

**WAC 296-52-803 Storage, makeup, and use of explosives for avalanche control blasting.** (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.]