

Safety Alert

Mines Inspectorate

Safety Alert No. 271
15 July 2011

Longwall fluid-injection injury

Mine type: All mine types

Incident: A coal mine worker was energising a hydraulic power take off (PTO) on a longwall shield, unaware that a hose connected to the PTO was not connected to any equipment and had been left uncapped from a previous job. The unrestrained end of the hose then whipped uncontrollably, striking the worker, who sustained bruising to both thighs, a fractured and lacerated right index finger and emulsion fluid injection to the laceration.

Equipment: Longwall PTO hose

Hazard: Uncontrolled release of hydraulic energy and fluid

Cause: The coal mine worker was energising the hydraulic circuit after repairs had been made to a damaged fitting. When the PTO was energised, the unrestrained hose and high pressure fluid struck him on the legs and on the back of the hand. The worker had been informed that the PTO was the hydraulic supply point for the tailgate shield anti-topple ram, however the supply point had been moved to the PTO on an adjacent shield and the hose not removed.

Comments:

- The hose run was not visible because of the large amount of built-up material caused by poor housekeeping (see photo at right).
- Redundant hoses had not been removed from the work area, creating confusion as to the correct supply point.
- There was poor communication on the progress of the job and isolation changes during the course of the task.
- The hazard of having unrestrained and uncapped hoses was not recognised — energised longwall hoses can be pressurised at up to 300 bar.



Recommendations:

1. That all supply points and hoses be clearly marked and labelled.
2. That housekeeping standards be maintained so that hose paths are readily visible and traceable.
3. That unused hoses be restrained and capped or removed from service along with redundant hoses.
4. That changes to the job process and the isolation requirements for the task be clearly communicated to all personnel involved in the task.
5. That all personnel recognise the hazard present in hoses and circuits pressurised at up to 300 bar.

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Please ensure all relevant people in your organisation receive a copy of this safety alert. Any such advice supplied to site should reach those who require it, and it should also be placed on the mine noticeboards.

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