



Normal Operating Procedure (inc. Risk Assessment) Abseil

Risk Profile

The following risks have been identified through PGL's risk assessment process:

- a. Extreme weather.
- b. Injury from participation/physical exertion.
- c. Fatigue/exhaustion/dehydration.
- d. Injury due to incorrect set-up and operation/belaying.
- e. Injury from falling objects.
- f. Collision/entanglement with elements/structures/equipment/people.
- g. Entrapment of hair, fingers, loose clothing, etc. in element or operating structure
- h. Injury from cables & cable clamps.
- i. Tear/de-gloving injuries from rings and other jewellery.
- j. Danger of ground fall from:
 - i. Poor belaying or lowering.
 - ii. Lack of supervision of belayers.
 - iii. Intentional misuse of equipment and systems.
 - iv. Incorrect attachment.
 - v. Poor fitting of harnesses.
 - vi. Equipment failure.
- k. Rope burn injury.
- l. Slips/trips/low to ground falls.

Implementation of the following operating procedures reduces the residual risk to a level as low as reasonably practicable given the intended purpose of the activity.

Control Measures

Deployment Requirements

Instructor Qualifications: Centre based training by Approved Ropes Trainer and assessment by PGL Approved Assessor.

Instructor – Participant ratio: 1:15

Total group size: 15

Active participation: 1:1



Normal Operating Procedure (inc. Risk Assessment) Abseil

1. Equipment Requirements

Per Abseil Point:

- 1 x Dynamic 20-30m rope
- 1 x Static 20-30m rope
- 1 x Figure 8 descender
- 5 x Triplock karabiners (3D krabs)

2. Guest & Instructor Equipment Requirements

Per Instructor:

- 1 x Helmet
- 1 x Sit harness

If demonstrating:

- 1 x Chest harness
- 1 x Combi sling

Per Guest:

- 1 x Helmet
- 1 x Sit harness
- 1 x Chest harness
- 1 x Combi sling
- 1 x HMS karabiner

3. Specific Clothing Requirements

- Trousers or long shorts
- Flat soled shoes or boots unable to slip off
- Long hair tied back
- Jewellery removed where possible or made safe
- Where a chest harness is worn, a top or t-shirt must be worn that covers the individual's shoulders
- Loose items removed from pockets
- Any items constituting a risk of entanglement removed

4. Session Preparation

- a. Instructor to carry out a routine visual inspection of the element and activity area, checking the integrity of the whole element (to include poles, ladders, high lap splices, anchor points and guys, etc.), as per 'daily rope inspection checks.doc'.
- b. If built in a wooded area, check for fallen branches or unsafe trees.
- c. If the Instructor has any concerns about the integrity and safe use of the element and activity area, then they should raise this with the appropriate senior staff member, prior to any activity taking place.
- d. For outdoor elements, check the expected weather conditions, focusing on expected wind strength. Elements must not be used in wind conditions above Force 5, or those agreed with the technical advisor, or during any storm that breaches the 30/30 rule.



Normal Operating Procedure (inc. Risk Assessment) Abseil

- e. All set-ups must be rigged in accordance with PGL/MIC Technical Advisor approved methods/policy.
- f. If ladders are used, they must be secured in line with PGL ladder policy.
- g. Access to adjacent activity areas must be restricted during the session i.e. Jacob's Ladder rungs.
- h. Access to abseiling areas must be restricted and controlled using barriers and signage to prevent all persons not wearing a helmet from entering.
- i. Instructor to visually and physically check the integrity and setup of all PPE to be used, including twists in any straps and amount of PPE for the group.
- j. Instructors should prepare themselves for the session ahead by ensuring they are aware of relevant group information, and have a broad session plan which can be finalised when meeting the group.
- k. The instructor must attach safety and abseil ropes as per the ACOP, ensuring that the ground end of the static abseil rope is approx. 1 metre off the floor and that there is sufficient spare static rope after the tied off Italian hitch, to re-instate the ropes after problem solving.
- l. The spare static rope must be free of any entrapment hazards.
- m. No loose items allowed at the top of the tower.

5. Session Instruction

- a. All guests must receive a safety briefing and a demonstration and instruction in how to abseil – see the ACOP.
- b. All persons (instructor or guest) can abseil only when attached to the safety rope and belayed accordingly.
- c. Figure 8's must always be clipped to a karabiner attached to a rope or attached to a rope.
- d. Guests must remain in control of their descent at all times, with their hands on the abseil rope, unless locked off and lowered.
- e. All persons at the top of the element must be connected to a tied off safety rope/sling/strop before entering an exposed position.
- f. No one is to abseil forwards or in an inverted position, or jump.
- g. When belaying the instructor must ensure the safety rope is controlled following the approved method.
- h. Guests must experience abseiling by taking control of their own descent – they should not be lowered on a tight safety rope with little weight on the abseil rope.
- i. Guests should be asked to pull their own abseil rope from their descender to reduce risk of flicking themselves in the eye.
- j. If the Instructor chooses to pull the abseil rope from the guest's descender they should first ask them to cover their face and turn away before pulling the rope gently through.
- k. During successive descents instructors should allow guests to take more responsibility for attaching to the system and carrying out FDC. The instructor must always back these up with their FDC's. See Off Ground FDCs ACOP for details.
- l. Should a guest be dispatched, but reach a point on the edge where they need to return into the tower/structure, then the instructor should:
 - i. Keep one hand securely on the dead rope of the Italian hitch.
 - ii. Grab their other hand on the belay loop of the guest and pull them back into the tower/through the bars.



Normal Operating Procedure (inc. Risk Assessment) Abseil

6. Rescue

- a. Where guest goes unconscious, has other breathing or life-threatening conditions they should be lowered to the floor on the safety rope immediately. There is no need to do anything to the abseil rope as it will pull through the figure 8.
- b. If there are any other problems like entrapment the following should be carried out:
 - i. Participant's rope must be tied off.
 - ii. The releasable knot from the abseil rope must be untied.

There are now two options.

Where the instructor feels the problem can be solved and the guest can continue abseiling:

- a. Pay out on the abseil rope through the Italian hitch and ask the guest to solve the problem in the figure 8.
- b. Once satisfied the problem is solved the instructor can take back in the slack on the abseil rope, invert the Italian hitch and tie it off.
- c. The Instructor can then release the tied off safety rope and pay out rope until the abseil rope becomes loaded again with the weight of the guest.
- d. The guest can then continue abseiling with the safety rope belayed as normal.

Where the Instructor feels it is inappropriate for the guest to continue abseiling:

- a. Participant must be asked to hold the abseil rope above the figure of eight descender.
 - b. Participant must be asked to look away for where the instructor will throw the rope.
 - c. Abseil rope must be released using the 'below' command, opposite to the way the participant is looking.
 - d. The knot on the safety rope must be released and the participant lowered to the ground at a controlled pace.
-