Dangers of Vehicles Movement

One of the greatest areas of risk in any workplace occurs where vehicles and people interact. One of the biggest killers in the work place is workers' complacency to this risk. Complacency causes 30% of all accidents.

SAFEmap Technologies has developed RISKalert which is a unique system designed to enhance safety in high risk industrial situations. It is designed in such a way that workers will not become complacent to the risk. RISKalert can be tailored to meet the specific needs of individual companies.

The RISKalert System comprises three different modules which can be integrated or employed independently.

- **STARTalert and VOICEalert** warns when starting new actions in the vehicle such as turning ignition on, engaging reverse, moving forward or moving backwards.

- **PROXalert** warns when a tagged vehicle or person is getting too close to a vehicle.

- **SITEalert** warns when the vehicle enters a tagged area which designates high risk such as blind corners, dangerous crossings or unsafe areas.

It consists of RF receivers, transmitters and sensors that are installed on vehicles and equipment and managed by powerful software programs.

RISKalert is based on years of research and development and trials have recently been concluded. We are now installing custom designed versions of the system at several different companies around the world.
The interaction of people and mobile equipment is a critical area of risk in most modern work places, especially in confined work areas.

Employees develop a natural reaction of treating these risks with intuition, followed by increased tolerance of the risks and eventually complacency.

The risk increases when there are unexpected movements of vehicles. High risk situations also occur when vehicles move around corners, pull away from a stationary position or ‘appear’ unnoticed because a pedestrian or a driver’s attention was distracted.

Traditionally, several approaches have been designed to manage this problem. The most common applications are the use of safety procedures; the implementation of personal protective equipment such as reflective vests; warning systems (e.g. reverse beepers); or close supervision of identified high risk situations.

To avoid the likelihood of complacency, a risk alert system should only be activated when the risk is imminent. RISKalert is such a system.

RISKalert was developed by behavioural experts and based on practical situations in high risk environments. It is underpinned by sound research.

These so-called ‘passive’ warning approaches have not proved to be effective in reducing accidents. Too many accidents and incidents still occur across all industries.

They are ineffective because they become part of the risk situation and employees become complacent to the systems.

As an example, reversing beepers continually sound whenever mobile equipment engages the reverse gear. As a result, the beeper quickly becomes a routine and ignored part of the work environment.

What Is the RISKalert Solution?

STARTalert and VOICEalert

STARTalert is the basis of the RISKalert system. It is a patented electronic system that utilises state of the art technology to automatically warn the public when the vehicle status changes.

Alert signals are generated when certain events occur. The alert signals then activate the vehicle hazards lights and horn.

Both driver and pedestrians are immediately more alert.

The system may be configured to detect any of the following:

- Ignition on
- Reverse movement commenced
- Vehicle entering a dangerous area. (This option requires integration with the SITEalert system and SITEtags).

STARTalert Characteristics

The STARTalert system:

- Automatically warns pedestrians that the risk situation close to a vehicle has increased.
- Is designed to operate in industrial environments and is ideal for use in harsh environments (e.g. dust, mud, fog, smoke, hot, cold and darkness).
- Is designed and built to a target of zero false alarms.
- Can detect forward and reverse movements
- Can be configured to give VOICE ALERTS
What are PROXalert and SITEalert?

PROXalert

PROXalert is based on the STARTalert technology, but creates immediate warnings if two objects are in too close proximity. For example, vehicles fitted with PROXalert will activate the horns and flashers of the vehicles if they are in a dangerously close situation.

The system can be configured to signal only certain types of warnings, such as when large trucks and small vehicles are in the same area, while it may not alert when two large trucks are in close proximity.

Tiny transmitters may even be fitted to the clothing of employees who work in close proximity to dangerous machines and configured in such a way that warnings are given when they move too close to equipment.

SITEalert

SITEalert is the highest level of the RISKalert system. It combines the STARTalert and PROXalert system in unique ways to provide maximum protection on your site.

Our experts conduct a risk analysis of your site to identify the locations of highest risk. There may be locations where employees have to cross a road at ‘blind corners’, or where vehicles can potentially be involved in accidents. These positions can then be protected with SITEalert. Transmitting beacons, or SITEtags, are located at these high risk locations. The SITEtags trigger the SITEalert systems of vehicles moving into that danger zone. Other drivers or pedestrians are also alerted to the impending danger.

Typical Applications

RISKalert's capability, combined with its rugged construction and ease of use, makes it an ideal risk management tool. It will assist in the reduction of collisions in situations where vehicles interact with people. RISKalert has application to a wide range of industries, including:

- Engineering, Mining & Construction Industry sites.
- Large factories with vehicles moving inside the factory or industrial areas.
- Large warehouses using forklifts and other vehicles.
- Fleets
- Manufacturing / Handling / Storage.
- Environmental Services Industry.
- Bitumen and Concrete Industry.
- Transport Industry.
- Agricultural Industry.

RISKalert is particularly valuable in poor visibility situations where the risk of collision between equipment and people is increased.
SAFEmap is an international safety consulting group based in Australia. It was founded by Corrie Pitzer in 1994 and is today regarded as one of the foremost safety consultancies in the field of Behavioural Safety Management in the mining, processing and manufacturing industries in Australia and has received widespread international recognition.

SAFEmap provides a balanced focus on behaviour and a total solution of advanced safety techniques, systems and tools and a range of consulting services that focus on the most critical aspects of safety, namely the management of:

- Organisational dynamics
- Employees’ risk taking behaviour
- Core risks
- Safety systems

There are four main offices. The Head Office is in Brisbane and focuses on Australia-wide and International operations. The office in Sydney is responsible for New South Wales and Southern Australia. The Perth office covers Western Australian and South East Asia operations, and SAFEmap (Africa) is based in Johannesburg in South Africa.

SAFEmap is a flexible organisation that, through a number of associates and alignments, can deliver services to small and large clients alike.

SAFEmap Technologies Pty Ltd is a subsidiary of SAFEmap and complements the behaviour-based systems and tools with Dynamic Risk Alert Systems.

SAFEmap clients include:
- Placer Dome International
- BOC South Pacific
- Transfield Services
- Companies within BHPBilliton
- Xtrata
- Thiess
- CSR

The benefits of using the RISKalert are obvious:

- Reduced numbers of accidents/incidents
- Savings in accident costs
- Dollar savings in downtime
- Increased risk awareness
- Increased productivity

SAFEmap experts design site-specific solutions taking into consideration your unique circumstances and risks.

With RISKalert, risks can be managed proactively with the assurance that the expertise and experience of the SAFEmap team are behind you.

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