

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. Intentional misuse of equipment and systems
 - iii. Incorrect attachment
 - iv. Poor fitting of harnesses
 - v. Equipment Failure
- k. Rope burn injury
- l. Slips/Trips/low to ground falls

Risk Profile

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

1. Equipment Requirements

Per Abseil Point

- 1 x Dynamic 10.5m rope (10mm-11mm, UIAA Single rope) long enough to lower participants to the ground
- 1 x Static 12m rope (9mm-11mm, Type A Semi-Static) long enough to allow participant to abseil all the way to the ground
- 1 x Figure 8 Descender
- 2 x Steel triplock karabiners
- 1 x Alloy triplock karabiner
- 2 x Alloy Forged eye triplock karabiners
- 5 x 60cm Sewn slings
- 1 x Instructor safety Cows tail

2. Participant & Instructor equipment requirements

Per Instructor:

- 1 x Helmet (Only for demonstration use)
- 1 x Eldered Radialis full body Harness
- or
- 1 x DMM Sit Harness & 1 x DMM Top Harness

Per Participant

- 1 x Helmet
- 1 x Eldered Radialis full body Harness
- or
- 1 x DMM Sit Harness & 1 x DMM Top Harness

3. Specific Clothing Requirements

Trousers or long shorts
Flat soled shoes or boots unable to slip off
Long hair tied back and controlled to prevent entrapment
Jewellery removed where possible or made safe.
A top or t-shirt must be worn that covers the individual's shoulders
Loose items removed from person
Any items constituting a risk of entanglement removed

4. Session Preparation

- a. Instructor to carry out a routine visually inspection of the element and activity area, checking the integrity of the whole element (to include stairs, abseil wall, steel bar, platform etc, as per 'Daily rope inspection Checks ACOP'.
- b. 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.
- c. Check the expected weather conditions, focusing on expected wind strength. Elements must not be used in wind conditions above Force 5 (29km/h-38km/h), or during any storm that breaches the 30/30 rule.

- d. The set-ups must be rigged in accordance with PGL Technical Advisor approved methods/policy – see ACOP
- e. Access to adjacent activity areas must be restricted during the session.
- f. Access to abseiling areas must be restricted and controlled and group management to prevent all persons not wearing a helmet from entering.
- g. Instructor to visually & physically check the integrity and setup of all PPE to be used, including twists in any straps and amount of PPE for the group.
- h. 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.
- i. The Instructor must be attached to a safety rope before approaching an exposed area at the top of the element – see ACOP
- j. The instructor must attach their personal safety and participant 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 rope after problem solving.
- k. The spare static rope must be free of any entrapment hazards.
- l. No loose items or containers permitted on top of the tower.

5. Session Instruction

- a) All participants must receive a safety brief and a demonstration and instruction in how to abseil – see ACOP.
- b) All persons (instructor or participant) can abseil only when attached to the safety rope by the instructor and belayed as per the ACOP and Final departure checks have been completed.
- c) Fig 8' Descender must always be clipped to a karabiner attached to a rope or installed onto a rope.
- d) The participants safety rope must be clawed and the tie off released before the participant leans back and starts to abseil
- e) They must be belayed into the starting abseil position with a tight rope and then the instructor will transfer the weight to the participant so they are abseiling holding their own weight, with the safety rope following just behind as back up.
- f) Participants must remain in control of their descent at all times, with their hands on the abseil rope under the Fig 8 descender, unless locked off and lowered, or participating in an approved challenge.
- g) All people at the top of the tower must be connected to a platform safety or tied off safety rope before entering an exposed position.
- h) No one is to abseil forwards, in an inverted position, or jump.
- i) When belaying the instructor must ensure the safety rope is controlled following the approved method – see ACOP
- j) Participants 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. (Unless required for safety / rescue purposes)
- k) If a participant completes their first abseil in a controlled and stable manner they must be offered some challenge on their subsequent descents so as to further their understanding and enjoyment of the session. However, if participant is not capable of abseiling safely, their second abseil should remain focused on skill improvement
- l) Once on the ground, participants should be asked to pull their own abseil rope from their descender to reduce risk of flicking themselves in the eye.
- m) If the Instructor chooses to pull the abseil rope from the participants descender they should first ask them to cover their face and turn away before pulling the rope gently through.

- n) During successive descents Instructors should allow participants to take more responsibility for attaching to the abseil rope and carrying out FDCs. The instructor must always back these up with their FDC's. See Off Ground FDCs ACOP for details.
- o) Should a participant be dispatched, but reach a point on the edge where they need to return into the tower, then the instructor should :
 - Keep both hands securely on the control rope side of the participant safety rope
 - Use their bottom hand to reach and pull on the D-ring attachment point of the participant to pull them back into the tower
 - Take in all slack from the Participant safety rope, "claw" the Italian Hitch, tie it off using the approved method.

6. Rescue

- a) Where participant 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 fig 8 descender.
- b) If there are any other problems like entrapment the following should be carried out :
- c) Participant safety rope must be tied off
- d) 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 participant can continue abseiling:

- e) Pay out on the abseil rope through the Italian hitch and ask the participant to solve the problem in the fig 8 descender
- f) 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.
- g) 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 participant
- h) The participant can then continue abseiling with the safety rope belayed as normal

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

- i) Participant must be asked to hold the abseil rope above the figure of eight Descender.
- j) Participant must be asked to look away for where the Instructor will throw the rope
- k) Abseil rope must be released using the 'below' command, opposite to the way the participant is looking.
- l) The tie off (in the Italian Hitch) on the participant safety rope must be released and the participant lowered to the ground at a controlled pace.