



Alerting in Switzerland's largest wastewater treatment plant

Reference report on Werdhölzli wastewater treatment plant in Zurich (ERZ)

An extensive site with open pools, underground channels and large engine rooms: This kind of infrastructure holds many risks for employees. The employer has a duty of care to put in place measures to protect lone workers and locate them in an emergency. The Werdhölzli wastewater treatment plant in Zurich uses a Swissphone alerting system that fulfils all relevant requirements.

Every SWISSPHONE TRIO is equipped with GSM and GPS modules. This means that when an alert is sent, the position is also displayed in the ERZ customer service centre, which is staffed around the clock. Swissphone's web-based SOS portal is used there. Felix Egli, Project Manager Telecommunication at ERZ, explains further: «A site map or plant layout is stored in the alerting system, which allows us to locate the incident immediately with high precision – even from other locations or by logging in at home in an emergency.»



«We have laid the foundations to ensure quick assistance.»

Felix Egli, Project Manager Telecommunication

Alert with the press of a button

At this plant, employees carry a compact, robust SWISSPHONE TRIO personal alarm system device. If someone gets caught in a dangerous situation – when rapid movements are registered, suggesting a fall, for example – the device automatically sends out an emergency call, triggers an alert and transmits the position data every 30 seconds. It also sends out an acoustic alarm to make it easier to find the accident victim. The employee can also press the emergency signal button manually to trigger an emergency call, if he or she is still capable of doing so.

About the Werdhölzli wastewater treatment plant

The Werdhölzli wastewater treatment plant is operated by Entsorgung + Recycling Zürich (ERZ), and is the largest plant of its kind in Switzerland. A total of 95 employees keep the facility running smoothly, and on-call service personnel in particular often find themselves travelling through the grounds alone. The Werdhölzli wastewater treatment plant processes wastewater coming from Zurich and several neighbouring districts. When the weather is dry, around 3,000 litres of wastewater flow into the plant every second; in wet weather, the quantity can be up to 6,000 litres. This explains why the Werdhölzli plant is Switzerland's largest wastewater treatment plant.

Exact positioning

GPS is used to locate employees working outdoors. Inside the buildings, ERZ has installed around 60 IBT indoor position transmitters to enable position determination. The alert messages can also be sent directly to the smartphones of nearby colleagues via the ERZ customer service centre. «This is how we have laid all the foundations to ensure quick assistance,» says Felix Egli. «In addition, the accident victim immediately receives a text message, confirming that the alert was received and that help is on its way.»

«The Swissphone solution is economical, runs reliably and has proven itself in practice.»

Felix Egli, Project Manager Telecommunication

Reliable communication with TELEPAGE®

To send alerts and messages when employees undertake off-site duties, ERZ uses Swissphone's national TELEPAGE® radio paging network, which operates more reliably than conventional radio networks. The alerting system is also used together with TELEPAGE® to send technical alerts to on-call service personnel.

In introducing this solution, ERZ has replaced an older alerting system for its wastewater treatment plant, and, in so doing, was able to draw on existing experiences within its own company. ERZ uses similar Swissphone systems in other business areas: at the Hagenholz waste incineration power plant and inside a six-kilometre-long tunnel for the district heating system, for example. The ERZ employees can therefore work with the same device in multiple locations and still be protected. Felix Egli continues: «The Swissphone solution is economical, runs reliably and has proven itself in practice.»

Components of the Swissphone solution

Hardware

- SWISSPHONE TRIO
- Indoor position transmitter
- GSM repeater

Software

- SOS.selfcare

Network connection

- TELEPAGE®