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## Guarding of Pits Advice Document

Various types of equipment in the Laundry Industry require a pit or floor channel adjacent to or beneath the machine to facilitate its operation or maintenance.

Most common are 'trailing run and spreading' floor channels for sheet feeding systems and cabinet roller towel beater pits, both of which are in front of calenders and as shown, can be effectively guarded to ensure their safe operation.

There are many others; foundation/access pits in which calenders are installed, those for horizontal belt conveyors and vertical bag-lift conveyors, drainage channels for CTW lines and washer-extractors as well as the vehicle workshop pit and the effluent sump.



Such pits and troughs may present a hazard. The accompanying risks of slips, trips and falls, either into the pit or moving parts of the machinery, may be significantly reduced by due consideration of the width and positioning of the pit with respect to the machine and the work station of the operator. If, as a result of risk assessment it is decided that the pit still presents a significant risk, appropriate guarding for operators, consistent with carrying out their duties, should be considered.

To access a pit, the necessary rails, steps, etc. must be fitted commensurate with the risk assessment, safe system of work and staff training module. It may even constitute working within a confined space and thus be subject to much closer scrutiny.

The design and fitting of a suitable guard rail or cover plate would normally be quite simple, but the fact that it has to enable the operator to pass work through or over it with ease and without undue exertion, as well as being periodically removed to enable access, complicates the design and control.

For work activity not governed by the construction regulations, there are no prescriptive dimensions for guard rails, however all collective means of barrier protection devices should be of sufficient dimension to ensure a person cannot fall through or over them.

In the absence of any standards, HSE operational guidance suggests that guard rail heights in non-construction activities should be a minimum of 950 mm. Any protection below this height should be justified on the basis of a risk assessment. For buildings, factories, warehouses, offices, public buildings, retail premises etc. sufficient dimensions for guard rails or similar barriers must comply with the Building Regulations, requiring a minimum guard rail height of 1100 mm.

For plant, machinery, equipment etc. sufficient dimensions will be achieved by compliance with any relevant EN standard. For example, BS EN 14122-3:2013 (covering the safety of machinery access) specifies a top guard rail of 1100 mm; while the essential health and safety requirements of the Supply of Machinery (Safety) Regulations 1992 specify that such equipment is 'designed and constructed to avoid falls'.

BS EN ISO 10472 – 5 which governs the Safety requirements for industrial laundry machinery Part 5 Flatwork ironers, feeders and folders, ref 5.2.2.4 states that 'where floor pits are required in conjunction with feeding machines and there

is a risk of falling into the pit, the manufacturer shall describe in the instruction handbook the measures to be taken by the user to reduce this risk e.g. fixed rails. The ultimate responsibility is however with the user to follow expert advice, undertake a risk assessment, install necessary guard rails and following the equipment installation, commissioning and training of staff, ensure that the equipment operation is safe in all respects.

A vast array of applications is available on the internet by searching 'guard rails'.

**A guard rail must not be used as a climbing frame to reach above. Risk assessment, method statement, training and signage are key to safe operation.**

*Richard Newton, July 2015*

