

CASE STUDY

TETRA: SPEEDING TURNAROUND WITH SABIC'S MAINTENANCE TEAMS



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Mr. Willem Martens, Assistant Site Facility Coordinator, SABIC. Printed with the kind permission of SABIC

SABIC

SABIC is the largest and most profitable non-oil company in the Middle East, and one of the world's five largest petrochemicals manufacturers. It operates ten facilities in Geleen, Netherlands, based at the Chemelot site: an 800-acre chemical industrial complex located near the city of Maastricht. SABIC's world-class facilities produce materials for automotive, luggage, and food packaging industries, among others. Its facilities occupy 40 percent of the Chemelot site.

SABIC's manufacturing plants periodically undergo planned "turnarounds" that, partially or completely, shut down sites while engineers clean and maintain equipment. SABIC's Site Services Turnaround engineers use a wireless radio network and handsets to communicate with each other while they carry out turnaround. Working closely with ATEX equipment specialists Flash Services, SABIC upgraded its wireless system, equipping users with 510 Motorola MTP850Ex TETRA ATEX rugged portable radios, and 20 units of Motorola MTM800E TETRA mobile radios. The solution provides safe and reliable radio communications for SABIC's engineers, enabling them to work quickly and efficiently. By supporting improved collaboration, the system helps to reduce costly facility downtime that can amount to between €150,000 and €500,000 for each day that a plant is not producing.

Organization

- SABIC

Location

- Geleen, the Netherlands

Industry

- Petrochemical Manufacturer

Motorola Solutions' products

- 510 Motorola Solutions MTP850Ex TETRA ATEX portable radios
- 20 Motorola MTM800E TETRA mobile radios



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'We required a reliable and scalable mobile radio system to enable our engineering teams to work efficiently during turnaround operations at our chemical and plastics manufacturing facilities. Our Motorola Solutions partner, Flash Services Netherlands, recommended a TETRA ATEX solution equipping users with Motorola Solutions' MTP850Ex TETRA ATEX portable radios and MTM800E TETRA mobile radios. The radios provide powerful, quality audio to enable our field team – comprising between 180 and 500 engineers at any one time – to collaborate instantly through ultra-reliable communications. With a rugged, intrinsically safe design and simple interface, the radios are ideal for our demanding working environment, enabling us to schedule work in real time and help teams work quickly and efficiently to reduce expensive plant downtime.'

Rick Streutjens
Facility Coordinator, Site Services Turnarounds, SABIC

CHALLENGE

SABIC manufactures vast quantities of plastic materials at its facilities on the Chemelot industrial site. Its ten plants need to be maintained and cleaned on a regular basis: a process managed by a dedicated turnaround team. During turnaround periods, which can last between two and six weeks, the plant stops production in part or fully for maintenance to be safely conducted.

SABIC defined the need to update its communication system to coincide with a major turnaround project – the overhaul of one of its larger manufacturing facilities – that occurs every six years. The factory in question covers an area of 1 km². The system had to overcome a challenging operating environment: the building's structure comprises steel struts and flooring that can impair radio signals, while over 500 users needed instant and reliable communications services.

SOLUTION

SABIC elected to work closely with mobile communications specialist Flash Services to advise on the design and deploy its new radio system. As well as building the coverage, Flash Services recommended and provisioned Motorola radios for the engineering team. The fleet includes 510 Motorola MTP850Ex TETRA ATEX rugged portables and 20 Motorola MTM800E TETRA mobiles for control operators. Flash Services provides rental and full operational services for the radios for companies on the Chemelot site and is on hand 24x7 to maintain the fleet.

Flash Services was involved in the design and beta-testing phases of the Motorola MTP850Ex TETRA ATEX radios and supplies the devices for several reasons. Specifically, the radios guarantee continuous operation with exceptional quality audio, and intrinsically safe operation ensures

communications services remain accessible in areas where dust and explosive gases might be present. In addition, the radios are very easy to use providing quick access to key features – even when wearing bulky gloves. The system also enables group collaboration. SABIC's teams are arranged into groups of 15 engineers who can listen into each other's reports and communications, and contact the group instantly at the push of a single button.

BUSINESS VALUE

The Motorola MTP850Ex TETRA ATEX rugged mobile handsets provide high-quality and extremely reliable communications with instant group communications ensuring that teams collaborate efficiently and productively.

For Rick Streutjens, Facility Coordinator, Site Services Turnarounds for SABIC, another critical benefit of the radios is ease of use. He says: "The Motorola MTP850Ex radios are simple to use and very reliable, which means our teams can focus 100 percent on the job in hand without usability irritations. And with effective coordination and scheduling our people move efficiently from one job to another."

SABIC's mobile radio solution scales from 180 to 500 users. This caters for turnaround projects that cover small plants, to larger facilities that require a full team of engineers.

The rental option provided by Flash Services ensures that, for a predictable cost, SABIC has a scalable and cost-efficient ATEX communications solution that is tailored to the demanding environment in which its teams work. The reliable, high-quality and instantaneous one-to-one and one-to-group communications improve scheduling and team collaboration to optimize efficiency and reduce expensive facility downtime.

Key Features

- **Multi-user communication:**
The MTP850Ex TETRA ATEX rugged portable radios support individual and group calling
- **Clear calling:**
Powerful and clear audio ensures that important messages and alerts always get through whatever the ambient noise environment
- **Rugged design:**
The radios are extremely robust and are ATEX and IEC-Ex gas and dust compliant
- **Intuitive interface:**
The radios feature large buttons and a simplified keypad set-up
- **GPS location:**
GPS technology is integrated with each radio

Key Benefits

- **Good coverage:**
The radios provide users with clear communication throughout SABIC's ten manufacturing facilities, which have complex steel infrastructures and cover multiple levels and thousands of square feet
- **Usability:**
The interface ensures radios are easy to use even with bulky gloves and key functions are immediately accessible
- **Flexibility:**
The TETRA ATEX solution can be scaled up and down to cover fewer or more users as required
- **Reliable operation:**
The radios provide reliable operation and cope with the knocks and drops commensurate with use by busy maintenance teams
- **Continual improvement:**
Motorola Solutions is constantly adding ATEX approved accessories to meet the needs of customers

For more information on how Motorola Solutions' TETRA products, services and accessories can improve the safety, efficiency and productivity of your facilities and teams, please visit us on the web at www.motorolasolutions.com or access our global contact directory at www.motorola.com/Business/XU-EN/Contact_Us

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