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Lat-Lon goes international

CHLORINE US-headquartered wireless monitoring provider Lat-Lon has deployed an innovative system to monitor and track chlorine tanks. At the same time, the company has begun utilising two communication technologies that make its services accessible internationally

Lat-Lon's new chlorine monitoring system has been deployed on rail tank cars in the US in conjunction with the company's flagship RailRider tracking product. In addition, however, Lat-Lon says the system, which provides real-time chlorine release detection, is suitable for use with virtually any chlorine transport asset. Furthermore, Lat-Lon is seeking to market the chlorine monitoring system internationally along with its full range of offerings.

The chlorine monitoring system includes both an immediate alarm to signal a chlorine release and a hatch-open/close detection function, which is aimed at identifying tampering during transit. The system can also provide, in real-time, the GPS location of alarm events and scheduled location updates for fleet management purposes. Received messages are accessible via Lat-Lon's website, where an interactive map shows the status and location of tank cars.

"Chlorine, of course, is an extremely hazardous chemical and even small releases can be fatal," says Lat-Lon sales manager John Felty. "But we now have systems mounted on rail cars where, if the hatch is opened at the yard during the unloading period, the GPS tells us, in effect, 'well, the hatch is opened, but the tank is where it should be,' so that's okay. But if the hatch is opened between the loading area and the unloading area, that's a different situation – that's an emergency situation and should trigger security. In such an event, we have fast, accurate ways for relaying information about both tampering or the actual release of the chemical in question."

Sophisticated systems can help ensure safety in transit

One tough tracker

Unlike other chlorine sensors on the market, the sensor Lat-Lon uses in its new system, the CL2 detector, lasts for "years" even with repeated exposure to chlorine and other chemicals encountered in typical transport environments, the company says. In addition, the system is designed with the aim of keeping sensor calibration to a minimum. For the user, Lat-Lon says, these two factors result in a faster return on investment.

The introduction of the chlorine monitoring system comes fast on the heels of Lat-Lon's launch of the latest generation of the RailRider product – RailRider IV. This unit adds to its patented design an injection-molded high-impact case, which Lat-Lon says allows it to be "smaller, lighter, and tougher" than the previous model. In addition, the RailRider IV provides two breakwire circuits and two serial data interfaces and increases the analog inputs from two to four with 0.1 per cent precision. The system can operate without batteries and is fully self-contained with all antennas and solar panels integrated into the enclosure.

"The new RailRider keeps us solidly in front of the competition by providing what our market wants – smaller size, greater functionality, more sensor support, and a life capability far beyond five years," says Dave Baker, Lat-Lon president. "And the best news for customers is that the new design allows us to significantly reduce our pricing for volume orders."

In addition, both the new generation RailRider and the chlorine detection system are now available to international markets, thanks to Lat-Lon's recent adoption of two globally accessible technologies, the LEO satellite system and the CDMA cellular communications system.

Global transmission

LEO stands for 'low earth orbit'. Geo-synchronous, high-orbit satellite systems, which are frequently utilised for localised applications, have a fixed position relative to the equator and provide coverage dedicated to particular regions. Often opposing technologies using this type of system cover different parts of the globe. But the LEO system satellites circle the globe so there are no missing coverage areas.

"What that means to people is that it's a truly global system, and you can cover everywhere," explains Felty. "It takes a lot more satellites, but you get true global coverage even, for example, over the Atlantic. So we have the ability now to transmit through LEO, and that's quite important for us as we move forward and expand to international markets such as Europe and Asia."

The company began using the LEO system when it recently entered into an international container tracking contract, and it plans to vigorously pursue other such international sales. In the US, Lat-Lon developed a niche in rail car tracking because of its reputation for producing durable and free-standing products; its offerings are typically weather-proof, shock-resistant and self-powered (usually solar powered) wireless monitoring devices. But internationally the company will focus its outreach on both rail and non-rail container tracking markets. Its non-rail offerings are frequently branded under the RoadRider name.

Meanwhile, Lat-Lon says the CDMA technology it now employs allows it to offer low-cost broadband data communication, and the company is currently installing systems utilising the technology in Canada. Lat-Lon is confident that the CDMA and LEO technologies, along with its innovative chlorine monitoring system, will enable it to play a pivotal role in international markets going forward. "We are the only company that I know of who has a marketed, deployed system for monitoring chlorine release on movable assets," says Felty. "There are companies that sell things like stationary sensors that you can wire up to a power supply and a phone line, but this is something that's completely mobile and self-powered. Furthermore, it is not something that we hope to do in a year, it is something that we have installed, and it is running now and has been running for six months."

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