

INCIDENT ALERT

LOCATION: Quarry
ACTIVITY: Transport / Delivery
SUB ACTIVITY: Mobile Plant

ALERT STATUS: Normal
DATE ISSUED: 21/12/10
INCIDENT No: 00279

TITLE

Fatality Involving Hydraulic Excavator (summary of an external incident)

ACCIDENT / INCIDENT DETAILS

This incident occurred at a quarry in France during a delivery of explosives at the beginning of November this year. Due to the steep gradient of the road into the working area of the quarry the lorry was unable to deliver its load directly to the blast area. An excavator was tracked to a level area at the top of the quarry and the material was transferred to the bucket as seen in the photos below.

All the bags of explosive had been loaded into the bucket and the driver was instructed to take it down into the quarry when it was realised by the delivery driver that the detonators were still in the trailer behind the lorry. The bucket of the excavator was still on the ground at this point although the excavator was ready to move off. The explosives delivery driver passed the detonators to a quarry operative who was advised to place them in the cab of the excavator with the driver. He approached the excavator cab and the driver opened the door and took the box.

When reaching down to place the detonators on the cabin floor, the driver caught the joystick control causing the arm of the excavator to slew towards the delivery truck hitting the delivery driver and trapping him against the truck crushing him. The delivery driver died of his injuries.

ACCIDENT / INCIDENT IMAGES



LEARNING POINTS / ACTIONS TAKEN

The Immediate Cause of the incident was due to the controls of the excavator being ,live™ whilst the driver reached to the floor of the cab to place the detonators on the floor. Had the machine operator turned the machine off, or even lifted the dead-man™s-handle no controls would have been active Œ he should have done this before anyone approached the cab, and should not have started the machine whilst people were within his working range.

The Root Causes are a little more difficult to determine due to the limited information made available from the investigation, but they include:

- Design of the access ramp into the quarry Œ this was too steep Œ it was only suitable for tracked vehicles causing th excavator to be used to transport materials which ideally would be conveyed by the delivery lorry.
- Lack of discipline by the operator of the excavator; the controls should be made safe, ideally with the machine turned off and the keys removed, when people were within the working range of the bucket or approaching the machine. In this case the machine was approached; the operator opened the cab door, took a box from a colleague outside the cab then reached down to the cab floor; all done whilst the controls were still active. The machine could have trapped the colleague between the cab and the tracks as easily as it trapped the delivery driver against his truck.
- Not having a suitable procedure to ensure the excavator was made safe whilst people were within the operating radius of the bucket meant neither people nor the delivery lorry were required to move away before the excavator was started/made live.

LEARNING POINTS / ACTIONS IMAGES

