



Safety alert 06/2013

Worker fatally injured by a robot palletiser

Background

A machine operator was fatally injured after he was trapped by the arm of a robot palletiser at a fertiliser factory. The deceased inadvertently activated a light sensor, which caused the arm to move and trap him against the steel rollers of the pickup station.

An additional gate had been installed in the perimeter fence after the robot had been commissioned, but there was no form of guarding and there was a gap in the perimeter fence that allowed persons to squeeze through without activating any safety devices.

The deceased entered the fenced area when power to the robot was not isolated.

Contributing factors

Industrial robots have inherent dangers including unpredictable action patterns, high speed operations, ability to move in free space and ability to be reprogrammed or reconfigured to change their use and application.

- An effective safety system protects operators, maintenance staff and others who could be exposed to hazards associated with a robot's operation.
- Guarding that can be easily bypassed is ineffective as a control measure.

Action required

1. All safety devices including perimeter fencing, presence-sensing devices and interlocks must be installed and maintained in accordance with the manufacturer's specifications.
2. Any modifications to robot guarding must be completed by competent persons, following a risk assessment of the changes being considered.
3. Operators must be trained and supervised to ensure they operate robots in accordance with safety procedures.

Further information

- Manufacturer's specifications for the industrial robot
- WA Code of practice – [Safeguarding of machinery and plant](#)
- WA Guidance Note – [Isolation of plant](#)

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