Case study

TWIG lone worker alarm devices ensuring operator work in pharmaceutical production plant in Mexico

TWIG One

TWIG Beacon SRD
TWIG Beacon Ex SRD

Area and use specific device settings

ManDown settings defined by area and user
Each area is related to a device with specific ManDown sensitivity value according to the type of tasks the user performs in that specific area.

Text messages with beacon name and location
TWIG personal alarm device display names of nearby beacons. In the event of an emergency, text messages are sent with the GPS coordinates (if available) and the name of the nearest beacon to responsible persons in predefined order.

Handsfree calls
After sending the SMS messages, a cycle of telephone calls begins with the speaker activated so that the operator does not need to bring the device close to his mouth to request help.

Deactivation of voice mail
All phone numbers configured for the SOS cycle events have deactivated voice mailboxes with their mobile phone company.

White list
The phone numbers of the emergency contacts are also added to the white list and the Twig Protector Pro has been configured to automatically answer incoming calls from those numbers. The ability to receive calls from any other phone number has been disabled.

SOS cycle
The SOS cycle has been configured to call and send sms to predefined telephone numbes in predefined order. The cycle of SMS and calls is repeated 4 times.

Requirements
• The pharmaceutical product plant in Mexico is certified by the United States FDA for the manufacture of medicines consumed worldwide.
• The regulatory requirements for the quality and production are demanding.
• As part of the operational processes, employees are required to make continuous monitoring and maintenance rounds in all production areas.
• Many of monitoring and maintenance processes of the giant chemical processing machines require human intervention occasionally.
• Operators need to be able to perform their tasks alone without the presence of another colleague.

Lone worker system components
• TWIG Protector Pro lone worker alarm devices including 3G mobile network, GNSS satellite positioning, fall and non-movement detection and compatibility with TWIG short range devices (SRD).
• TWIG SRD beacons installed in 17 different areas
• Mobile phones for alarm receiving at factory
• Repeaters

Benefits of the selected solution
• With help of the lone worker solution provided by Aspíliga the duplication of work shift costs and complicated shift roles are avoided. In general at least two persons per task are required to ensure the safety of operators during their monitoring and maintenance rounds.
• Employees carrying the TWIG personal alarm device can perform their tasks alone with the confidence that their area colleagues, direct supervisors, safety and hygiene personnel (the project sponsors) as well as the plant security personnel are immediately informed of any anormalities.
• Additionally, supervisors have gained in communication with their operators, as they use the TWIG Protector Pro as a means of rapid information sharing within the plant.

More information about TWIG personal alarm devices on www.twigcom.com or by mail sales@twigcom.com.

More information about TWIG distributor Aspíliga on www.aspiliga.com or by mail info@aspiliga.com.

TWIG devices

TWIG Protector Pro
(replaced with TWIG One in 2020)

- 2G/3G
- Dedicated SOS key
- Powerful speakerfphone
- Short cut dial keys
- Scalable settings
- 2-way hands-free voice calls
- SOS cycle with 10 phone numbers
- Indoor and outdoor location
- Remotely configurable
- Automatic ManDown detection on fall, non-movement or impact

TWIG Beacon SRD

- Short range device beacon for indoor location
- Compatible with TWIG personal alarms equipped with SRD3 option

aspíliga
Safety technology for life

Aspíliga

- A TWIG distributor in Mexico with more than 7 years of experience that offers in Latin America and Europe the most advanced, powerful and reliable security solutions (Safety & Security) for people of any age, role or occupation that perform their activities alone or in groups.
- Aspíliga offers solutions that allow a life in freedom and protected in any security emergency through forklift accident avoidance system and devices for lonely workers in exigent internal or external environments.

Shifts start with charged device

When an operator starts his day, he takes one of the devices assigned to his area and carries it with him in carrying case fastened on his work shirt or on his belt. All lone worker alarm devices at site are always docked in the charging station when not in use.

Devices dedicated to each area and user task

The TWIG Protector Pro lone worker alarm devices have been configured for specific areas and situations. The device may be activated few times during the shift. All operators are trained for device use e.g. how to confirm they don't need help in case of false alarm or condition checking.

ManDown alerts on fall and non-movement

Also for ManDown alarm on fall and non-movement detection each area modifies the sensitivity settings according to the type of tasks it performs. In some areas the sensitivity is much higher than normal because the operators perform maintenance tasks in which they only move their hands. Also it has been agreed that the confirmation of the normal condition from the operator is always preferred rather than risk not receiving an alert. The device has been configured to wait 30 seconds before starting the emergency cycle.

Priority to beacon location

Operators do not work only in their own building but can move to other buildings of the plant and even perform some tasks in outdoor areas. For easy location the TWIG device sends GPS coordinates in Google Maps format. Supervisors know that if a text with the name of any of the beacons arrives, they must give priority to the beacon as a location identifier. The message include also the names of nearby beacons. In some areas, up to 3 beacons have been arranged to ensure coverage because of the huge stainless-steel machines that reflect the radio signals.

Mobile signals strengthened with repeaters

In some cases, employees work in basements or warehouses in which construction prevents the passage of mobile phone signals. For this reason, 3 signal repeaters have been installed so that at least the SMS messages reach the emergency contacts without any problem.

SOS cycle

In the event of an emergency, text messages are sent with the GPS coordinates (if available) and the name of the nearest beacon to contacts in a defined order: 1. plant security 2. direct supervisor 3. area manager 4. health and safety leader. The contacts have been to be asked to deactivate their voice mailboxes with their mobile phone company to avoid the SOS cycle to be stopped.

After sending the SMS messages, a cycle of telephone calls begins with the speaker activated so that the operator does not need to bring the device close to his mouth to request help. The order of the calls is the same as that of the SMS. The cycle of SMS and calls is made up to 4 times.

White list

The phone numbers of the emergency contacts are also added to the white list and the Twig Protector Pro has been configured to automatically answer incoming calls from those numbers. The ability to receive calls from any other phone number has been disabled.