

SAFE INTERVENTIONS - MACHINERY SAFETY

1 General information

We would like you to look at machines for which access into, or working inside, without adequate safeguards could result in serious personal injury if safe intervention procedures are not followed. The type of tasks you should consider are: setting; cleaning; clearing blockages; running repairs; adjustments on the run.

2 Hazard elimination and risk reduction

	Answer
Has the employer taken all reasonably practicable steps to eliminate/minimise the need for people to gain access into danger zones by:	
Minimising the chance of blockages (e.g. pre-sorting of feed materials, ensuring feed conveyors are evenly loaded, ensuring steady feed rates etc)?	Y N NA
Providing feed conveyors with reversing facility?	Y N NA
Ensuring machines and guards allow rodding of blockages from outside the guard enclosure?	Y N NA
Providing misfeed detection and warning systems?	Y N NA
Providing machinery that can be adjusted automatically (by motorised adjusters etc)?	Y N NA
Providing machinery that can be adjusted manually from outside the guard enclosure?	Y N NA
Ensuring dimensions in fixed guards for insertion of adjustment tools do not allow bodily access into the danger zone?	Y N NA
Providing viewing aids (e.g. internal lighting, clear viewing panels, CCTV, mirrors etc) that allow people to see critical parts of the process without the need to gain access?	Y N NA

3 Hardware

3.1 Machinery safeguarding, interlocks and emergency stop devices

The quality of safeguarding and any associated interlocking devices will vary depending on the potential harm if access is gained behind it. Points to consider: How large is the opening when the protection is removed? Severity of injury? Frequency and/or exposure time to the hazard? Possibility of avoiding the hazard?

	Answer
Are you satisfied with the method of safeguarding?	Y N NA
Are you satisfied with the standard of safeguarding?	Y N NA
Are you satisfied that interlocking is provided where required?	Y N NA
Are you satisfied with the standard of interlocking where provided	Y N NA
Are all items of machinery fitted with one or more emergency stop devices (ESDs) that have clearly identifiable, visible and quickly accessible controls?	Y N NA
Where several machines operate together, does each ESD stop the other machines where necessary?	Y N NA
Do the ESDs stop the dangerous movement or process as quickly as possible without creating additional hazards?	Y N NA
Where necessary do the ESDs trigger safeguard movements e.g. release of clamping pressure?	Y N NA
Does the operation of the ESD require physical resetting to start the machine?	Y N NA

3.2 Isolation and lock-off devices

Where access is required, has the employer provided robust isolation and lock-off devices that ensure that:	Answer
The drive to the dangerous part of the machine can be isolated from energy sources?	Y N NA
Any stored energy can be dissipated before access is allowed?	Y N NA
Actuators for energy isolation systems are suitably positioned, clearly labelled to identify the items of machinery they isolate and marked ON/OFF?	Y N NA
They are fitted with the means of locking in the off position where necessary?	Y N NA

4 Procedures

4.1 Safe systems of work

Where the need for access into danger zones cannot be eliminated, has the employer:	Answer
Identified the tasks that require access?;	Y N NA
Performed a suitable and sufficient risk assessment for each task?;	Y N NA
Taken account of the potential for human error (e.g. slips or lapses of memory, communication errors etc) as part of the risk assessment?;	Y N NA
Taken account of the potential for violation of rules by employees and the factors that influence the potential for rule violation (e.g. workload, time pressures, practicality of the rules)?;	Y N NA
Taken account of the need for safe access and egress?;	Y N NA
Taken account of the risk of slips, trips and falls from height?;	Y N NA
Taken account of the risks from manual handling associated with the task?;	Y N NA
Taken account of the relevant instructions in machine manufacturers' instruction manuals?;	Y N NA
Provided and maintained a suitable permit-to-work system where appropriate?;	Y N NA
Provided appropriate emergency shutdown procedures?;	Y N NA
Provided a safe system of work for each task?;	Y N NA

4.2 Energy isolation and lock-off

Are there robust energy and isolation lock-off procedures that:	Answer
Specify the correct isolators for the intervention task?;	Y N NA
Check that stored energy has been dissipated where appropriate?;	Y N NA
Ensure the isolator(s) are securely locked in the off position?;	Y N NA

Are there robust energy and isolation lock-off procedures that:	Answer
Include a final check to confirm that machinery has been isolated from all sources of energy?	Y N NA
Communicate the fact that people are working in the danger zone to everyone who needs to know e.g. anyone who might start the machine?	Y N NA
Personal padlocks are provided and, where appropriate, multiple lock hasps?	Y N NA
Spare keys for isolator locks are not accessible?	Y N NA

4.3 Routine maintenance and inspection of safety related parts

*Please consider preventive maintenance **and** inspection by both the operator and maintenance staff. e.g. In many industries two levels of safety checks are appropriate: Daily visual and fictional tests; and less frequent but more detailed inspections and checks carried out by a competent machine setter or maintenance staff.*

Has the employer provided effective procedures for routine maintenance, inspection/testing of and reporting defective:	Answer
Fixed and moveable guards and access doors, gates, panels and electro-sensitive protective devices?;	Y N
Interlocking devices?;	Y N
Emergency stop devices (ESDs)?;	Y N
Power isolation devices?	Y N

5 Management system

Managing and organising the safe systems of work (SSOW)

Is there evidence to show the following:	Answer
Managers and supervisors understand and accept their responsibilities for the operation of the SSOW?;	Y N
Managers and supervisors are held accountable for the correct operation of the SSOW?;	Y N
That, where appropriate, employees or their representatives were adequately involved and consulted during the preparation of any safe systems of work they are required to follow?;	Y N
Rules relating to the SSOW are effectively communicated and understood?;	Y N
Employees required to apply and follow the SSOW have been properly trained in the SSOW?;	Y N
The SSOW are properly followed in practice?;	Y N
Managers and/or supervisors monitor compliance with the SSOW?;	Y N
Managers and/or supervisors take appropriate remedial action if SSOW are not followed properly?;	Y N
Managers review the operation of the SSOW at appropriate intervals?	Y N

6 Other comments