



# SAFETY ALERT

## Drill rig incident

### INCIDENT

A driller's assistant received serious finger injuries while working from a ladder alongside the mast of an exploration drill rig. He received two broken fingers. However, his injuries could have been far worse, including amputation of fingers.

### CIRCUMSTANCES

The assistant was using the drill frame to support himself with his left hand as he was descending the ladder alongside the drill mast. The driller used the controls to close the hydraulic racking mechanism at the same time as his assistant was descending. This caught the assistant's fingers in a nip point between the head racking mechanism frame and the drill mast frame. Fortunately, the driller heard the assistant calling out and reversed the action quickly and released the assistant's fingers. The assistant's fingers could have easily been amputated if the driller had not acted quickly to reverse a control lever.

### INVESTIGATION

The investigation revealed that the task was performed infrequently. No job safety analysis had taken place. The driller operated a control without warning his assistant who was descending the ladder. There was no effective means to isolate the controls and the driller had acted with human error and automatic response to carry out this task. He closed the hydraulic racking mechanism at the same time as the assistant placed his hand in a vulnerable position in the drill mast frame.

A secondary issue was that the ladder alongside the mast was narrow, thereby creating a situation where the assistant had to hold onto the mast while ascending and descending the ladder way. The driller's assistant was wearing a fall arrest harness at the time of the accident.

The emergency response was delayed as the exact location of the drill rig was unknown.

### RECOMMENDATIONS

- Mechanically isolate drill rig controls to enable selective isolation of control levers. (See attached photo for example)

- Conduct a risk assessment to establish effective safe work procedures when using isolation controls as well as clear warnings before equipment is started.
- Design ladders alongside masts to be of adequate width to enable three point contact for the person using the ladder.
- Ensure that emergency response plans include documentation of the location of exploration drill rigs and that the directions along the route leading to the drill rig are physically marked so emergency crews can locate the drill rig site if an emergency occurs.
- Emergency rescue crews should have mast rescue procedures in place.



The above photo shows the recommended isolation of a drill rig control panel. It was not in use at the time of the incident outlined in this Safety Alert. However this isolation device allows for selective isolation of individual levers as required.

**NOTE:** Please ensure all relevant people in your organisation receive a copy of this Safety Alert, and are informed of its content and recommendations. This Safety Alert should be processed in a systematic manner through the mine's information and communication process. It should also be placed on the mine's notice board.

**Signed**

A handwritten signature in black ink that reads 'Paul Healey'.

**Paul Healey**  
**MANAGER NORTH EAST REGION**  
**MINE SAFETY OPERATIONS BRANCH**  
**NSW DEPARTMENT OF PRIMARY INDUSTRIES**

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