

Explosives Safety Stakeholder Group Meeting Summary, December 4 2019

Labor and Industries, Bellingham

1720 Ellis Street-Suite 200, Bellingham, WA, 9:00am-2:00pm

Division of Occupational Safety and Health (DOSH) Staff Present:

Division of Occupational Safety and Health (DOSH) Safety and Health Specialist

DOSH Administrative Regulations Analyst

DOSH Standards Program Manager

DOSH Safety and Health Specialist

Organization represented (in no particular order):

Vail Resorts

Washington State Department of Transportation

Northwest Energetics

Wolverine West

Mount Baker

Mission Ridge

Mt. Baker Ski

Stevens Pass, Avalanche Control

Crystal Mountain

Snoqualmie Ski Area

Mission Ridge

Via WebEx:

One attendee, contact information unknown

Preparatory:

Approximately six weeks before today's meeting, all attendees provided electronic copies of the meeting materials with instruction to review and provide comments prior to the meeting.

Stakeholder comments and suggested changes were re-distributed to stakeholders November 21, 2019, to allow adequate time to review before the meeting.

Summary:

DOSH Safety and Health Specialist called the meeting to order at 8:53am.

DOSH Safety and Health specialist reminded attendees of the meeting format; attendees expected to review meeting materials prior to a meeting; and, the group will focus on specified sections of chapter 296-52 WAC Safety Standards for possession, handling, and use of explosives, Part H Avalanche Control.

DOSH Safety and Health specialist asked attendees if there were additional sections the group would like to discuss in addition to those previously identified by comments in the drafts. Three attendees stated they wished to discuss additional points during today's meeting. Issues identified were documented for review with the correlating part. The proposed change in the drafts were approved unless noted in the meeting summary. Only sections in which stakeholders

voiced concerns, comments and questions are documented below.

An attendee noted changes to Parts A and B may be necessary due to the proposed changes in Part H Avalanche Control.

- Aerial blasting is used in other applications in addition to avalanche control: breaking up log or ice dams.
- If changes made to the number of missions/training for aerial blasting license, will this impact reciprocity?
- Definitions for aerial blaster in charge and blaster's (user's) license may require updating
- List B qualifications

DOSH Safety and Health specialist briefly discussed with attendees the "vision" for reciprocity with other states. Reciprocity must be "asked for." The department will review license requirements for each state for which reciprocity is requested. DOSH Safety and Health specialist informed the group the Explosives Department webpage will reflect which type of license and states for which reciprocity has been granted.

An attendee questioned changing "shall" to "must." DOSH Safety and Health specialist explained the change is per the department; and, all standards being updated to reflect this change.

During the review of chapter 296-52 WAC Safety standards for possession, handling, and use of explosives Part H Avalanche Control, the group discussed the proposed changes to terminology. The group rejected the proposed changes to use the terms "bombardier" in place of "blaster-in-charge," "technician" in place of "observer;" and, "observer" in place of "controller." While discussing the proposed changes in terminology, the group consulted the Federal Aviation Administration (FAA) Regulations and Guidance. The rationale for the decision was to maintain consistency between Washington Administrative Code and other federal and state guidance and laws; and, improve safety through the use of common terms understood by those in the industry.

Chapter 296-52 WAC Safety Standards for Possession, handling and use of explosives, Part A Definitions, Purpose, Scope, and Application.

The group discussed the need to update the definitions based upon the review and changes made in Part H, Avalanche Control. DOSH Safety and Health specialist to develop wording after the meeting; and, distribute to stakeholders for review and approval.

Chapter 296-52 WAC Safety Standards for Possession, handling and use of explosives, Part B Licensing.

The group discussed the need to update the requirements in **WAC 296-52-23020(1)(b) List B Qualifications** to reduce the number of missions, include hours of training, including mandatory ground training. DOSH Safety and Health specialist to develop wording after the meeting; and, distribute to stakeholders for review and approval.

Chapter 296-52 WAC Safety Standards for Possession, handling and use of explosives,

proposed Part H Avalanche Control

WAC 296-52-82010 Blast site makeup

The group approved the proposed addition of “Method 1” in the WAC title.

The group approved the proposed the addition of the following note at the end of the WAC section:

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.

WAC 296-52-82020 Hand charge makeup room

The group approved the proposed addition of “Method 2” in the WAC title.

WAC 296-52-8400 Aerial avalanche control blasting

The group reviewed and discussed the change proposed. The proposed language to add:

“All handling procedures and techniques otherwise described elsewhere in Avalanche Control Blasting apply. No exceptions are made with regard to charge preparation, make-up, fuse length, or misfire procedures.”

The group rejected inserting the above language; noting the information was already stated in the standard.

Attendees agreed that DOSH Safety and Health specialist could update the language after the meeting. See Meeting Summary Addendum; and, updated draft of Part H.

WAC 296-52-84020 Limitations

WAC 296-52-84020(2)(d)

The group reviewed the changes proposed; additional changes made in the meeting. The group developed and approved the following **new** language:

“(d) A licensed avalanche control blaster who is in training to become aerial blasting certified.”

WAC 296-52-84020(3)

The group reviewed the changes proposed; additional changes made in the meeting. The group developed and approved the following **modified** language:

“(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.”

WAC 296-52-84020(4)

The group reviewed the changes proposed; additional changes made in the meeting. The group developed and approved the following **modified** language:

“(4) Blasting from an aircraft must require a designated blaster-in-charge. Such individual must be a license avalanche User (Blaster) with an endorsement for aerial blasting. The blaster-in-charge will be on board during each aerial blasting mission. The Blaster-in-Charge may assume any role appropriate to the mission but remains responsible for all blasting activities related to that mission, including blast zone security.”

WAC 296-52-84020(5)(a)(b)(c)

The group reviewed the changes proposed; additional changes made in the meeting. The group developed and approved the following **modified** language:

“(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 material are aboard the aircraft for the purpose of avalanche control.”*

Attendees agreed that DOSH Safety and Health specialist could update the language after the meeting. See Meeting Summary Addendum; and, updated draft of Part H.

WAC 296-52-84030 Aerial avalanche mitigation and control operations

WAC 296-52-84030(1)(d)(iii)

The group reviewed the changes proposed; additional changes made in the meeting. The group developed and approved the following **new** language after the existing language:

*“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.**”*

WAC 296-52-84030(1)(e)(i)

The group reviewed the changes proposed; additional changes made in the meeting. The group developed and approved the following **modified** language:

“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.”

WAC 296-52-84030(2)(a)(iii)(B)(1) through (5)

The group reviewed the changes proposed; additional changes made in the meeting. The group developed and approved the following **modified** language:

“B. Blaster in charge:

- 1) *Is primarily responsible for safely igniting and dispensing the explosive charges; and,*
- 2) *Communicates directly with the Pilot for all instructions involving igniting and dispensing the explosives; and,*
- 3) *Communications with the Pilot to receive permission to open and close the cabin door.*
- 4) *The blaster in charge may assume either/both blaster in charge or controller responsibilities; or, may delegate the role of controller.*
- 5) *If dispensing explosives, must be tethered with self-belayed with an approved mountaineering sling and seat harness; which may be adjustable.”*

WAC 296-52-84030(2)(a)(iii)(C)(1) through (4)

The group reviewed the changes proposed; additional changes made in the meeting. The group developed and approved the following **modified** language:

“C. Observer:

- 1) *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,*
- 2) *Has a primary responsibility to maintain positive control of the explosive charges, fuse igniters, and handing assembled charges to the Blaster-in-Charge; and,*
- 3) *Monitors fuse ignition, and dispensing of each explosive charge; and*
- 4) *Verbally accounts for any remaining unused charges to the Avalanche Control Team.*

WAC 296-52-84030(2)(a)(iii)(D)(1) through (3)

The group reviewed the changes proposed; additional changes made in the meeting. The group developed and approved the following **modified** language:

“D. Controller (optional):

- 1) *Communicates with the other team members if and as needed; and*
- 2) *Is responsible to document and record all avalanche mitigation and control operations; and*
- 3) *Communicates an estimate timing of charge deployment, and fuse burn times.”*

WAC 296-52-84030(2)(b)(vi) through (ix)

The group reviewed the changes proposed; additional changes made in the meeting.

Attendees agreed that DOSH Safety and Health specialist could update the language after the meeting. See Meeting Summary Addendum; and, updated draft of Part H.

WAC 296-52-84030(2)(e)

The group reviewed the changes proposed; additional changes made in the meeting. The group developed and approved the following **modified** language:

“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).”

WAC 296-52-84030(3)(c)

The group reviewed the changes proposed. The group approved the following **new** language:

“(c) The mission must be fully documented and inventories confirmed.”

WAC 296-52-84040 Emergency Procedures.

WAC 296-52-84040(2)(a)

The group reviewed the changes proposed; additional changes made during the meeting. The group developed and approved the following **modified** language:

“(2)(a) Every reasonable attempt will be made to record the location of all charges expelled (Jettisoned) from any aircraft.”

WAC 296-52-84060 Specific explosive safety precautions

WAC 296-52-84060(5)(c)

The group reviewed the proposed changes; the group approved **removing** the following language:

“On Command of “PULL” from the Controller, the Blaster-In-Charge should pull the cords to activate the fuse igniters.”

WAC 296-52-8500 Misfired/Lost explosives

WAC 296-52-8500(1)(e)(ii)

The group reviewed the changes proposed; additional changes made in the meeting. The group developed and approved the following **modified** language:

“(1)(ii) Disarmed at that location by personnel specifically trained and qualified in the use of the avalauncher.”

WAC 296-52-85010 Warning signs for typical avalanche control devices (duds).

WAC 296-52-85010(1)(a)

The group reviewed the changes proposed; additional changes made in the meeting. The group developed and approved the following **modified** language:

“(1)(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 WAC 296-52-85010.”

WAC 296-52-85010(1)(e)(v)

The group reviewed the changes proposed; additional changes made in the meeting. The group developed and approved the following **new** language:

“(1)(e)(v) Have a 24-hour contact telephone number that is checked at least once per day.”

Meeting adjourned at 12:00pm.

Materials available at the meeting:

Chapter 296-52 WAC Safety standards for possession, handling, and use of explosives, Part H
Avalanche Control
Agenda

Materials presented at the meeting:

DOSH Safety and Health specialist Power Point

.....
See Meeting Summary Addendum for additional proposed change made to the draft after the meeting.