BEST PRACTICE

LOCATION:		**ARTICLE YEAR:**	2010
ACTIVITY:	Access & Egress & Working at Height	**COMPANY:**	Hillhouse Quarry Group
SUB ACTIVITY:	N/A	**COMPANY LOCATION:**	Hillhouse Quarry
BEST PRACTICE No:	BP690	**COMPANY TEL:**	01292 313311

TITLE On Video

Removable crusher house roof system

ARTICLE

DESCRIPTION

During the design and build of a new crushing plant at Hillhouse Quarry, the question of how to achieve safe access to the secondary crusher was raised. This can be an issue with crushers located within buildings when it may be necessary to remove both roofs and sheeting to enable access to and the lifting of large crusher parts.

This entry highlights the need for the design of a safe and easily removable crusher house roof system. The roof solves the perennial problem of gaining access to the cone crusher to carry out maintenance tasks and manganese liner changes.

The new design ensures no operatives or contractors need to work from ladders when unfastening bolts internally, or when unbolting beams and/or sheeting that form part of the roof structure.

A small team from the quarry worked on the design with the main contractor to eliminate the many hazards of this task and the new roof is currently being commissioned.

The design incorporates pedestrian access on to the crusher house roof from a surge bunker walkway which feeds the crusher. A small vertical access ladder with protection rings descends from the surge bunker walkway on to the crusher house roof. The roof has an all-round walkway with handrails on both sides of the platform giving safe access to the removable section of the roof.

The removable section has permanent lifting points at the four corners which allow the safe fixing of lifting chains, which can now be carried out from the walkway platform.

When the removable section of the roof is lifted to the ground, it leaves a square gantry with handrails all round. This enables a signaller to position themselves on the roof in full view of the crane operator and give clear instructions. Previously, communication between the signaller and crane operator was via a two way radio.

This design removes all the previous risks associated with the removal of crusher house roofs and eliminates the use of cherry pickers/man baskets making the task much safer and more efficient.

BENEFITS

1. The risks from working at height have been minimised and the crusher can be maintained more efficiently

2. It is no longer necessary to work from ladders inside the crusher building

ARTICLE IMAGES