



FIRE & EMERGENCY PLANNING

Inclusive emergency planning

It is every employer's responsibility to provide a safe workplace for all employees, including those with disabilities. The workplace presents many potential hazards for workers with disabilities during an emergency or disaster. CLAIRE RENCKEN reports

Planning for alternative communications as well as inclusive evacuation and recovery procedures is of key importance to employee safety in disaster situations – ranging from fires and floods, to hazardous materials incidents and earthquakes. Knowledge, planning, and practice will protect workers with disabilities and save lives.

Examples of how disabilities will impact emergency planning

- The deaf and hard of hearing may not have the ability to hear or react to emergency warning systems or aural instructions.
- Visual disabilities will affect a person's ability to identify escape routes, directional information, instructions, objects or hazards. This will increase their evacuation time.
- Mobility disabilities may affect a person's ability to independently leave the worksite, use stairs or open doors.
- Respiratory disabilities may affect a

person's ability to walk long distances and perform tasks that require excessive physical activity, such as evacuating a building. These limitations may be exacerbated by smoke, dust, fumes and chemicals.

- Speech disabilities, such as difficulties with articulation, voice strength, language expression or total loss of speech, will affect a person's ability to communicate during an emergency.
- Cognitive disabilities may affect a person's ability to respond to emergencies in the following ways: memory loss, problems with orientation, distractibility, perception and difficulty thinking logically.
- Mental illness or mental disorders are health conditions that are characterised by alterations in thinking, mood or behaviour. These may be exacerbated in an emergency situation.

EVACUATION OF WORKERS AND VISITORS WITH MOBILITY DISABILITIES

Not every emergency requires a full

evacuation of the building. There should be plans in place for a number of evacuation options:

- **Horizontal evacuation:** This uses exits that are horizontal to the ground level or moving into unaffected wings of the building.
- **Stairway evacuation:** Stairs are used to reach the ground level exits of the building.
- **Area of refuge:** A member of the worker's network will assist the individual who has a mobility disability to the safe refuge area and will then inform on-site emergency personnel and/or first responders of the location. (Areas of refuge should be used as a last resort. All other options should be considered first. However, choosing to wait for first responders in order to evacuate is a personal decision of the employee with a disability.)

In their emergency plan, employers should include the evacuation of mobility devices along with the user of the equipment.



Workers and individual contractors with disabilities need to take certain responsibilities upon themselves. These include ensuring that there is a personal preparedness kit on site, containing the following: extra medications; personal assistive equipment and devices; extra batteries; and food for specific dietary needs.

Wheelchair users should have a tyre repair kit or extra tyres in case one is damaged during the emergency | **SHEQ**

PUTTING A DAMPENER ON FIRE DAMAGE

Property damage and physical injuries related to fire are more prevalent during the extinguishing phase than as a result of actual contact with the flames.

I-CAT Environmental Solutions is an official supplier of Telesto's EXTINGUISHmist, which is a handheld water-mist fire extinguisher able to suppress all common causes of fire without collateral damage to property, humans, animals and the environment.

I-CAT non-executive director, Professor Jan du Plessis, notes: "This has the potential for enormous cost savings. When using conventional equipment, only five percent of water directed at the fire is actually used for extinguishing it. The remaining 95 percent floods the surroundings. With EXTINGUISHmist, a superfine 'dry to the touch' mist is emitted that quickly vaporises in the fire zone."

Comprising de-mineralised water, the mist is also 100-percent safe to humans, animals and the environment. Du Plessis explains: "The product is so safe that it can be sprayed directly onto victims threatened by fire, allowing responders to swiftly and effectively execute rescues."

In addition, the product's universal application across all common fire classes accelerates fire incident

response, and reduces the need to carry multiple types of equipment. "Equipped with EXTINGUISHmist, responders can attack a fire immediately without having to worry about whether the agent is appropriate for the type of fire."

The small amount of water sprayed from the extinguisher – just six litres per minute – also guarantees a firefighting capacity that lasts ten times longer than traditional hoses.

It also has a high degree of dispersion and forms a large screening surface or "halo". It uses just one percent of the volume of water used by fire hoses and the mist generated is far more effective.

"People who are shielded by this mist barrier can survive even in close proximity to a powerful fire. It protects fire-fighters and victims from thermal radiation and smoke. The mist contains air and, therefore, it allows people to breathe freely, preventing asphyxiation and buying time in rescue operations," concludes Du Plessis.

The portable fire extinguisher consists of a proprietary nozzle and phase regulator that can be incorporated with any manufacturer's cylinder and valve, including the stored pressure or cartridge type. The technology is also available in a hose and reel device that can be mounted onto fire trucks, vehicles and trailers.