

GAG Docking Station

Glencore Xstrata-Oaky Creek Coal No. 1 Mine

The Problem or Initiative

Through past experiences and emergency exercises, difficulties in docking the GAG to different docking sites across multiple coal mines was identified by the QMRS. An industry forum was held to convey this message and identify requirements for standardisation.

The Solution

A standardised design was agreed upon that allowed for fast docking with ancillary services nearby (Fuels, Water) while maintaining GAG crew safety.

The GAG Docking Station was developed to suit the exact specifications of the GAG used in Queensland. The Queensland Mines Rescue Service was consulted throughout the construction, implementation and trial of the GAG Docking Station to ensure the required outcome was achieved.

The GAG Docking Station is an Engineering Control as it is has been designed specifically to enhance the response time of the GAG while maintaining a safe work environment reducing the GAG crews exposure to an overpressure event within the mine.

Two temporary (12 months) GAG Docking Stations are installed at Oaky No. 1 Mine along with 1 permanent installation that have been trialled on site as part of level 2 exercises with positive feedback from the GAG crews.

Benefits/Effects

The benefit of the GAG Docking Station is the reduction in setup time therefore improving response time to introduce inert gas into the mine. It provides a consistent approach for all members of the Queensland Mines Rescue Service to be familiar and trained effectively on the installation of the GAG.

The blast canopy is a three walled structure that directs any overpressure event away from the GAG crew. A blow off valve on the top of the adapter prevents overpressure of the GAG and reduces the likelihood of damage.

Transferability

The modular design of the temporary docks allows for easy and efficient relocation to new borehole sites. The standard design would be easily implemented at other sites.



Figure 1 – Docking point from back



Figure 2 – Docking station from front



Figure 3 – QMRS GAG being docked at site