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Ensuring safety for solo workers with technology

Rick Pedley
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In today's dynamic work environments, an increasing number of employees find themselves working alone. This can be due to the nature of the job itself, flexible work arrangements, or even unexpected situations. Whether it's a security guard patrolling a late-night shift, a delivery driver navigating remote locations, or a maintenance worker conducting repairs out of sight and sound of a colleague, working alone presents a unique set of safety challenges.

While working independently can offer autonomy, efficiency, and flexibility, it also means there's no one readily available to assist in an emergency. Fortunately, technology has provided many solutions for mitigating the risks associated with working alone. Below, we explore some of the overlooked hazards of working alone and delve into the various considerations for enhancing lone worker safety.

Understanding the risks of working alone

For employers, protecting lone workers usually involves providing the proper safety gear and equipment, such as sun and heat protection, high-visibility gear, gas monitoring instruments, and fall prevention systems. While these protect workers from known occupational hazards like environmental conditions, toxic gases, and working from heights, these safety measures often fall short in the face of unforeseen circumstances, which can include the following:

- **Medical emergencies:** In a medical emergency, such as a heart attack or severe injury, the lack of nearby colleagues almost ensures critical aid will be delayed.
- **Violence and aggression:** Lone workers, particularly those in public-facing roles like security personnel or those handling money, are more vulnerable to assaults and violent encounters. According to the National Safety Council (NSC), 23% of all workplace homicides between 2011 and 2020 involved lone workers.
- **Psychological strain:** The isolation and lack of social interaction inherent in lone working can contribute to feelings of stress, anxiety, or loneliness. These psychological states can negatively impact a worker's judgment and overall well-being.

Of course, accidents and injuries, such as falls, slips, machinery malfunctions, or exposure to hazardous materials, are always a concern for lone workers. Even with the proper safety equipment, it will take their colleagues some time to respond should something go wrong.

Safeguarding lone workers with due diligence

To mitigate these risks, companies must establish comprehensive safety protocols tailored to the needs of lone workers. Here are some essential safeguards to put in place:

Risk assessment

Conduct a thorough risk assessment to identify potential hazards specific to lone workers, including which personnel might be considered "hidden lone workers." The Occupational Safety and Health Administration (OSHA) defines a lone worker as "an employee working alone, such as in a confined space or isolated location." However, it's easy to overlook employees left alone when a colleague takes a break, staff traveling alone during work hours, or those working alone in populated areas.

While not technically "alone," hidden lone workers are subjected to similar (if not more unique) hazards as those working in isolation. When conducting lone worker risk assessments, evaluate the nature of the tasks, the environment, and the employee's health condition.

Safe work procedures

Establish clear and detailed work procedures specific to lone working scenarios, including proper use of equipment, safety protocols for particular tasks, and emergency procedures. Here are some examples:

- **Equipment training and familiarization:** Ensure that all lone workers are thoroughly trained to use the equipment they'll be operating. This includes personal protective equipment (PPE) and other specialized devices.
- **Task-specific guidelines:** Develop detailed guidelines for all tasks lone workers are likely to perform. This should include step-by-step instructions, potential hazards associated with each task, and measures to mitigate those.
- **Role of supervisors and monitors:** Clearly define the roles and responsibilities of supervisors and remote monitors in case of emergencies. They should be trained to provide immediate assistance, coordinate with emergency services, and ensure that all lone workers are accounted for during an evacuation or rescue operation.

Review these procedures regularly, encouraging feedback from lone workers to incorporate the realities on the ground and potentially hidden occupational hazards.

Communication protocols

Implement communication protocols, such as scheduled check-ins via phone calls, text messaging, or specialized monitoring apps to ensure lone workers are always accounted for. These guidelines should establish specific check-in intervals based on the risk level of the tasks and environments. It should also include non-response procedures, such as escalating check-in attempts or dispatching colleagues to the lone worker's location.

Protecting workers with technology

With the abundance of available devices and applications, lone worker technologies can be as simple or complex depending on the nature of the job and the employer's resources. For example, mobile apps designed for lone worker safety offer features such as check-in reminders, panic buttons, and man down alarms. Some of these technologies are also integrated into other equipment, such as advanced personal gas monitoring instruments, automatically notifying supervising personnel if a unit has been immobile for a predefined amount of time.

Here are other wireless devices to consider:

- **GPS trackers:** These devices let you monitor the location of lone workers in real-time, enabling faster response times to emergencies.

- **Two-way radios:** Reliable communication is essential for lone workers. Two-way radios ensure workers can call for help or report issues without relying on cellular networks.
- **Wearable technology:** Smartwatches and other wearable devices with health monitoring features can track vital signs and detect anomalies. They can automatically alert supervisors if a worker's health metrics deviate from the norm. Some devices also have SOS capabilities, allowing workers to send a distress signal with a push of a button.

Final words

As effective as these technologies are, these devices require proper maintenance to perform as expected. If a device fails or stops recording information, lone workers will not be able to depend on this additional safety net. Mandate pre-shift inspections to ensure these safety equipment are functioning properly before going out in the field.

Some employees may perceive these technologies as an invasion of privacy. Organizing safety training sessions addresses privacy concerns and helps educate employees about how these devices protect them from potential hazards and unforeseen circumstances.

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Rick Pedley, PK Safety's President and CEO, joined the family business in 1979. PK Safety, a supplier of occupational safety and personal protective equipment and manufacturer of their own new FR line Grit, has been operating since 1947 and takes OSHA, ANSI, PPE, and CSA work safety equipment seriously. PK Safety's customer service can be reached at 800-829-9580 or online at https://www.pksafety.com/contact-us/.