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Electric Gate Crushing Zones

The risks to pedestrians from crushing zones on electrically powered gates

Background

Two recent, separate, incidents that both led to the deaths of young children have highlighted a risk of using automatic vehicle access gates. (These incidents are in addition to an earlier fatality, which also involved a young child in 2006, and other recent near misses). Whilst these recent fatalities involved automatic sliding gates, similar hazards exist with all powered access gates.

In both the above cases, the children were trapped between the closing edge of the gate and the gate post at the end of the gates' travel. They were trapped because:

- their presence in the vicinity of the closing edge was not detected.
- the closing force of the gate when they obstructed it was too great.

The HSE has issued guidance to the industry following these incidents which will be of particular interest to gate manufacturers, gate installers, those involved in the commissioning of electrically powered gates, organisations involved in construction projects (including the installation of gates), and persons or organisations in control of premises where **persons other than their own employees may have access to such gates (such as site management and/or lettings agents).** (HSE Safety Notice FOD WSW 1-2010)

What you need to know

These are the things you need to do if you are responsible for or have installed or modified electrically powered gates in areas that people have access to. They might also apply to you if you are responsible for ensuring the maintenance of the gates.

- Ensure the installer has the right test equipment to measure closing/opening forces. If they don't have this equipment, you can't be sure that the gates meet safety standards.
- When they are opening and closing, the force of the gates should be limited to those in the British/ European standards. The gates should also reverse if they hit someone or something.
- The gates should have sensors that can stop them if someone has been detected. This could be light beams (photoelectric devices), which stop the gates before they reach an obstacle.
- If there are parts of the gates where someone could become trapped or get crushed while it is moving, these need be protected. People could get injured, for example, as the bars of the gates pass the gate post.
- The gates must have an emergency release mechanism in case someone gets trapped.
- When you are sure the gates have been installed safely - and met all of the relevant safety requirements - the installer should apply a CE mark, so people can be confident the job has been done properly. You must also keep details of the installation, and of any tests, in a technical file.

What you need to do

Ensure a suitable and sufficient risk assessment has been undertaken by the installer or other competent person, to identify any hazards and associated risks to persons using the gates. This should include consideration of the following:

- The identification of any trapping and/or crushing zones where employees or persons not in your employment (such as contractors or members of the public) may become trapped and injured.
- The identification of ways in which safe operating systems (such as key-pad or key-fob systems) may be defeated or by-passed and place employees, non-employees (such as contractors), or members of the public at risk. This is particularly relevant where children, members of the public, or persons not familiar with the safe use of any installation have access to electrically powered gates and may not recognise a risk to their safety.
- The identification of ways in which persons may be harmed by the gates should they be activated automatically, or by another person (for example, by a sensor under the road surface activating a gate when a car drives over it, or by a remote button or key fob pressed by a third person).

Next you will need to identify the means to eliminate and/or control any risks identified from the risk assessment(s). Wherever possible risks should be eliminated, but where they need to be controlled technology such as fixed guards, pressure sensitive strips, safety sensor flooring, light barriers or infra-red detectors may help control and/or reduce the risk, but consideration needs to be given to how a person may still be harmed if one of these systems fail.

Persons adopting the responsibility for the management and maintenance of the gates should be provided with the appropriate safety documentation, instructions for use, and training in how to operate and maintain the gates safely. Persons using the gates regularly should be given appropriate information, instruction and training on how to operate them safely.

For more information please contact us on **0845 058 9999** or visit our website: **www.metrosrm.co.uk**

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