



MOTOTRBO™ INTEGRATED PLATFORM ENABLES BROADCAST OF SOUND ANNOUNCEMENTS AND MANAGEMENT OF COMMUNICATIONS IN EMERGENCIES

FOR EFFECTIVE EMERGENCY INCIDENT COORDINATION AT ITALIAN MANUFACTURING PLANT



TRINSEO™

The global materials solutions provider and a manufacturer of plastics and latex binders, Trinseo™, recently acquired French company Arkema's polymethyl methacrylate (PMMA) business. PMMA is mostly used in the automotive, building, construction, medical and consumer electronics sectors. Trinseo™'s Italian chemical manufacturing plants are located in Rho, near Milan, and Porto Marghera in Venice (where a MOTOTRBO Capacity Plus system is installed). These plants are subject to the Seveso Directive, an EU Directive for the prevention of major industrial risks. Over 200 workers are employed at the Rho site, where Altuglas® is produced; and it is a huge plant in a partly residential area. Therefore, very stringent safety norms, including telecommunications standards, are in place. Long-term Motorola Solutions partner ERT had already deployed the VoIP and DECT telephony systems at the Rho site. Trinseo™'s uses Motorola Solutions technology as standard within the company and ERT was chosen, in conjunction with Motorola Solutions distributor Aikom Technology as hardware supplier, to upgrade Rho's emergency warning system.

CUSTOMER PROFILE

Organisation:

Trinseo™

Partners:

- Aikom Technology (Distributor)
- ERT srl (Partner)

Industry:

Manufacturing

Location:

Italy

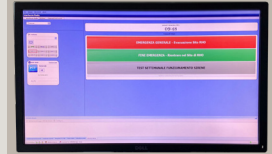
Motorola Solutions Products:

MOTOTRBO system comprising:

- SLR 5500 Two-Way Repeater
- DM2600 and DM1600 Mobile Radios for broadcasting from the control room
- SL2600 Portable Radios
- 5 vehicular radios
- 20 DP4401 Ex and DP4801 Ex ATEX portable radios across 5 working groups in the 5 production areas

“With this new MOTOTRBO and TRBOnet solution, we’ve seamlessly revamped our emergency warning system to the latest tech. This is a ground-breaking system, intelligently installed by our able partner ERT. We can now centrally send out messages to all our different communications channels instantaneously. And the MOTOTRBO technology and radios are delivering as expected. However, it’s the opportunities brought by the introduction of a digital channel and the associated flexibility, scalability and security for future developments that I’m most excited about; we’ll continue to tailor our system for maximum efficiency!”

Andrea Zugni, EHS – Process safety & emergency services, Trinseo™



CHALLENGE

Trinseo™ needs to be able to manage emergencies, fires, accidents or plant evacuations in an efficient and timely manner. The previous plant emergency warning system in place at Rho was completely analogue. Analogue radio-controlled horns in the field and loudspeakers, which had to be cabled into the network, were triggered by analogue switches on an internal, private channel. The horns would sound at the start and end of the emergency. However, the technology, installed in the late 1990s, was now outdated and becoming unreliable, with an increasing number of failures. Trinseo™’s safety team saw that it was time to update the warning system to the latest technology. It wanted a system offering reliability, flexibility, easy management and full resilience. It also needed to be able to integrate its pre-existing devices.

SOLUTION

Following a comprehensive testing phase, including a full emergency response simulation, Trinseo™ has deployed a MOTOTRBO system comprising an SLR 5500 repeater and MOTOTRBO mobile and portable ATEX radios; these deliver clear communications for the safety teams and all those working in the manufacturing environment.

The new warning system enables the digital and analogue technology to operate in tandem and integrates the five elements Trinseo™ uses for communication: the radios, the loudspeakers, the VoIP fixed phones, the DECT portable phones and the TRBOnet control room solution. In the case of an emergency, all parties are informed simultaneously and instantaneously, to declare the start or end of an emergency. Automatic, uniform, pre-recorded messages followed by modulated ramp sound alerts are sent out to the MOTOTRBO portable and vehicle radios, to the loudspeakers (via the mobile radios located in strategic positions), to the office VOIP fixed phones and to the DECT portable

phones. These announcements interrupt any other communications in progress and are repeated several times. Further live announcements, such as which site perimeter emergency exit to use, can be sent out from the emergency room. The on-call officer can also communicate in real time with the Emergency Team in the field from the radio in the emergency room, for the operational management of the incident in progress.

BENEFITS

Andrea Zugni summarises: “This robust, reliable system makes it possible to reach the large number of people working at our site in an emergency. TRBOnet also brings a whole new level of sophistication to the system. Having a system based on digital radio applications means we bypass the installation obstacles, limitations and potential unavailability of LAN services, as well as simplifying the connections; and being able to integrate the DMR with our current radio-VoIP-DECT systems has resulted in an economically scalable solution, which we can model with greater precision. Moreover, we’ve now got reliable radio coverage across the whole site, so we can easily extend our announcement systems to remote or poorly wired areas.”

The MOTOTRBO network opens up other significant opportunities for Trinseo™: for example, the potential use of the second time-slot for selective radio-to-radio calls, service announcements or calls outside the network, as well as further integration with the analogue system via the repeater bridge. The project will keep developing, with further solutions and radios from Motorola Solutions expected to be installed in the near future.

Control room software:

- DM4600 Mobile Radio connected to the TRBOnet computer in the emergency room

Benefits:

- More effective emergency management, as well as compliance with the security and confidentiality standards for data and information
- Mission-critical, robust and reliable DMR radio network that will keep working independently, irrespective of complete LAN or mobile network outages
- System intelligence achieved thanks to the flexibility of the TRBOnet system
- Reuse and optimisation of pre-existing investments (the system works in conjunction with the existing analogue, fixed VOIP and cordless DECT telephony systems)
- Project will continue to develop and grow past the initial requirement to update the siren system, thanks to the stability, flexibility and scalability of the MOTOTRBO system

