

Control avalanches using handcharges

Level 5

Credits 4

Purpose People credited with this unit standard are able to operate in a safe manner as a team leader while storing and handling handcharges for use in avalanche control work, and operate as a team leader during the use of handcharges for avalanche control work.

Subfield Snowsport

Domain Avalanche

Status Registered

Status date 28 March 2001

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Planned review date 31 December 2008

Entry information Prerequisites: Unit 4562, *Assist with avalanche control work using handcharges*; Unit 17699, *Describe procedures, plan layouts, assemble, place and fire shots for snow control*; and Unit 18128, *Contribute data to the avalanche stability assessment for a snow safety programme*; or demonstrate equivalent skills and knowledge.

Accreditation Evaluation of documentation and visit by NZQA and industry.

Standard setting body (SSB) Sport, Fitness and Recreation Industry Training Organisation Limited

Accreditation and Moderation Action Plan (AMAP) reference 0050

This AMAP can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Special notes

- 1 All activities must comply with the policies and requirements of the enterprises involved and any relevant legislative and/or regulatory requirements which include but are not limited to the Hazardous Substances and New Organisms (HSNO) Act 1996, Health and Safety in Employment Act 1992, and their associated regulations.

- 2 The hazardous substances provisions of the HSNO Act 1996 was introduced progressively from July 2001. This included the repeal of the Dangerous Goods Act 1974, Explosives Act 1957, Explosives Regulations 1959, and aspects of the Transport Act 1962. The Environmental Risk Management Authority (ERMA) will be responsible for assessing and approving hazardous substances and where appropriate, setting controls on the way the substance is used. Any questions relating to the transitional provisions for hazardous substances should be directed to ERMA New Zealand, <http://ermanz.govt.nz>, telephone 04 916 2426 or Sfrito, <http://www.sfrito.org.nz>, telephone 04 385 9047.
- 3 It is a requirement of the snowsport industry that people working towards this unit standard work as an assistant on an avalanche control team (that is, under supervision) for a minimum of one season, and have logged experience of a minimum of 20 hand charges (under supervision) prior to being assessed against this unit standard.
- 4 People undertaking this unit standard require mountain travelling skills (foot, board or ski), and it is strongly recommended that they have demonstrated leadership skills in avalanche search and rescue.
- 5 Avalanche(s) which occur as a result of control work must be documented according to the *New Zealand Guidelines and Recording Standards for Weather, Snowpack and Avalanche Observations*, (Wellington: New Zealand Mountain Safety Council, 2003).
- 6 There are minimum assessor requirements for assessment against this unit standard. The details of these requirements are available on the Sfrito website <http://www.sfrito.org.nz>.

Elements and performance criteria

Element 1

Operate in a safe manner as a team leader while storing and handling handcharges for use in avalanche control work.

Performance criteria

- 1.1 Explosives and their components are stored, checked regularly for deterioration, and documented according to HSNO regulations.

Range	1.1B and 1.1D explosives, plain detonators, ANFO (Ammonium Nitrate – Fuel Oil mixture), safety fuses, pull-wire fuse igniters, cast primers, detonating cords, emulsion explosives.
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- 1.2 Explosives and their components are transported according to HSNO regulations and operational requirements.

Range	to the base supply depot, to and from the control site.
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- 1.3 Safe practices are demonstrated for reducing exposure to avalanche hazard and minimising the danger from explosives during control work.
- Range selection of travel route to control site, completing area closure for public safety, belaying and use of rope during placement of charges for cornices, positioning of personnel during blasting work, ear protection during blasting, visual and verbal communication with other workers, communication procedure used for dispatching charge(s).
- 1.4 Safety equipment is used to assist in a simulated avalanche rescue.
- Range transceivers, portable and non-sparking shovels, probes, radios.
- 1.5 Team members are supervised for safety and use of HSNO explosives procedures during the storage, assembly, and transportation of handcharges.

Element 2

Operate as a team leader during the use of handcharges for avalanche control work.

Performance criteria

- 2.1 Handcharges are assembled in approved locations and in accordance with HSNO regulations.
- 2.2 Placement locations are designated and charges dispatched according to industry standards and operational requirements.
- Range single charges, multiple charges fired simultaneously.
- 2.3 Control work and results are documented according to industry guidelines and to operational requirements.
- Range time, date, location, placement of charge, type and size of hand charge, detonation status, avalanche occurrence and/or non-occurrence, avalanche characteristics, resulting damage.
- 2.4 Misfires and suspected misfires are dealt with according to HSNO regulations and workplace operational and safety requirements.
- Range information recorded, waiting period observed, non-sparking shovels, placement of second charge or location marked for disposal later in season.
- 2.5 Team members are supervised during all parts of the assembly and dispatching of handcharges to ensure safety requirements are met.

Please note

Providers must be accredited by the Qualifications Authority, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by the Qualifications Authority before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact the Sport, Fitness and Recreation Industry Training Organisation Limited info@srito.org.nz if you wish to suggest changes to the content of this unit standard.