

Amendment1 (AMD1 2008) to the TSA Health, Safety and Environment Guidelines, Section D – Safety Precautions in Laundering - new clause D.36A

(Following the fatality at the King George Hospital (Goodmayes) Laundry)

In December 2005 a laundry operative was crushed in the extraction press of a CTW and subsequently died of his injuries. Although the HSE is still investigating the accident, it has released the information below. In view of this information TSA and SLEAT have prepared an amendment which you should paste into your copy of the TSA Health, Safety and Environment Guidelines and bring it to the attention of your staff.

“Essentially, the main issue in this case is about the guarding and interlock systems of the laundry system and not just the batch (tunnel) washer. The guarding and interlocking did not meet the ESRs (*Essential Safety Requirements*) in the Supply of Machinery Regulations even though CE marking had been applied.

The laundry system consisted of several separate components, manufactured by different suppliers, which had been assembled to form the laundry, i.e.: an automated loading system, 2 x tunnel washers, 2 x dewatering presses, 6 x tumble driers and numerous conveyor belts to transfer washing between each component. This whole set-up was then surrounded by fencing with trapped key interlocked gates. Unfortunately, the trapped key system did not isolate or stop the movement of all of the machinery and, worst of all, the trapped key system could be overridden by resetting the control panel, allowing operation of separate components by someone outside the fencing because of the lack of interlocking.

The problem was that the trapped key system only stopped the movement of the conveyor belts, the electronic logic system recognised that the conveyors had stopped and washing could not be transferred between components, so switched each component into a 'hold' mode until power was reconnected to the conveyors. This meant that the tunnel washers did not stop but changed to a rocking mode (swishing backwards and forwards); the dewatering presses continued their cycle until the point came to discharge the pressed 'cake' and then went into hold; and the tumble driers continued to operate as normal. Consequently, anyone inside the fencing still had access to the dangerous moving parts. Furthermore, because there was no hard wiring between the trapped key system and each component, i.e. it was reliant only on the electronic logic, the logic could be overridden and each separate component could be operated from its control panel.

The original suppliers of the equipment, Ducker Engineering, closed the company and sold the UK rights to Kannegiesser Ltd some time before the fatal accident. However, Kannegiesser has rectified the interlocking problems at the laundry in King George Hospital.

If Laundries have a similar situation in their plants, they need to check that isolation covers all parts of the equipment system; otherwise additional measures should be added. If in doubt, Laundries should contact their suppliers for advice and modification.

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Please cut and paste this amendment into your copy on page 4D

D36A Interlocking of the extraction press or hydro - extractor with shuttle and tumbler dryer systems

It is recommended that the "access gate" to safety fence or guards connecting the press or extractor discharge area with the shuttle conveyor and tumbler loading area be fitted with a multiple trapped key (exchange) interlock system that requires the control power of the press or extractor, shuttle loading system and tumbler dryers to be isolated before access can be gained to the fenced or guarded off area.

This action must ensure that this equipment remains "inoperative" whilst work is carried out inside the safety fence or guarding, and until such time as the work is complete, personnel have vacated the area and the gate closed.

Following closure of the gate and reinstatement of the multiple trapped key (exchange) interlock system, the equipment controls which have been isolated must be "reset" before recommencing operation.

There is a requirement on Processors to prepare and implement a written Safe System of Work for engineers/operators, which includes training and risk assessment, before allowing any work to be carried out in the fenced off area.

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