TESTING PROCEDURES FOR MINE WINDING SYSTEMS

This Safety Alert has been prepared to provide underground mines operating powered winding systems with the earliest possible advice of an instance where the skip on a drum winder was wound into the detaching hook while testing the overspeed limit.

BACKGROUND

While carrying out the brake and overspeed tests on a two skip drum winder it was determined that the brakes were not as efficient as on previous tests.

The testing was delayed while the inefficient brake caliper linin was replaced, bedded in and satisfactory static testing carried out on the brake system.

A false landing was set up, some testing was carried out then a full speed test was carried out with the fully loaded skip being driven down at full speed into the false landing.

The skips failed to stop at the false landing, resulting in the top (empty) skip entering the tower and the detaching hook operating. The other skip (full) hit the underground structure and deformed.

RESULTS OF INITIAL INVESTIGATION

During the false landing test the following protection was **not** in service:

- Overspeed
- Auto Decelaration
- First level overtravel
- The refined caliper brake system had not had a deceleration test carried out

Investigation of the adequacy of the brake system is continuing

PRELIMINARY RECOMMENDATIONS

- Mines should review their powered winding system to MDG 30 Notice D10 "Specifications of Requirement of Approval Powered Winding System" - Risk assessments to comply to MDG 1010. (Notice also in MDG 33 Appendix B - Notice A 76 and D10).
- The review should include an assessment of protective measures related to risks created during winder testing and commissioning.

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