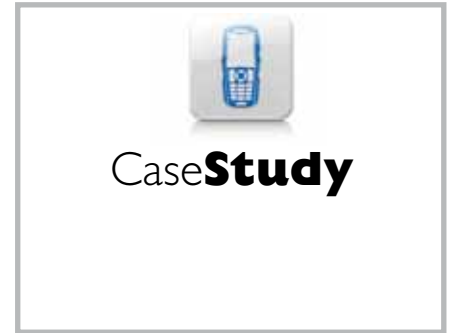


Our customer is the global leader in gases for industrial, medical and environmental-protection applications and operates with a workforce of 46,000 employees in 80 countries. Located in the Netherlands and Specialized in the production and supply of technical and medical gases and the provision of associated services. Safety plays a particularly important role in the production of gases. That's why innovative and reliable solutions are required to meet the high demands that are made on safety during the execution of daily maintenance tasks.



How can efficient work processes be realized with optimum safety for the workers?



Problem

The top priority of this gas manufacturing company was to equip its production location in the Netherlands with the latest technology available for the protection and safety of its workforce. Workers often carry out daily maintenance and inspection tasks throughout the very large work premises either on their own or in small teams, and so a solution that maximized the safety of all

Extensive industrial plants require an optimal personal-location when working alone.

employees was needed. It was also very important to safeguard staff working in dangerous areas where there is a risk of explosions and to make it possible to immediately locate and assist people who have been injured or who are in danger. Which in turn means that it had to be possible to immediately send alarms to the central control station.

The many covered gas piping systems installed at the site, made the use of GPS for locating staff – both indoors and outdoors – difficult, and so a different solution was required for the works premises.



This durable and reliable ATEX Zone 1 & 21 mobile phone is packed with new features that deliver world class connectivity, flexibility and safety. The phone also comes with an extended battery option, but vibration alert and exceptional build quality are standard.

ecom CaseStudy_Ex-Handy 07 LWP_26 / 06 / 12 - ALL RIGHTS RESERVED

InfoBOX

Company:
Gas production company

Application:
Lone Worker Protection with Multi Universal Gateway connection for back and forth alarm messaging.

Area of application:
Daily Maintenance

Product:
Ex-Handy 07 LWP

The solution

“With ecom instruments, the expert for explosion-protected mobile high-end devices, and Mobile Track, the specialist for individual tracking systems, two competent partners were requested to solve this problem,” explained the project manager, responsible for the project at the Gas manufacturer. These two companies worked together to set up a per-

sonal alert system (PAS) that would help protect staff working in dangerous explosive areas and that is based on Mobile Track's MTAG Box, Enterprise Solution (Software), and the Ex-Handy 07 LWP (Lone Worker Protection), a mobile phone for Zones 1/21. This system employs eleven MTAG boxes (ATEX Zone 1) that use the Ex-Handy 07 LWP's Blu-



MTAG BOX ATEX Version - intrinsically safe Box for inhouse-tracking.

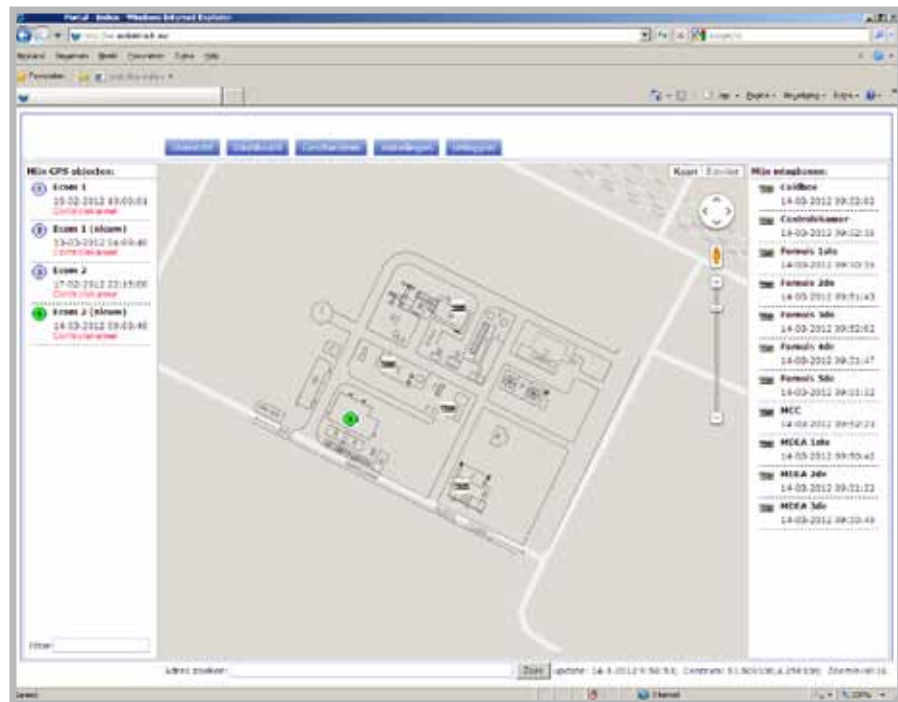
engineering solution makes it possible to know:

- Who is sending the alarm,
 - What triggered the alarm (bearing sensor / alarm button),
 - Where the person is located and How active the person is (is the injured person still able to articulate?).
- Technically, the alarm is triggered by a 3D motion sensor so that workers may also be certain that the alarm will be set off if they fall.

Wherever it is located on the works premises, the Ex-Handy 07 LWP will also be able to receive internal alarms from the control station, including fire alarms, temperature fluctuations, throughput interruptions and so on, as soon as they are transmitted by the control station. This means that it is possible to immediately inform all members of staff of any risks that exist on the works premises. In order to realize this additional service, Mobile Track modified the personal alarm system software and incorporated the alarm into the existing "IT alert system".

Benefit

The use of the ATEX-certified Ex-Handy 07 LWP for Zones 1 and 21 means that the staff responsible for safety are always aware of the location of any workers in trouble – which in turn means that assistance can be provided quickly. The combination of such different functions as GPS, man-down alarms, position sensors, impact, panic and time alerts in a really robust mobile phone made to meet IP68 protection standards means



Individual map for the exact location of endangered employees.

etooth signal to locate staff working on the premises.

The mobile phones are identified as they pass by these MTAG boxes, this makes it possible to determine at all times where individual workers are located. It doesn't matter here whether the employees are working indoors or outdoors. The customized software that is built on the already existing "IT Alert" control-station system is then able to determine precisely when and where a member of staff requires assistance.

This outstanding solution means that staff at this customer site in the Netherlands can be located anywhere across four three-storey buildings. To this end, the entire works premises were mapped geographically within the central control station's IT systems.

They even made it possible to transmit different alarms and messages to the Ex-Handy 07 LWP devices, which the individual workers will then be required

to acknowledge. For safety purposes, an emergency alert will be automatically triggered if a worker does not acknowledge the signal.

Several telephone numbers can also be stored in the Ex-Handy 07 LWP. These will be automatically called when any kind of alarm is triggered. As soon as the control station takes an alarm call, a connection will be immediately established and the mobile phone will then automatically activate its loud hands-free mode. This means that communications can be established irrespective of whether the person who has suffered the accident remains mobile or not. While communications are being established, ecom's Ex-Handy 07 LWP will simultaneously transmit the stored GPS coordinates to the control station via a text message. This data is received via a GSM modem and will then be displayed in the station's computer maps. This thought-through



that mobile communications and worker safety can be realized in just one device. With the Ex-Handy 07 LWP by ecom instruments and the Track and Trace software by Mobile Track, an absolutely reliable personal alert system that allows workers to be contacted at all times has been created which in turn means that all safety requirements can be fulfilled.

Conclusion

The project manager has confirmed that – with ecom instruments for mobile explosion prevention and Mobile Track for LWP – the gas company has found two reliable and extremely competent partners who were able to respond to its individual and sometimes very complex demands.

Final conclusion by the project manager: “Thanks to ecom instruments and Mobile Track, we as a gas manufacturer now possess one of the most innovative and reliable lone-worker-protection Zone-1 solutions currently available. Which means that our workers are most certainly safe!”



Complex construction of industrial plant make it difficult to locate endangered employees via GPS, it requires a individualized systems to locate.



inhouse tracking



LoneWorkerProtection

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