

Helping Keep Track of Explosives

In recent years governments everywhere have taken security issues as a major priority. This has had repercussions through industry to be aware of the location of products and reactants that could be used or could form dangerous materials. Clarinox assisted major mining explosives, Orica, with a trial system for investigation of occupational health and safety implications of tracking their product.

Electronic tracking of explosives

Tracking explosives using electronic means poses technical challenges as the electromagnetic field around the product must be kept below particular limits. This must be balanced against the functionality of the system desired by those using.

Wireless data transfer

The trial system was based around 13.56MHz RFID technology for the identification of individual product. Bluetooth was then used to transfer the information gathered back to a centralised server station. A locking mechanism was used to ensure the higher power radio frequency technology could not be used simultaneously with the 13.56MHz technology.

Clarinox role

Clarinox successfully developed and provided a system that could read the individual product identity and relay this information back to the server. This facilitated the fast and automatic identification of product along with details of the last point of handling and identity of handler to quickly allow investigation should product go missing.

Future plans

The project provided a trial system to demonstrate and perform thorough occupational health and safety testing. The system placed Orica in a position to be ready to implement quickly when required.