

Occupational Health & Safety Bulletin

ESAA 08/2003

17 January 2003

Bulletin No. 2003/?

Incident

- Employee's pole strap became unclipped causing employee to fall to the ground

Occurred:

- 15 November 2002.

:

For more information contact:

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Section involved:

Asset Management - Southern Region Coniston

Task being completed:

The employee was restoring supply to a pole substation and was preparing to test supply at the LV fuses.

Details:

The investigations have attributed the accident to a pole strap unintentionally becoming unclipped from the harness causing the employee to fall from the pole.

The pole strap had a double action snap hook that was in serviceable condition.

The exact circumstances relating to this incident are unknown. However, for the separation of the snap hook from the harness to happen, the following must occur simultaneously:

- the locking catch has to be accidentally disengaged.
- the safety catch has to be accidentally disengaged.
- the pole strap would need to be slack to allow separation from the harness to occur from an open snap hook.

While it is extremely difficult to recreate these three simultaneous operations, staff should be alert to the following circumstances which may assist their occurrence:

- tools and tool pouches worn adjacent to the snap hook.
- pole steps.
- pole hardware.
- slack pole strap.

Incident outcome:

Findings of the investigations when complete, will be communicated to all staff via a further Safety Bulletin.

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Staff should also be aware and check that they are using their harness correctly. Circumstances, although very remote, can occur which will jeopardise the proper operation of the harness. Photographs are attached to this bulletin which illustrate unsafe operation of the harness.

Incident outcome:

- the employee sustained significant injuries to his right leg.
- a comprehensive investigation into the cause of the accident has been undertaken.

What was done to prevent the incident happening again?

- a preliminary OH & S Bulletin was issued on the 20 November 2002.
- a memo and photographs of preliminary observations from the investigation was sent to Management and Southern Region staff on the 20 November 2002.
- a "personal protective equipment committee" has been formed to investigate all PPE issues including the design and use of safety harnesses.

What you should do:

Staff who climb must maintain continual vigilance in relation to the proper inspection and use of their safety harness and pole straps. Staff should:

- always carry out pre-use inspections of the harness and attachments for wear and serviceability. Never use worn or unserviceable equipment.
- never wear tools, tool pouches or any attachments adjacent to the snap hooks.

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- always ensure that the harness is correctly fitted and adjusted.
- do not allow the locking catch to be nearest your body. The catch could be pushed against your waist or leg and accidentally opened.
- always ensure that the "D's" are properly engaged in snap hooks. Do not rely on the feel or sound of a snap hook closure.
- always fully check that both the safety and locking catches are fully engaged before applying load.
- always test the integrity of attachments prior to relying on the assembly to support your weight.
- where possible, maintain tension on the pole strap during use and movement around work positions.
- reinspect attachments after periods of slack pole straps.
- regularly confirm attachment during work where the body is in contact with anything capable of accidentally opening the locking or safety catch.
- defect and tag defective equipment.

Photograph 1



The above pole strap was selected at random to provide a comparison with the strap involved in the accident. It was discovered during the investigation that the locking catch could remain in the open position. While this is most unlikely with movement and vibration, staff should be aware that this can happen and ensure that the locking catch is always closed.

Photograph 2



This photograph illustrates that a twisted belt can force the locking mechanism down allowing the locking catch to be opened. Opening of the locking catch can also be caused by tools worn on the belt, pole steps on the pole or any other attachments to the pole. Again, while this is most unlikely to occur, it should be recognised that the pole strap can be distorted while moving around the pole and trapped by equipment attached to the pole. It should also be noted that even with tension on the strap, the location of the strap on the snap hook will be retained, with the locking catch rendered inoperative.

Photograph 3



Employees should ensure that when the “D” or ring is placed in the clip, that it should be fully in the hook with the safety catch closed. The above photograph shows that it is possible for the ring to catch on the safety catch locating bar and be held in that position by the safety catch. Considerable tension can then be placed on the strap and it will remain in this position without clicking into its proper location. When the tension is released from the strap, the ring will come free and release the strap.

Photograph 4



This photograph shows the problem defined in photograph 3 from a different angle.

Photograph 5



This photograph shows the problems of not having the correct orientation of the locking catch to the body and also the inadvertent operation of the catch by tools worn on the belt. The locking catch should be on the outside of the pole strap and this will prevent tools from opening the locking catch. However, other objects such as pole steps can also cause operation of the locking catch if they are pressed against it.

While it is difficult to cause a double operation of the catches, it is possible that both catches could be compressed between two separate objects releasing the ring.

Photograph 6



Photograph illustrating operation of locking catch by rotating pole strap.

Photograph 7



This photograph shows the level of interference that can occur to the catches from both tool pouches and pole hardware. Staff should be alert to possible interference of the strap catches from these sources and the possible release of the strap under these circumstances.