70.74 RCW, Washington State Explosives Act and this chapter except under conditions as indicated in this section.

(b) This separation must apply only to human proximity to the makeup room and only at such time as there are explosives in the makeup room.

(c) When the makeup room does not contain explosives, the separation tables do not apply.

(d) Where locating the makeup room in accordance with the quantity and distance separation table is impractical because of bad

weather accessibility, rough terrain, or space availability the facility must be located at the safest possible location within the limitation of the area which is the most isolated from assembly areas and buildings that are inhabited with application of additional protection measures such as (not an all-inclusive list):

(i) Berming.

(ii) Locating natural obstructions or buildings that are not inhabited between the makeup room and assembly areas and buildings that are inhabited.

(iii) Concrete/debris barrier.

(6) Interior finish. The inside of all makeup rooms must be finished and equipped to the following minimum requirements:

(a) Construction must be fire resistant and nonsparking up to the top of the walls. Nails or screws must be countersunk, blind nailed, or covered.

(b) Lighting must be by N.E.C. explosion-proof rated fixtures and all wiring must be in sealed conduit.

(i) Control switches must be outside the makeup room.

(ii) No electrical outlet boxes are permissible inside the room.

(7) Heating units must be limited to:

(a) Forced air systems with the heating unit located outside the room.

(b) Steam systems of 15 psig or less.

(c) Hot water systems of 130°F or less.

(d) The radiant heating coils and piping for steam or hot water systems must be protected so that explosives cannot come into contact with them.

(e) Heating ducts must be installed so that the hot air does not discharge directly on explosives.

(f) The heating system used in a makeup room must have controls which prevent the ambient room temperature from exceeding 130°F.

(8) Ventilation.

(a) The makeup room must be equipped with a ventilation system capable of maintaining a minimum rate of three air exchanges per hour during all times when explosives are present in the room.

(b) Fans and controls must be located outside the makeup room and must be of a type approved for this service.

(c) The lighting circuit control must also activate the ventilation fan and the ventilation fan must be operated whenever personnel are in the room.

(d) Exhaust ventilation must be arranged to discharge into outside air, not into an enclosed structure.

(e) The floor or exterior walls may be constructed with duct openings for heating and ventilation purposes provided that:

(i) Each duct opening is not greater in volume than 72 square inches; and

(ii) The combined number of duct openings does not exceed three; and

(iii) Duct openings are located within 12 inches of the floor or ceiling; and

(iv) Exhaust duct opening are not located on the wall above the makeup workbench.

(9) A makeup room that must be located closer than specified in Part E may require full containment design to meet safety standards. These designs are made to either:

(a) Contain the blast of an unplanned detonation entirely within the structure; or

(b) Channel the blast away from populated areas in a direction which must remain off limits to all persons while there are explosives within the structure.

(c) Full containment designs meeting the following requirements will be authorized:

(i) The makeup room must be constructed in accordance with a registered professional engineer's approved design; and

(ii) The total amount of explosives in the room at any time must not exceed the design limit of the room; and

(iii) The walls of the room must be concrete unless specified otherwise by an engineer, and:

(A) Designed to withstand the explosion of the total amount of the referenced explosives; and

(B) Constructed in accordance with specifications designed and certified by a licensed engineer; or

(C) Constructed to the specifications of Department of the Army TM5-1300 "Structures to Resist the Effects of Accidental Explosions" designed to produce walls which will withstand explosion of the referenced quantity explosives.

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NEW SECTION

WAC 296-52-8300 Avalanche control blasting. The practices involved with avalanche control allow for multiple delivery methods, including hand charges to be placed or thrown; the blaster must consider the hazard of exposure to slope risk and the potential for thrown or placed charges to slide or move downhill from their intended target. Control plans must include how these exposures are to be mitigated.

(1) The employer must ensure that all members of avalanche control blasting crews are in good physical and mental condition.

(2) Each avalanche control blasting crew or team must consist of a qualified and licensed blaster and at least one trained assistant.

(3) Untrained personnel may accompany blasting crews for training purposes but must not participate in actual firing of charges until trained and authorized.

(4) The blaster in charge of each crew or team must be responsible for all phases of preparation and placement of charges. The blaster in charge must keep a record that meets the requirements of WAC 296-52-3035 (3)(b).

(5) Avalanche control blasting should be conducted during daylight hours whenever practical.

(6) Escape route.

(a) The avalanche control crew or team must preplan the escape route before igniting any charge.

(b) The escape route must be as safe and foolproof as possible and must culminate behind a terrain barrier or out of the area of influence.

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NEW SECTION

WAC 296-52-83010 Hand-thrown charges. (1) A blaster must only work with one charge at a time.

(2) Before attaching the igniter, the blaster must:

(a) Be at the start of the escape route;

(b) Check the runout zone for personnel;

(c) Check the blast area for personnel.

(3) After the blaster attaches and activates the igniter:

(a) The blaster must check to see that the fuse is ignited;

(b) If the fuse did not ignite:

(i) No attempt must be made to relight it.

(ii) The blaster must immediately remove the fuse cap from the charge to disarm it.

(iii) The fuse cap must be treated as a misfire and be put:

(A) An appropriately safe distance; and

(B) Separate from all other explosive components; and

(C) Not approached for at least 30 minutes, after which time it must be properly disposed of.

(c) The practice of double fusing hand charges must be allowed. An attempt must be made to light both fuses. If only one of the two fuses lights, the charge must be deployed as normal;

(d) As soon as the fuse is ignited, the blaster must promptly throw the charge into the target area;

(e) All personnel must be in a safe place when the charge detonates.

(4) Hand charges thrown from ski lifts or trams.

(a) The number of charges thrown from ski lifts or trams must be kept to a minimum.

(b) The lift operating crew must be informed of the blasting plans.

(c) The lift crew must stand by for emergency procedures such as transfer of lift onto auxiliary power, evacuation, etc.

(d) The lift crew and the blaster in charge must be in direct radio contact at all times during the blasting operations.

(e) Only the avalanche control blasting crew and the essential lift operating personnel must be on a lift or tram during blasting operations.

(f) The avalanche control blasting crew must be traveling up slope when a charge is thrown.

(g) A charge must always be thrown down slope and to the side, away from towers, haulropes and other equipment or facilities.

(h) The minimum distance from the blast target to the closest point of the lift must be 60 feet.

(i) Hand charges must not exceed five pounds of TNT equivalent.

(j) Fuses must be timed and cut to such length that all personnel on the lift will have moved a minimum of 300 feet from the blast target by the time of detonation.

(k) Precautions must be taken to avoid tossing charges into any of the lift equipment, moving chairs, cables, towers, etc.

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NEW SECTION

WAC 296-52-83020 Avalaunchers. (1) Management must develop a written training program and ensure that every person who will be

authorized to work on an avalauncher firing team is thoroughly trained. Training must include:

(a) All operating instructions;

(b) Safety precautions;

(c) Emergency procedures;

(d) Securing requirements for the equipment.

(2) The employer must have a list of authorized operators listed on a posted operator's list.

(3) Only trained and authorized personnel are permitted to point and fire an avalauncher with explosive rounds.

(4) During firing of explosive loaded rounds, the firing team must consist of two qualified operators and not more than one adequately trained helper.

(5) Operators must have a current state blasting license.

(6) Each operator must individually check the elevation, pointing and pressure settings of the gun before each shot is fired.

(7) Operators must attempt to determine and record whether or not each round which is fired actually explodes on contact.

(8) The approximate location of all known misfired explosives (or duds) must be recorded as required by WAC 296-52-8500(2).

(9) Initial shooting coordinates for each avalauncher mount must be made during periods of good visibility.

(10) Testing must include test firing in various wind conditions.

(11) The correct coordinates for the various conditions encountered must be carefully recorded.

(12) When spotter personnel are used in the target area, shooting must be conducted with nonexplosive projectiles.

(13) Firing of explosive avalauncher rounds must only be conducted when personnel are not in the target area.

(14) The avalauncher apparatus must be stored in a nonfunctional condition when not in use. This must be accomplished by:

(a) Locking out the firing mechanism or gas source in accordance with the lockout requirements of this chapter; or

(b) Disassembly of functional components rendering the gun inoperable and separate storage of components removed; or

(c) Removal of the entire gun to secure storage.

(15) With established avalauncher mounts, each autumn when reinstalling guns, the following procedures must be accomplished before the gun is considered operable:

(a) All components must be carefully inspected by qualified personnel;

(b) After assembly and installation, the gun must first be test fired using a nonexplosive projectile;

(c) The established firing coordinates must be checked by test firing.

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NEW SECTION

WAC 296-52-83030 Cornice control. (1) Cornice hazards may be mitigated using explosive control methods.

(a) Control teams for explosive cornice control must follow best practices for avalanche control teams outlined in other sections of this document and have training and experience specific to cornices and their characteristics.

(b) Charges may be:

(i) Placed on the cornice; or

(ii) Belayed into a position below the cornice using appropriately sized material; or

(iii) Buried in the cornice.

(c) Multiple charges may be linked to detonate together provided best practices for cornice safety, blast site control, make-up methods, and ignition procedures are followed.

Note: Special attention should be paid to ensuring all charges are accounted for in the case of a misfire due to the possibility that the falling cornice could move a charge downhill.

(2) Cornice control work should be conducted during daylight hours and under favorable weather conditions whenever practical. As a minimum, clear visibility should exist for the section of cornice under question and the runout zone below.

(3) The control team must establish the tension breakline of the cornice roof as accurately as conditions permit before starting any other control work on the cornice.

(4) The tension breakline must be marked when necessary.

(5) Small lightly packed cornices may be kicked off by an unbelayed control team member using a:

(a) Ski; or

(b) Ski pole; or

(c) Shovel.

(d) Under the following conditions:

(i) The ridgeline can be clearly established; and

(ii) All work can be done from the safe side of the ridgeline.

(6) When working along an anticipated cornice breakline, control team members must retreat back from the breakline to change work positions rather than traverse along the breakline.

(7) The following factors must be given careful consideration before commencing control activities on any relatively larger cornice:

(a) The older and larger a cornice becomes, the more densely it compacts. Densely packed cornices release into larger blocks offering a higher level of danger to an extended runout zone. The control team leader must therefore take highest level of precautions to assure that the runout zone is clear of personnel;

(b) Larger size cornices result in increased suspended weight and leverage which may cause the breakline release fracture to occur behind the actual ridgeline. The actual ridgeline may also be obscured by the simple mass of larger cornices. Control team members must stay off the cornice roof and must be protected by a secure belay when working near the suspected breakline;

(c) All large cornices must be released by explosives. Explosives must be transported, made up and fired in accordance with the following requirements:

(i) The ignition system must be a system approved by the department as outlined in WAC 296-52-82010.

(ii) Detonating cord or shock tube must be used to connect multiple charge blasts.

(iii) When detonating cord is used:

(A) One end must be securely anchored where premature cornice collapse will not disturb the anchor.

(B) The ignition system must be attached to the free end of the detonating cord only after all charges are connected to the detonating cord.

(iv) Safety fuse length must:

(A) Be sufficient to permit adequate escapement time for all personnel from the area influenced by the blast; and

(B) Not be less than 90 seconds.

(v) The use of shock tube is also acceptable from a safe location.

(8) Cornice control work on large cornices must be:

(a) Conducted during daylight hours; and

(b) Preferably during favorable weather conditions.

(9) As a minimum, clear visibility must exist across the full length of any cornice which the control team is attempting to release.

[]

NEW SECTION

WAC 296-52-83040 Belaying practices. (1) Appropriate belay techniques and hardware must be used to provide safety for team members while engaged in belaying activities.

(2) Team members engaged in such practices must have training and experience specific to these activities.

(3) Belay rope and hardware must be:

(a) Mountaineering type or the equivalent, sized appropriately to the task and the fall exposure;

(b) Be inspected for defects and damage before and after each use. Ropes must be removed from service immediately upon discovery of defect or damage that compromises the integrity of the rope.

(4) Belay anchors.

(a) Natural; such as healthy trees of appropriate size, stable rocks or rock outcroppings.

(b) Artificial; such as snow pickets, dead-man anchors, pitons, expansion bolts, or other mountaineering tools used as intended and with best practices.

(c) Positional; such as when the belayer uses terrain and body mechanics to create a stable belay position.

(5) With either a natural belay anchor or human belay anchor, the belay line must be tended to keep slack out of the line.

(6) When either the belayed person or belay anchor needs to change position, the belayed person must retreat back from the cornice to a safe position until the belay anchor is reestablished.

(7) When a human belay anchor is used:

(a) The belay anchor person must establish the anchor position as far back away from the cornice as conditions permit.

(b) The anchor person must remain in a seated position with their legs pointed toward the belayed person until such time as the belayed person has retreated back from the cornice to a position considered to be safe.

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NEW SECTION

WAC 296-52-8400 Aerial avalanche control blasting. Aerial avalanche control work requires many of the same safe handling and control of explosives detailed in Part C of this chapter combined with enhanced specific procedures outlined by the Federal Aviation Administration (FAA) Avalanche Control Manual.

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NEW SECTION

WAC 296-52-84010 Programs. (1) Blasting from aircraft requires a written program approved by the FAA and the director, or designee of the department of labor and industries.

(2) A written program must include the following:

(a) Written procedures to be followed including provisions for safety in the avalanche runout zone and emergency rescue plans;

(b) Hand charge makeup and handling procedures;

(c) The type of explosives to be used;

(d) The qualifications of all avalanche control personnel involved in the aerial blasting, which must meet the requirements of WAC 296-52-23020(3);

(e) The specific locations where aircraft blasting is to take place.

[]

NEW SECTION

WAC 296-52-84020 Limitations. (1) These operations from aircraft are only conducted when it has been determined that existing avalanche hazard mitigation techniques would:

(a) Be ineffective or infeasible; or

(b) Present an unacceptable level of risk to the avalanche control personnel.

(2) No person may be carried in an aircraft carrying hazmat for the purpose of avalanche mitigation and control unless that person is:

(a) A required flight crewmember; or

(b) An FAA inspector; or

(c) Necessary for the safe handling and/or dispensing of the explosives and associated hazardous materials; or

(d) A licensed avalanche control blaster who is in training to become aerial blasting certified.

(3) An aerial avalanche control team must be established consisting of (at minimum) a pilot, a blaster in charge and an observer. If training is being conducted, or the mission warrants an additional member, a third qualified avalanche control member is allowed as the controller.

(4) Blasting from an aircraft requires a designated blaster in charge. That individual:

(a) Must be a licensed avalanche user (blaster) with an endorsement for aerial blasting;

(b) Must be on board during each aerial blasting mission;

(c) May assume any role appropriate to the mission but remains responsible for all blasting activities related to that mission, including blast zone security.

(5) All explosives and associated hazmat must be handled by, and at all times be under the control of, a qualified user (blaster) who must be:

(a) Licensed by the department of labor and industries;

(b) Trained and experienced in dispensing explosive charges;

(c) Carried in the aircraft whenever explosives and associated hazardous materials are aboard the aircraft for the purpose of avalanche control.

Note: The aircraft operator generally assumes no responsibility for the storage, handling, or assembly of explosives.

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NEW SECTION

WAC 296-52-84030 Aerial avalanche mitigation and control operations. (1) Preflight.

(a) Only authorized personnel will be allowed in the aircraft staging and control area during all phases of the avalanche mitigation and control operation.

(b) A safety briefing will be conducted by the avalanche control team to discuss all aspects of the planned avalanche mitigation and control operation. The briefing must include the following:

(i) Overall avalanche target areas;

(ii) Ground handling and loading procedures for personnel and explosives;

(iii) Types of associated hazardous materials and fuses;

(iv) Communication procedures;

(v) Current and forecasted weather conditions;

(vi) Handling and ignition procedures;

(vii) Placement and dispensing procedures;

(viii) Special hazards such as misfires;

(ix) Aircraft malfunctions;

(x) Emergency procedures.

(c) Prior to loading explosives an aerial and ground (where appropriate) reconnaissance must be conducted by the avalanche control team or at a minimum, the pilot and blaster in charge. The following should be observed:

(i) Any hazards to flight in the staging areas, take-off or landing areas, and enroute or drop zones, e.g., obstructions, wires, or loose debris.

(ii) Determine that approach, departure, and transition routes remain clear of all unassociated activities.

(iii) Avalanche chutes that are subject mitigation and control, and any that may be affected by such operations, should be assessed to ensure the primary area and any sympathetic release area will not cause undue hazard to persons or property.

(iv) Emergency landing areas in the event of an aircraft emergency.

(v) Emergency landing areas in the event of a problem with the explosives.

(vi) Determine safe areas for the aircraft where the effects of the blast and the resulting avalanche release can be observed.

(d) Loading of explosives must be:

(i) Done under the direct supervision of the pilot and blaster in charge with minimum personnel;

(ii) Loaded into the rear of the aircraft;

(iii) Ammonium nitrate and fuel oil (ANFO) mixture may be transported in original packaging.

Note: Identification labels should be utilized for all prepared charges. Labels should be consistent with hazardous material placards for shape and information, and should identify parcels as "Danger, Explosives."

(iv) Fuse igniters must be kept in a separate location from the explosives and controlled by the observer.

(v) Stored in a manner that emergency mass deployment (jettison) is possible.

(e) After loading of explosives.

(i) During travel to target areas, additional reconnaissance special attention may be performed to assure the absence of personnel from the hazard areas, e.g., hikers, skiers, snowmobiles, road traffic, etc.

(ii) If necessary, personnel will be placed around the hazard areas as guards to assure that nonassociated personnel do not inadvertently enter the area.

(2) During flight.

(a) Dispensing explosives:

(i) Must be accomplished from an altitude above ground level that is low enough to assure accurate placement of charges but high enough to avoid obstacles.

(ii) The cabin door from which explosives will be dispensed from should be a sliding door or it should be removed prior to avalanche control mitigation operations.

(iii) The avalanche control team will consist of, and assume the following responsibilities:

(A) Pilot:

(I) Flies the aircraft and coordinates the flight path regard to speed, altitude and flight track with the controller for placement of explosive charges; and

(II) Is responsible for all safety of flight decisions.

(B) Blaster in charge:

(I) Is primarily responsible for safely igniting and dispensing the explosive charges; and

(II) Communicates directly with the pilot for all instructions involving igniting and dispensing the explosives; and

(III) Communicates with the pilot to receive permission to open and close the cabin door; and

(IV) May assume either/both blaster in charge or controller responsibilities; or, may delegate the role of controller; and

(V) If dispensing explosives, must be tethered with self-belayed with an approved mountaineering sling and seat harness; which may be adjustable.

(C) Observer:

(I) Typically, rides in the rear of the aircraft next to the blaster in charge, with the explosives on the opposite side of the observer (away from blaster in charge); and

(II) Has a primary responsibility to maintain positive control of the explosive charges, fuse igniters, and handing assembled charges to the blaster in charge; and

(III) Monitors fuse ignition, and dispensing of each explosive charge; and

(IV) Verbally accounts for any remaining unused charges to the avalanche control team.

(D) Controller (optional):

(I) Communicates with the other team members if and as needed; and

(II) Is responsible to document and record all avalanche mitigation and control operations; and

(III) Communicates an estimate timing of charge deployment, and fuse burn times.

(b) Communication is essential during the aerial avalanche mitigation and control operations.

(i) A voice operated exchange (VOX) radio arrangement should be used between the pilot and the avalanche control team.

(ii) Key terms and timing sequence of operations must be:

(A) Coordinated and agreed to prior to the start of flights; and

(B) Documented in writing; and

(C) Practiced.

(iii) An example of a typical operation's communication follows:

(A) Following reconnaissance of the avalanche hazard area, the controller guides the pilot into position and identify the target(s).

(B) If the aircraft does not have the cabin door removed, the blaster in charge requests clearance from the pilot to open and secure the sliding cabin door.

(C) The controller announces the number of charges planned in the upcoming pass to the avalanche control team.

(D) The observer then passes an explosive charge, ready for ignition and deployment, to the blaster in charge.

(E) The controller makes a final visual inspection of the target area and calls out "READY."

(F) The blaster in charge has the explosive charge secured, places the igniter on the fuse and announces "IGNITOR ON."

(G) The blaster in charge pulls the cords to activate the fuse igniters, and when activated announces, "FUSE LIT." (The observer

confirms that the fuses are burning and that the remaining charges are not affected.)

(H) The blaster in charge immediately dispenses the charge forward, out and away from the aircraft and then sounds off with "CLEAR" or "BOMBS AWAY."

(I) If both fuses of an explosive charge fail to ignite, "MISFIRE" is announced.

(c) Misfired charges are an immediate danger requiring the following procedures:

(i) No relight is attempted; and

(ii) If practical, the charge may be disarmed by cutting the detonating cord between the charge and the fuses, and the fuse/cord assembly jettisoned from the aircraft; or

(iii) The entire charge may be jettisoned with location noted.

(iv) If the misfire results in a dud, the location is recorded and marked for future retrieval or reporting as required by WAC 296-52-8500(2).

(v) If practical, and after at least 30 minutes has elapsed since the misfire was jettisoned and resulted in a dud, a second charge may be dispensed on top of the dud in an effort to detonate it in place.

(d) At the end of the aircraft's blasting run, the aircraft is flown to the designated safe area and the results are observed and recorded by the avalanche control team.

(e) A record must be kept of all misfires that resulted in duds as required by WAC 296-52-8500.

(f) The blaster in charge will be responsible for notifying the department of labor and industries and the Bureau of Alcohol, Tobacco, and Firearms, within 24 hours as required by WAC 296-62-8500 (2)(c).

(g) In the event of a malfunction with the explosive components or the aircraft, and at the discretion of the blaster in charge or the pilot discretion respectively, the blaster in charge and observer will jettison all remaining explosives and follow the procedures for reporting to the department listed above.

(h) These procedures are repeated until a reload is necessary or the avalanche hazard reduction has been accomplished.

(3) Post flight.

(a) Unused explosives are disassembled and returned to the magazine(s).

(b) The avalanche control team will conduct a post flight briefing to discuss:

(i) The conduct and success of the mission with the customer; and

(ii) Any safety improvements that may be helpful for future missions.

(c) The mission must be fully documented and inventories confirmed.

[]

NEW SECTION

WAC 296-52-84040 Emergency procedures. (1) The following emergency procedures are in addition to those outlined in the aircraft flight manual.

(a) Armed charges inside the aircraft.

(i) Secure the charge and expel, if possible.

(ii) If necessary, land in a predetermined emergency landing area, secure the charge, and disarm or expel.

(b) Armed charge lodged outside the aircraft. If an armed charge does not clear the aircraft, land immediately, dislodge the charge, and disarm or expel.

(c) Fire. In the event of a fire in flight or on the ground, expel all explosives.

(d) In-flight malfunctions.

(i) Expel all explosives at the discretion of the pilot.

(ii) The pilot will give the command "JETTISON JETTISON" over the intercom if he deems it necessary to expel all explosives from the aircraft.

(2) Recording jettison areas.

(a) Every reasonable attempt will be made to record the location of all charges expelled (jettisoned) from any aircraft.

(b) This information will be reported to the department within 24 hours as required by WAC 296-52-8500 (2)(c).

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NEW SECTION

WAC 296-52-84050 Aerial charge composition. (1) Explosive charges used in aerial blasting are cast primers, gelatin, or an ammonium nitrate and fuel oil (ANFO) packages fitted with a cast primer and detonating cord.

(2) Explosive charges will be detonated by cap and fuse assemblies.

(3) The cap and fuse assemblies are initiated by pull cord fuse igniters.

(4) All preparation and handling of these standard aerial avalanche control explosive components will conform to the safety standards set forth previously in this chapter.

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NEW SECTION

WAC 296-52-84060 Specific explosive safety precautions. (1) Explosives used for aerial blasting should be:

(a) Industrial primers that consist mainly of TNT or gelatin, or are ammonium nitrate and fuel oil (ANFO) mixture in a package with a cast primer and detonating cord; and

(b) Stable enough to have a shelf life in normal storage of at least one operating season; and

(c) Resistant to water and cold temperatures; and

(d) Used only within the temperatures recommended by the manufacturer.

Note: Dynamite should not be used due to its instability and impact sensitivity.

(2) Detonating systems should:

(a) Consist of a blasting cap and safety fuse directly attached to the detonating cord of the charge; and

(b) Be as simple as possible, blasting cap, safety fuse, and fuse igniter; and

(c) Use two systems (double cap and fuse assembly) if possible to minimize misfires; and

(d) Use blasting caps at least size #8; and

(e) Be protected from external shock during flight maneuvers; and

(f) Electric blasting caps will not be used.

(3) Safety fuse should:

(a) Be only the highest quality safety fuse which has excellent water resistance and flexibility.

(b) Burn between 40-55 seconds per foot. A section of fuse should be tested after purchase and before each use to confirm burn rate.

(c) Be long enough to allow a minimum burning time of at least 90 seconds, as stated in the National Ski Area Association (NSAA) 2015 Avalanche Blasting Resource Guide (pages 17-18).

(4) Preparation of explosive charges.

(a) Blasting caps will be crimped onto the safety fuse only with special crimper tools.

(b) Fuse and blasting cap assemblies should be fastened or taped securely to the explosive charge to prevent misfires due to accidental separation of the initiation system from the charge.

(c) Charges should be armed with caps as late as possible in the control operation.

(d) The igniter should not be attached to the safety fuse until the aircraft is in the avalanche mitigation and control area and is ready to dispense the charge.

Note: The safety data sheets (SDS) for fuse igniters states that the act of attaching the fuse igniter to the safety fuse could light the safety fuse. For this reason, the fuse igniter should be placed on the safety fuse after the cabin door is opened and no more than 20 seconds before the fuse is lit and the explosive charge is dispensed from the aircraft.

(5) Igniting the explosive charge.

(a) Aircraft should be in the avalanche mitigation and control area prior to attaching the igniter to the safety fuse; and

(b) When using a double fuse assembly, ensure sufficient fuse is attached to allow a minimum of 90 seconds fuse burning time, as stated in the NSAA 2015 Avalanche Blasting Resource Guide (pages 17-18).

(6) Explosive charge placement.

(a) Charges will be dispensed from the aircraft as described in WAC 296-52-81030(2).

(b) After completion of the avalanche mitigation and control pass, the aircraft will position itself at a safe stand-off distance and altitude to observe the results of the dispensed explosive charge.

(c) The explosive charge must not have anything attached to it that might cause it to become entangled with the aircraft as it is being dispensed.

(7) Misfires:

(a) Will not be relighted; and

(b) Will be jettisoned from the aircraft and their location recorded as required by WAC 296-52-8500 (2)(c).

(c) If time permits, the blaster in charge should attempt to place the misfire close to an easily recognized dominant geographic terrain feature to aid in its retrieval.

(d) All necessary precautions will be taken to guarantee a safe entry to the slope by the avalanche control team.

(e) The blaster in charge is responsible for notifying the department of labor and industries, within 24 hours, of any misfire/dud incidents including how many and their locations.

Note: The aircraft operator assumes no responsibility for the retrieval or recovery of misfires or duds. That is the responsibility of the avalanche control team.

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NEW SECTION

WAC 296-52-8500 Misfired/lost explosives. (1) The following requirements apply to all kinds of avalanche control blasting:

(a) Each person who ignites a charge or propels a charged projectile with any kind of apparatus must note whether or not the charge actually detonates.

(b) A conscientious effort must be made to promptly retrieve any misfired explosives.

(i) If conditions make it impractical or dangerous to promptly retrieve a misfired explosive, a search must be conducted as soon as conditions permit.

(ii) Any area which contains a misfired explosive must be closed to entry to all personnel except the search team until such time as the area has been searched and pronounced safe by the designated search leader.

(c) When searching for a misfired explosive on an uncontrolled avalanche slope, a slope which has not released, the procedures used must be consistent with industry best practices.

(d) A hand charge misfire must not be approached for at least 30 minutes.

(e) A hand charge or avalauncher misfired explosive may be:

(i) Blown up with a secondary charge where they are found; or

(ii) Disarmed at that location by personnel specifically trained and qualified in the use of the avalauncher.

(f) Military warhead misfired explosives must:

(i) Not be moved or touched by anyone other than trained military personnel of the governmental branch having jurisdiction; and

(ii) Be detonated where they are found by secondary charges if possible; or

(iii) Disarmed and transported only as required for safety and approved by the governmental branch having jurisdiction.

(2) Records and notification.

(a) Accurate records must be maintained for every explosive device which does not detonate.

(b) Records of misfired explosives must include the following information:

(i) The suspected location;

(ii) A description of the misfired/lost explosive; and

(iii) The date the explosive was misfired/lost; and

(iv) The date the misfired explosive was found and disposed of.

(c) Misfires not cleared and charges lost in the firing process more than 24 hours must:

(i) Be reported to the department as required in WAC 296-52-3035(2) with the information listed above; and

(ii) Added to a consolidated monthly report which contains the information of all such charges dispensed under the license by the responsible person or any employee until the charges are recovered and/or destroyed.

(d) Monthly reports must be submitted to the department by the 10th of each month.

(3) Misfired explosive frequency.

(a) Misfired explosive frequency should be maintained below one misfired explosive for every 500 detonating attempts.

(b) All employers who do not maintain a misfired explosive frequency below one misfired explosive per 500 detonation attempts must:

(i) Investigate all aspects of the blasting program; and

(ii) Report findings to the department; and

(iii) Take prompt corrective actions as indicated.

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NEW SECTION

WAC 296-52-85010 Warning signs for typical avalanche control devices (duds). (1) Misfired explosives warning signs.

(a) Avalanche control area operations which use any form of explosive device for avalanche control must display warning signs, information placards and/or signs as found in this section.

(b) Signs must be posted at readily visible locations and in such a manner as to give both employees and the public ample opportunity to be informed of the potential existence of misfired explosive avalanche charges. Locations may include, but are not limited to:

(i) Ticket sales and lift loading areas;

(ii) Food and beverage service facilities;

(iii) Restrooms and locker rooms;

(iv) Safety bulletin boards;

(v) Along general access routes.

(c) Signs must be:

(i) Distinctive in appearance from the surrounding background where they are posted; and

(ii) Maintained in legible condition.

(d) Signs must include the following information:

(i) The word "WARNING" or "DANGER" at the top of the sign in the largest lettering on the sign;

(ii) The words "EXPLOSIVES ON THE MOUNTAIN";

(iii) A colored pictorial illustration which also provides information on dimensions of each type of explosive device used in the area;

(iv) Sign wording must conclude with specific instructions to be followed by anyone who locates an unexploded explosive device;

(v) Have a 24-hour contact telephone number that is checked at least once per day including weekends.

(2) The following signs are acceptable for use to warn the public that misfired charges may be present in an area:

Note: More than one sign may be necessary. The area should be marked with the types of signs appropriate to the hazards present.

Figure H-1:

DANGER!
EXPLOSIVES ON THE MOUNTAIN!

Unexploded warheads, projectiles, or hand charges used in avalanche control may be found in target area or in avalanche control runout zones.

If an unexploded (dud) charge is found, do the following:

1. Do not disturb or touch!
2. Mark the location - no closer than 5 to 10 feet away.
3. Immediately report the location to:
   a. The nearest Ski Patrol/Employee; or
   b. ###-###-#### (checked at least once daily)

Figure H-2 Warheads (artillery)

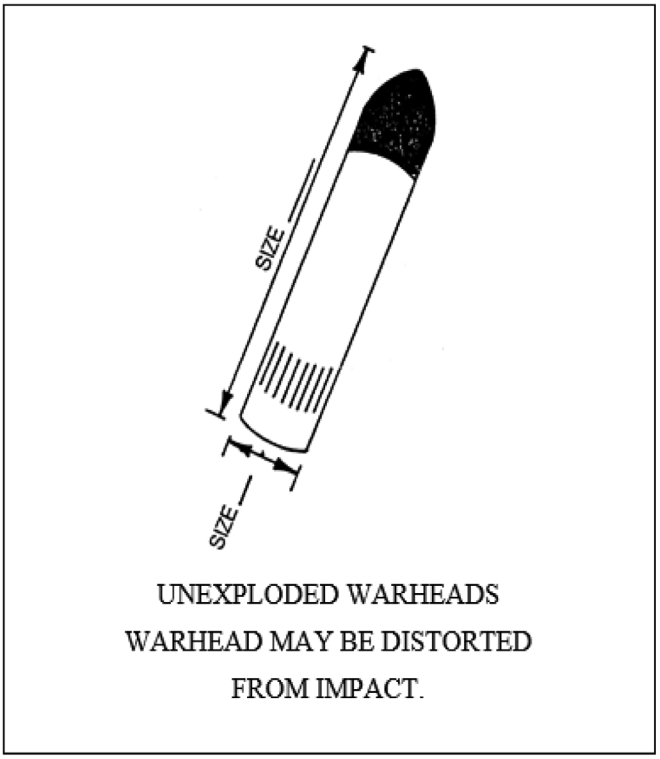

Figure H-3 Avalauncher

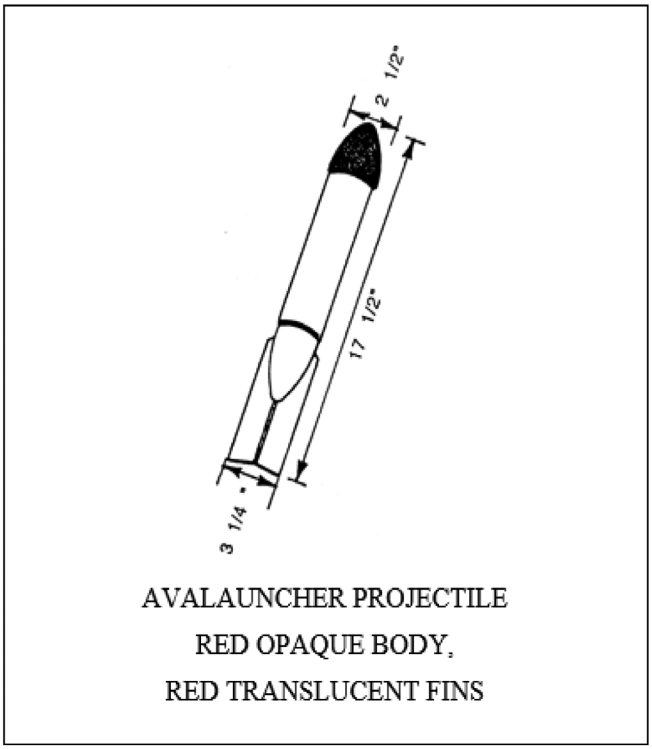

Figure H-4 Hand charge

(3) Dimensions should be updated to display the sizes of charges used. Pictures should be used if possible to assist in identification.

(4) Signs must be posted conspicuously in entry areas.

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PART I

LAW ENFORCEMENT

NEW SECTION

WAC 296-52-9000 General. (1) All law enforcement officers (LEOs) seeking licensing must present a letter from their agency, signed by at least a supervisor of their specialty stating that:

(a) They are assigned to the duties which they are requesting licensing for;

(b) Any projected end date to those duties if known.

Note: Agencies may provide one letter with a list of all current members.

(2) All persons must pass a test administered by the department prior to licensing, except bomb technician personnel as provided in WAC 296-52-23030.

(3) Law enforcement personnel serving in a government agency:

(a) Are exempt from background checks conducted by the department; and

(b) Conduct public safety operations, often in populated areas, which may cause intended damage designed to mitigate great damage, destruction and suffering; or

(c) Conduct training operations with the approval of property owners; and

(d) Must employ the safest methods possible developed by state and federal professional organizations.

Note: Procedures conducted by law enforcement are NOT inherently safe and sometimes must be adapted to a situation. These best practices and guidelines developed by organizations like the FBI Hazardous Devices School or Tactical Breacher's courses are designed to be the safest option possible. The damage caused is not a violation of WAC 296-52-3100.

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NEW SECTION

WAC 296-52-90010 License types and training. (1) Tactical entry (breacher): Those requesting a tactical entry (breacher) license must show a minimum of 40 hours of training in explosives safety, initiating system construction, charge construction, target analysis and overpressure/fragmentation mitigation, to include at least 24 hours of hands-on charge construction and firing.

(2) Bomb technicians: Must provide documentation as required in WAC 296-52-23030.

(3) Renewal: An application for a law enforcement license renewal must include documentation consisting of a training certificate and/or letter from at least their specialty supervisor stating that:

(a) The officer has conducted successful blasting and at least eight hours of training in the past year; and

(b) They are still employees of the agency and remain assigned to a tactical or bomb technician team.

(4) Canine handler (K9): Those officers which only handle explosives for K9 scent training do not have to license but must be specifically noted to the department as handlers and trained as noted in WAC 296-52-20090(3). Their department must maintain an updated list of their access as noted in WAC 296-52-20090(4).

(5) Noise and flash diversionary devices (NFDD's). Officers transporting and/or using only NFDD's in compliance with other parts of this section are not required to license or maintain certifications with the department. Their agency must record their training and keep it on file with other explosives use records.

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NEW SECTION

WAC 296-52-9100 Storage. Law enforcement agencies within Washington must follow normal procedures as listed in Parts D, E, and F of this chapter with regard to storage and transport of explosives with the adjustments in the following sections.

[]

NEW SECTION

WAC 296-52-91010 Fixed storage. (1) Storage of an agency's bulk explosives must be in magazines licensed by the department. This includes long-term storage of detonators and noise and flash diversionary devices (NFDDs) or explosive actuated tactical devices (EATDs).

(2) Operating buildings may not exceed 50 pounds total of explosives stored within the building including vehicles routinely parked there.

(3) Evidence and seized explosives:

(a) Should be stored in separate magazines identified to this purpose when possible; or

Notes: Fees will not be charged by the department for magazines specified and licensed solely for the storage of evidence and seized explosive materials.

Explosives retained as evidence or seized are often more sensitive and unstable than commercial explosives. Storage in a separate magazine of these materials is an industry best safety practice endorsed by the FBI Evidence Management Unit.

(b) When stored in a magazine with operational explosives:

(i) Will be segregated from other explosive materials by a nonsparking barrier such as wood; and

(ii) Must be evaluated by a licensed bomb technician or equivalently trained federal officer/agent for safety prior to being placed in that storage.

[]

NEW SECTION

WAC 296-52-91020 Vehicular storage. During normal and emergency operations, law enforcement agencies may store explosives in a department issued official response vehicle provided:

(1) Official response vehicles containing explosives are locked and secured when not in use and the conditions set forth below are met at all times. Vehicles containing:

(a) Explosives are only operated by commissioned officers; and

(b) Canine (K9) scent explosives are not stored in vehicles overnight; and

(c) Explosives are parked inside a secured facility when not in use.

(2) A facility is considered "secured" if it is a law enforcement or other government facility not accessible by unauthorized personnel and has:

(a) Law enforcement or other government personnel present at all times; or

(b) An additional security feature such as an alarm, camera, or card entry system.

(c) No more than 50 pounds of explosives may be stored in any building including all vehicles.

Note: Explosives weight stored is not to be confused with the TNT equivalency weight of explosive materials.

(3) Vehicles parked at an unattended outdoor location that is accessible by civilians or unauthorized personnel must have:

(a) At least two additional security features, such as a vehicle tracking system, vehicle alarm, vehicle immobilization mechanism, or other equivalent alternative. Multiple features integrated to one system will be counted independently; and

(b) Magazines, containing explosives, must be checked for tampering/unauthorized access at least every 24 hours.

Commented [CCJ(6]: Changes proposed during the meeting of 7-20-2022 cjc

(4) Vehicles may store explosive materials in accordance with the U.S. DOT gross vehicle weight rating (GVWR) of the unmodified vehicle as listed below:

(a) Class 2A and under (8500 lbs GVWR max):

(i) Ten detonators of any type and their associated initiators; and

(ii) Two and one-half pounds of other explosive materials; and

(iii) Four NFDDs/EATDs.

(b) Class 2B (8501-10000 lbs GVWR):

(i) Twenty detonators of any type and their associated initiators; and

(ii) Five pounds of other explosive materials; and

(iii) Eight NFDDs/EATDs.

(c) Class 3 and above (10001 lbs and above GVWR):

(i) Forty detonators of any type and their associated initiators; and

(ii) Ten pounds of other explosive materials; and

(iii) Twenty NFDDs/EATDs.

(5) Placards are not required for law enforcement vehicles:

(a) Operating as noted above under normal conditions; or

(b) Responding to an emergency with any amount of explosives.

(6) Storage in an attached garage is allowed and does not violate the residential restrictions in Part E.

[]

NEW SECTION

WAC 296-52-91025 Vehicular magazine requirements. All state and local law enforcement agencies intending to store explosive materials

in official response vehicles, whether attended or unattended, must meet the following criteria at all times:

(1) Explosive materials must be stored in at least a Type 3 magazine as defined in WAC 296-52-6400;

(2) Magazine openings must be secured by at least one:

(a) Steel padlock (which need not be protected by a steel hood) having at least five tumblers and a case-hardened shackle of at least 3/8-inch diameter; or

(b) Integrated lock of the following types with a bar that securely engages the frame of the magazine:

(i) Key lock with at least five tumblers; or

(ii) Combination lock with at least five numbers; or

(iii) Biometric lock;

(3) Magazines must be secured to the vehicle by:

(a) Being bolted or similarly affixed to the vehicle, or the locked compartments in which they are stored. Fasteners must be:

(i) Located on the inside of the magazine or compartment where they cannot be removed from the outside; and

(ii) Covered with a nonsparking material, such as epoxy paint or plywood.

(b) A secondary locking system containing a chain or cable and a padlock. The magazine must:

(i) Be stabilized securely within the trunk or cargo area of the vehicle when closed using the secondary systems chain/cable to prevent movement;

(ii) Use a padlock that meets WAC 296-52-60010 (4)(i) and (ii); and

(iii) All parts must minimize access by cutting devices;

(4) Detonators may be stored in the same magazine as delay devices, electric squibs, safety fuse, igniters, igniter cord, and shock tube, but not in the same magazine with other explosive materials;

(5) EATDs/NFDDs may be stored:

(a) In the same container as detonators if segregated by a nonsparking barrier of 12 gauge steel or 3/4" plywood; and

(b) Must be stored separately from other explosive materials;

(6) Loose or free-flowing explosive or propellant powders will not be stored in vehicular magazines or with other explosive materials;

Note: The transport of necessary amounts of black or smokeless powders for use at specifically planned operations or seized as a result of operations is not storage.

(7) Tools or other metal devices will not be stored in the same magazine as explosive materials.

[]

NEW SECTION

WAC 296-52-91030 Inventory. An inventory storage record must be maintained at an agency controlled permanent location separate from the storage (such as an office). The records must contain the following information;

(1) All types of storage:

(a) Name of the explosive material's manufacturer; and

(b) Date code or lot number of all items; and

(c) Quantity on hand; and

(d) Dates that the materials are received, removed, transferred to another magazine or used and in what amounts.

(2) Vehicles:

(a) Quarterly inventory of the explosive materials on hand;

(b) Comparison of the quarterly inventory to the vehicle inventory storage record must be made by the specialty supervisor or higher and noted on the record.

[]

NEW SECTION

WAC 296-52-9200 Transportation. Amounts less than 10 pounds are exempt from placarding provided:

(1) The operator is licensed by the department.

(2) The explosives are secured as described in WAC 296-52-91020.

[]

NEW SECTION

WAC 296-52-9300 Reporting. (1) In the event of the theft or loss of explosive materials, law enforcement officers must report the theft or loss within 24 hours of discovery to:

(a) ATF by calling 1-800-800-3855 and completing an ATF Form 5400.5, Report of Theft or Loss of Explosive Materials; and

(b) The department, or any person within the explosives safety program.

(2) Vehicular storage.

(a) The department must be notified of the following information regarding vehicles storing explosive materials upon license application, or within five days of changes to:

(i) Number of vehicles;

(ii) Number of magazines;

(iii) Number of magazines storing each type of explosive materials.

(b) Law enforcement agencies must maintain detailed records at an agency controlled permanent location separate from the storage (such as an office) with the following information:

(i) Type, make, model and production year of vehicle; and

(ii) The security method used on the vehicle; and

(iii) Types of explosives intended to store in the vehicle; and

(iv) Description of the magazine(s) to include dimensions in inches; and

(v) Method of securing each magazine; and

(vi) A photo of the magazine and security.

(c) Law enforcement agencies will review and certify their list to the department annually upon renewal.

(d) Records will be made available for department inspection at least annually or upon request at the law enforcement agency records location.

[]

NEW SECTION

WAC 296-52-9990 Appendices. These appendices are nonmandatory and are included for reference and information purposes only.

[]

NEW SECTION

WAC 296-52-9991 Appendix A—Sample explosives-blasting ordinance for local jurisdictions. Be it ordained by the _____ (jurisdiction name).

Section 1: Permit required.

(1) A current and valid blasting permit issued by _____ (jurisdiction name) is required by companies or individuals who:

(a) Use explosive materials (as defined by chapter 296-52 WAC, Safety standards for possessions and handling of explosives);

(b) Conduct any operation or activity requiring the use of explosive materials; or

(c) Performs, orders, or supervises the loading and firing of high explosive materials.

(2) Anyone in _____ (jurisdiction name) who does not have a valid blasting permit cannot transport, sell, give, deliver, or transfer explosive materials.

(3) A blasting permit is required for every individual project requiring blasting explosives.

(4) A permit issued to any person, company, or corporation under this ordinance is nontransferable to any other person, company, or corporation.

(5) All blasting permits issued by _____ (jurisdiction name) must follow all federal, state, county, and city laws and regulations that apply to these activities with explosive materials:

(a) Obtaining;

(b) Owning;

(c) Transporting;

(d) Storing;

(e) Handling;

(f) Using.

(6) The _____(name of the proper administrative authority) may limit the level of blasting. After examining all pertinent circumstances surrounding the proposed blasting, they may refuse to issue a permit, or suspend, or revoke an existing permit.

Section 2: Application contents.

(1) The _____ (jurisdiction name) requires persons, companies, or corporations who are issued permits to file an application that includes:

(a) A completed application form provided by _____ (jurisdiction name) specifying the:

(i) Name and address of the person, company or corporation applying for the permit; and

(ii) Name and address of the blast site; and

(iii) Person who will actually supervise the blasting.

(b) A current and valid explosives license issued by the state of Washington department of labor and industries to one or more individuals working on the specific blasting project.

(c) A transportation plan according to Section 8.

(d) A blasting plan according to Section 10(1).

(e) A traffic control plan according to Section 10(2).

(f) A preblast; notification, inspection, and monitoring plan according to Section 10(3).

(g) Proof of insurance must be provided according to Section 4.

(2) _____ (jurisdiction name) will issue a permit within 14 days of receiving an application that includes acceptable documentation of the above items in subsection (1)(a) through (g) of this section. If the permit is denied, it must be done within 14 days of administering authority receipt and must include a list of reasons for denial as well as instructions for reapplication.

Section 3: Fee.

A fee is required for each permit issued. It will be:

(1) Valid for no more than 12 months;

(2) Follow the local fee schedule;

(3) Renewable.

Section 4: Liability insurance required.

(1) If the _____ (jurisdiction name) design requires approval, then coverage of $1,000,000 or more is required or other reasonable amount depending on the circumstances as determined

by _____ (name of the proper administrative authority).

(2) The certificate must also state that the insurance company must give _____ (jurisdiction name) a minimum of 10 days' notice of cancellation of the liability insurance coverage.

Section 5: Revocation.

The _____ (name of the proper administrative authority) may revoke any permit if the permit holder does not follow the requirements of this chapter. The permit holder has 24 hours to remove all explosive materials after being notified that their permit has been revoked.

Section 6: Denial or revocation appeal.

Any person, company, or corporation whose blasting permit application is denied, suspended, or revoked by _____ (name of proper authority), may file a notice of appeal within 10 days to _____ (name of the legislative body with jurisdiction over the administrator).

The legislative body must schedule an appeals hearing within 14 days.

Section 7: _____ (jurisdiction name) not to assume liability.

_____ (jurisdiction name) is not responsible for any damage caused by the person, company, or corporation blasting within _____ (jurisdiction name).

Section 8: Transportation of explosives (transportation plan).

(1) The permittee must include a transportation plan that addresses the transportation of explosive materials within _____ (jurisdiction name) with the permittee's application for a blasting permit.

(2) The transportation plan must include 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.

(3) Vehicles must be in compliance with federal and state transportation regulations for transportation of explosive material.

Section 9: Storage of explosives.

(1) No overnight storage of explosive material is permitted within the limits of _____ (jurisdiction area) without specific amendments to the permit allowing storage.

(2) Blast holes loaded with explosives are to be shot on the day they are loaded.

(3) The required method of handling explosives in _____ (jurisdiction area) is as follows:

(a) Same day delivery;

(b) Stand by during loading;

(c) Return of all unused explosive materials.

Section 10: Use of explosives.

(1) **Blasting plan.** A blasting plan for each project must be submitted to _____ (jurisdiction name) and approved by the _____ (name of the proper administrative authority) or their designee prior to issuing a blasting permit. The plan must include additional documentation for the proposed blasting operation. For example, maps, site plans, and excavation drawings. The plan must include all of the following:

(a) Location where the blast will occur;

(b) Approximate total amount of material to be blasted;

(c) Incremental volumes, per blast, of material to be blasted;

(d) Types and packaging of explosive materials to be used;

(e) Drill hole diameters, depths, patterns, subdrilling depths and drill hole orientation to be used;

(f) Initiation system, the incremental delay times, and the location of the primers in the explosive column;

(g) Stemming depths and stemming material for the various estimated depths of drill holes to be blasted;

(h) Approximate powder factors anticipated;

(i) Flyrock control procedures and equipment to be used;

(j) Maximum number of blasts that will be made in one day;

(k) Blast warning sound system and equipment to be used;

(l) Scheduled start date and finish date of blasting operations;

(m) Addition of any other requirements as needed.

(2) **Traffic control plan.** A traffic control plan acceptable to _____ (jurisdiction name) must be filed before the blasting permit is issued, detailing:

(a) Signing;

(b) Flagging;

(c) Temporary road closures; and

(d) Detour routes for blasting operations.

(3) **Preblast notification plan.** A plan outlining the below actions within the distance from the blasting calculated in accordance with Section 10 (4)(a) below is required before the blasting permit is issued:

(a) Preblast public notifications;

(b) Structural inspections; and

(c) Blast effect monitoring.

(4) **Separation distance.** The distances from the blasting where the notification, preblast structural inspection, and blast monitoring is required must be determined by the scaled distance formulas described below. Blasting will not be permitted until the notification and inspection requirements are completed.

(a) Scaled distance formulas.

(i) The distance from the blast within which:

(A) Notification of all occupied structures is required: Da = 90 w;

(B) Inspection of all occupied structures is required: Db = 75 w;

(C) Monitoring of selected structures is required: Dc = 60 w.

(ii) In the above formulas:

(A) Da, Db, and Dc are the actual distances in feet from the closest point in the blast.

(B) "w" is the square root of the maximum weight of the explosives in pounds detonated with a minimum eight millisecond from another detonation event.

Note: The source of the chart is RI 8507, Bureau of Mines, U.S. Department of Interior, 1980.

(b) Notification letter. The preblast notification must consist of a letter advising all residents within the distance specified in Section 10 (4)(a) of the blasts. Distribution of this notification must be made a minimum of seven days before the start of blasting. The letter must include:

(i) The intent of the blasting program;

(ii) Its anticipated impact on local residents;

(iii) The proposed duration of blasting activities, and provide telephone numbers for public contact.

(c) Preblast inspection. A preblast inspection of resident's property must be offered to all residents within the distance specified in Section 10 (4)(a) above of the blasting at no cost to the resident and will be performed 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 _____(jurisdiction name).

(d) Where inspections are not allowed by the resident or are not possible for other reasons, a certified letter must be sent to the occupant/owner at the unsurveyed address advising them of their right to a preblast inspection and the possible consequences of denying an inspection.

(e) The preblast inspection program for residences within the specified distance must be complete two days prior to the start of blasting and the _____ (name of the proper administrative authority) should be notified.

(5) **Blast-plan compliance inspections.** Blast-plan compliance inspections may be required for every blast until the operator can demonstrate an ability to safely blast according to the blast plan and control the extraneous effects of blasting such as flyrock, noise/air blast, and ground vibration. If more than two blasting inspections are required, an additional fee of _____ (insert dollar amount) per blast inspection will be assessed.

(6) **Monitoring.** All blasts which require monitoring by Section 10 (4)(a) are to be monitored using:

(a) Blast monitoring equipment designed for the purpose, calibrated within the previous 12 months.

(b) Blast monitors which record peak particle velocity and frequency in three orthogonal directions and air over pressure.

(i) Monitored shots in which the pounds detonated per an eight-millisecond time increment is less than 10 pounds, one blast monitor is required.

(ii) When 10 or more pounds is detonated per an eight millisecond time interval, two or more blast monitors are required.

(iii) All blast-monitoring records are to be signed and submitted to _____ (jurisdiction name) within 24 hours of each blast.

(7) **Maximum peak particle velocity.** The maximum peak particle velocity in any seismic trace at the dominant frequency allowed on any residential, business or public structure designed for human occupancy is to be determined by the chart in WAC 296-52-3100(1).

(8) **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 per WAC 296-52-3100(2).

(9) **Utilities.** Whenever blasting is being conducted in close proximity to existing utilities, the utility owner must be notified a minimum of 24 hours in advance of blasting.

(10) **Blast report.** A signed blast report, on a form approved by the _____ (name of the proper administrative authority) or their designee, needs to be filed with _____ (jurisdiction name) within 24 hours of the blast. The report must include the following information:

(a) Date, time, and location of the blast;

(b) Number of drill holes;

(c) Maximum, minimum and average drill hole depth;

(d) Drill hole diameter;

(e) Subdrill depth;

(f) Total pounds of each type of explosive used;

(g) A drill hole section schematic showing the loading of a typical hole;

(h) Amount and type of stemming material;

(i) Schematic showing the drill hole pattern;

(j) Initiated delayed sequence;

(k) Maximum pounds of explosives detonated in any 8 millisecond time interval;

(l) Type and size of any flyrock protection devices used, if any;

(m) Comment regarding the outcomes of the blast.

(11) _____ (jurisdiction name) must be notified immediately of any unplanned or unusual events that resulted from the blast. The permittee must also report any incident, damage claim, or neighbor annoyance report brought to the permittee's attention within 24 hours.

Section 11:

This ordinance will be in effect to preserve the health, peace, and safety of the citizens of _____ (jurisdiction name).

[]

NEW SECTION

WAC 296-52-9992 Appendix B—Sample format for blast record nonmandatory.

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Washington Blast Report Format (Non-Mandatory)

Blast Data

Date: _____ Blast #: _____ Time of Blast: _____ ☐ AM ☐ PM

Blast-Site Location (address or coordinates): _____

Blaster in Charge: _____ Employer: _____

Blast Crew Members: _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

Weather Conditions (Clouds & Ceiling, Humidity, Wind Speed/Direction, Temperature, etc.):

_____

Rock and Drilling Data

Type of Rock Blasted: _____ Condition: _____

Boreholes: Number: _____ Diameter: _____ in. Depth: _____ ft. Water Depth: _____ ft. Backfill: _____ ft.

Burden: _____ ft. Spacing: _____ ft. Number of Rows: _____ Stemming: _____ ft. Stemming Material: _____

Non-Standard Pattern Details: _____

Explosives Used

Make/Type	Amount Used	Date Code/Lot No
	lbs	
	lbs	
	lbs	
	lbs	
	lbs	
	lbs	
Total amount in blast	**_____ lbs**	

Detonator Type(s) Used

☐ Non-Electric ☐ Electronic ☐ Electric ☐ Other

Manufacturer _____

Length(s) _____

Delay(s) _____

# of Units _____

Maximum loaded pounds per delay (8ms or less): _____ Maximum boreholes per delay (8ms or less): _____

Weight of explosives per deck: _____ Number of decks per borehole _____

Vibration and Damage Control

Closest occupied structure to the blast site (not owned by the blaster or person contracting the blast)

Distance: _____ ft. Direction: _____ Location (address/ coordinates): _____

Seismographs Used? ☐ **Yes (fill in below and attach all records)** ☐ **No (complete Scaled Distance)**

Seismograph Information (distance is from blast site, location is address/ coordinates)

Ser. No: _____ Distance: _____ ft. Direction: _____ Location: _____

Ser. No: _____ Distance: _____ ft. Direction: _____ Location: _____

Ser. No: _____ Distance: _____ ft. Direction: _____ Location: _____

Ser. No: _____ Distance: _____ ft. Direction: _____ Location: _____

Scaled Distance

$W = (D/F)^2 =$ _____ = **Maximum lb. per delay allowed**

W= max explosive weight D= Distance from closest structure (above) F= Scaled distance factor →

Factor (based on Distance)
50: 300 ft or less
55: 301 to 5000 ft
65: 5001 ft or more

Method used to measure distances

Laser RF, Optical RF, GPS, Tape, Wheel, Map, Other (explain)? _____

Note: This blast record format is not mandatory, but the information shown is required per WAC 296-52 for Blast records

Washington Blast Report Format (Non-Mandatory)

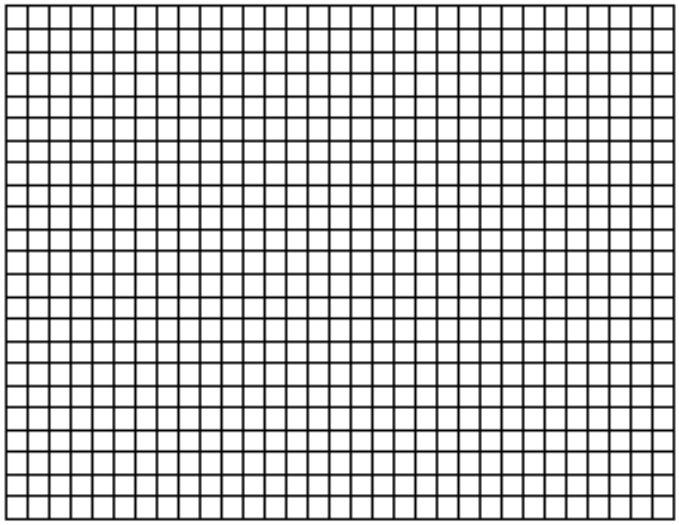
SKETCH OF BLAST

IDENTIFY SHOT LOCATION BY STATION OR BY DIRECTION AND DISTANCE TO KNOWN STRUCTURE OR OBJECT

SHOW: NORTH ARROW; DELAY NUMBER BY HOLE; WIRING/CORD/TUBING HOOKUP

BLAST LOCATION (address or coordinates) _____

BLAST NUMBER _____ DATE: / /



COMMENTS AND OBSERVATIONS

(including fragmentation, muckpile configuration, flyrock, misfires or any unusual conditions observed)

_____

_____

_____

_____

_____

HOLE PROFILES:

TYPICAL HOLE

NON-TYPICAL HOLES (IDENTIFY NUMBER OR LOCATION IN SKETCH)

SHOW: DEPTH; STEMMING; DECKS; WATER; PRIMER LOCATIONS; SUB-DRILLING; SEAMS; UNUSUAL CONDITIONS

Were blasting mats or other protection used?

☐ Yes ☐ No

BLASTER IN CHARGE NAME: _____

WA License Number: _____ Expiration Date: _____

SIGNATURE _____ Date: _____

Note: This blast record format is not mandatory, but the information shown is required per WAC 296-52 for Blast records

NEW SECTION

WAC 296-52-9993 Appendix C—Sample format for drill log nonmandatory. Sample Drill Log Format

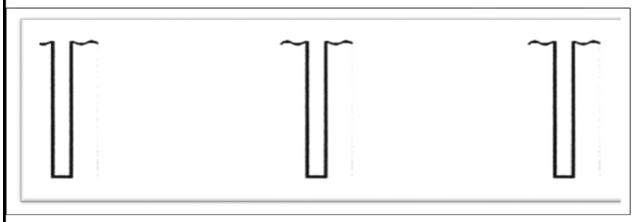
(Minimum record requirements per WAC 296-52-3205(1) Drill Log)

BLASTING DRILL LOG

DRILLING LOCATION: _____ DATE: _____/ _____/ _____

PROJECT: _____ DRILLER'S NAME _____

Hole #	____		Hole #	____		Hole #	____	
Depth	____	ft / m	Depth	____	ft / m	Depth	____	ft / m
Diameter	____	in / mm	Diameter	____	in / mm	Diameter	____	in / mm
Burden	____	ft / m	Burden	____	ft / m	Burden	____	ft / m
Rock Type	_____		Rock Type	_____		Rock Type	_____	
Overburden	____	ft / m	Overburden	____	ft / m	Overburden	____	ft / m
Void/Seam	____	ft / m	Void/Seam	____	ft / m	Void/Seam	____	ft / m



COMMENTS AND OBSERVATIONS (including any unusual conditions observed)

_____

_____

_____

PROVIDED TO BLASTER IN CHARGE NAME: _____ Date: _____

BLASTER'S SIGNATURE _____

DRILLER'S SIGNATURE _____

Note: This record format is not mandatory, but the information shown is required per WAC 296-52-3205(1) Drill Log

[]

NEW SECTION

WAC 296-52-9994 Appendix D—Medical certification for safe explosive handling and/or use. Appendix D: Licensed explosives users

in Washington state are individually responsible for monitoring their physical, mental or emotional condition as it affects handling and/or using explosives. Changes to the physical, mental or emotional condition of a licensee which could adversely affect their functional ability to safely handle and/or use explosives must be reported to the department.

Licenses will not be issued or renewed for the handling and/or use of explosives to any person whose physical, mental or emotional condition could adversely affect their functional ability to safely handle and/or use explosives until a licensed medical treatment provider has evaluated the physical, mental or emotional condition and found it to be:

(1) Adequately controlled through treatment; or

(2) No longer present.

Responsibilities:

Applicants or licensees who possess a Washington state explosives license:

In case of uncertainty, applicants/licensees must seek a licensed medical treatment provider's assessment of their functional ability to safely handle and/or use explosives.

Applicants/licensees:

(1) Are personally responsible to refrain from handling or use of explosives if they become aware of physical, mental or emotional conditions which could adversely affect their functional ability to safely handle and/or use explosives.

(2) In cases of uncertainty, licensees must seek a licensed medical treatment provider's assessment of their functional ability to safely handle and/or use explosives.

(3) Must provide the licensed medical treatment provider with the most accurate information possible about their current state of physical, mental or emotional condition and the requirements of their work.

Licensed medical treatment providers must:

(1) Perform an assessment based on the history provided, the job duties provided by the applicant/licensee and any observations of the person evaluated.

(2) Provide their findings in a clear manner such as a letter or other similar statement which they sign and date and provide back to the applicant/licensee for filing.

Notes: This appendix contains a sample format to assist licensed medical treatment providers in providing a concise assessment of the functional ability of a person to handle and/or use explosives safely.

The format is not mandatory. However, the department will not accept other medical information, histories, emails, only the signed assessment of the licensed medical treatment provider.

Should you have questions, please contact the department:

360-902-5563 or 360-902-5569

ExplosivesLicensing@lni.wa.gov

Sample format for medical statement of underlying medical conditions for the safe handling and/or use of explosives(minimum requirements per WAC 296-52-23010(1))

(Date)

Explosives Licensing

Attn: Applications

P.O. Box 44655

Olympia, WA 98504-4655

Subject: Statement of functional ability to safely handle and/or use explosives for _____ (*name of applicant/licensee*)

I, _____(*name of licensed medical treatment provider)*, have evaluated _____ (*name of applicant/licensee*) regarding the state of their underlying physical, mental or emotional conditions relevant to performing the following type of explosive handling and/or use/blasting:

□ Agriculture	□ Seismographic	□ Underground
□ Avalanche Control	□ Transmission Systems	□ Underwater

□ Explosive Disposal	□ Aerial	□ Unlimited
□ Forestry	□ Demolition	□ Other (Specify):
□ Industrial Ordnance	□ Surface	

The (applicant/licensee) *(is/is not)* in my professional medical opinion functionally capable of performing this type of work without creating harm to themselves or others due to existing physical, mental or emotional conditions within the scope of work provided to me by _____(name of applicant/licensee) on _____(date).

This examination and certification were performed on the date listed below:

_____

(Date)

I can be reached at the following phone number if needed:

_____ (Phone number)

Sincerely,

(Signature of licensed medical treatment provider)

Licensed Medical Treatment Provider's Name and title (printed):	
State licensed and license number:	
License Medical Treatment Provider's Address:	

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