BEST PRACTICE

LOCATION:		**ARTICLE YEAR:**	2010
ACTIVITY:	Occupational Health	**COMPANY:**	CEMEX UK
SUB ACTIVITY:	Air and dust	**COMPANY LOCATION:**	Cowieslin Quarry
BEST PRACTICE No:	BP744	**COMPANY TEL:**	01721 730251

TITLE

Retro-fitting Respirable Crystalline Silica (RCS) engineering

ARTICLE

Description

In 2006, the Health and Safety Commission (HSC) set a new workplace exposure limit (WEL) for Respirable Crystalline Silica (RCS) of 0.1mg/m3. The COSHH assessment at Cowieslinn Coating Plant identified that the overall respirable dust fraction has a higher than
average respirable crystalline silica content.

The assessment also highlighted:

Control cabin operators were at particular risk

The current control measures by which exposure can be prevented were not suitable

Additional engineering controls were necessary

Use of personal protective equipment and respiratory protective equipment were adequate but were seen as the last form of defence.

It was necessary to reduce the exposure to dust of those who recorded at the top end of the exposure limits during personal monitoring, and who had previously been identified as being at particular risk, whilst carrying out daily operations from within the control room.

Following further monitoring and analysis by ventilation engineers, a small air handling unit was fitted on top of the cabin. The unit supplies clean pre-filtered air (with a heating element) into the cabin, which keeps the working environment under a positive pressure and helps prevent dust being drawn in through leaky seals.

The predicted reduction in the quantity of total inhalable dust, respirable dust and respirable crystalline silica measured over an eight hour time weighted average period is 50% or below that of the recognised workplace exposure limit.

Continued and regular air static sampling and personal monitoring will, in conjunction with manometer pressure drop monitoring, ensure we maintain the design efficiency and recognise when filters require renewal.

Benefits

Substantial reductions in dust exposure levels which will:

ARTICLE IMAGES