



Queensland Mining Industry Occupational Safety and Health Innovation Awards 2003

Southern Colliery

Longwall AFC Respirable / Combustible Dust Suppression Sprays

AFC dust suppression sprays have been installed at Southern Colliery in order to reduce respirable dust on the Longwall Face.

Previously the coal on the AFC was untreated with dust suppression sprays and could travel distances of up to 240 m. The direction and speed of the AFC coupled with the ventilation velocity in the opposite direction gave rise to airborne particles of respirable dust.

Wade McDonald of Anglo Coal, Southern Colliery developed the AFC sprays to wet the surface of the coal bed flowing along the AFC to prevent the generation of respirable dust. Careful design and installation has ensured that the sprays are integrated into the face operation. The sprays are an adjustable fire nozzle mounted on a swivel bracket installed on the AFC approximately every 40 chocks.

The sprays have been able to visibly reduce the quantity of dust generated from the AFC. This is to the benefit to all miners on the Southern Colliery Longwall.



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