

# **PUWER Assessment Report**

Provision and Use of Work Equipment Regulations 1998

Insert client logo if available

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# **Report Details**

#### Client

Name	
Project (if applicable)	
Site (if applicable)	
Contact Name	
Contact Email	
Contact Phone	

#### Author

Lead Assessor	
Assistant Assessor	

## Scope

Machine	
Manufacturer	
Equipment and/or	
Assembly Assessed	
including serial numbers	
Assessment Location	
Assessment Date	
	This reference number is obtained from PUWER Label register
Assessment Reference No.	
	\\Label Printer\PUWER Labels\Master Numbering of Labels PMC Ref.xls

# Control

Number	Description of Change	Date	Author	Reviewer
0	First Template Issue	05/12/2018	MD	-
1	Initial Report			



# **Photo Reference of the Machine**

Insert an overview photo of the machine/installation as a reference

# **Regulatory Briefing**

The Provision and Use of Work Equipment Regulations 1998, often abbreviated to PUWER, place duties on people and companies who own, operate or have control over work equipment. PUWER also places responsibilities on businesses and organisations whose employees use work equipment, whether owned by them or not.

PUWER requires that equipment provided for use at work is:

- suitable for the intended use
- safe for use, maintained in a safe condition and inspected to ensure it is correctly installed and does not subsequently deteriorate
- used only by people who have received adequate information, instruction and training
- accompanied by suitable health and safety measures, such as protective devices and controls. These will normally include emergency stop devices, adequate means of isolation from sources of energy, clearly visible markings and warning devices
- used in accordance with specific requirements, for mobile work equipment and power presses

Some work equipment is subject to other health and safety legislation in addition to PUWER. For example, lifting equipment must also meet the requirements of LOLER, pressure equipment must meet the Pressure Systems Safety Regulations.

#### Selection and conformity

Work equipment must be suitable for the purpose for which it is used or provided, and used only for operations for which it is suitable. In selecting work equipment, employers must take account of:

- the working conditions and risk to health and safety from the premises it will be used in
- who will use the equipment?
- the work equipment itself

New work equipment should conform to any essential requirements for safety applicable to it through European product supply law.

#### Inspection of work equipment

The purpose of an inspection is to identify whether work equipment can be operated, adjusted and maintained safely – with any deterioration detected and remedied before it results in a health and safety risk. Not all work equipment needs formal inspection to ensure safety and, in many cases, a quick visual check before use will be sufficient. However, inspection is necessary for any equipment where significant risks to health and safety may arise from incorrect installation, reinstallation, deterioration or any other circumstances. The need for inspection and inspection frequencies should be determined through risk assessment.

#### Maintenance of work equipment

PUWER requires that: all work equipment be maintained in an efficient state, in efficient order and in good repair; where any machinery has a maintenance log, the log is kept up to date; and that maintenance operations on work equipment can be carried out safely.

#### Training and competence

All people using equipment at work must be adequately trained to ensure health and safety in its use, supervision or management. Some work activities require detailed formal training but, for most everyday activities involving work equipment, adequate training can be delivered in-house using the manufacturer's instructions and the background knowledge / skills of more experienced workers and managers.

People should be competent for the work they undertake. Training – along with knowledge, experience and skill – helps develop such competence. However, competence may (in some cases) necessarily include medical fitness and physical / mental aptitude for the activity.

#### Mobile work equipment

Mobile work equipment - including self-propelled, remotecontrolled work equipment - is subject to specific requirements in addition to the requirements for normal work equipment, which cover:

- the suitability of equipment used for carrying people
- the minimising of rollover risk
- the provision of equipment to restrain or protect people (in the event of rollover or overturn)
- the control of the equipment, including operator vision and lighting (where required for safety)

# Manufacture and supply of new work equipment

All new work equipment must by design, construction and supply comply with one or more legal requirements when first placed on the market or put into service, to ensure that they can be used safely and without harm.

For most new products these requirements originate in EU Directives which set out common minimum European requirements for health and safety, including CE marking.

The array of European Directives requirements is vast but primarily, concerned with the design, manufacture and supply of new products, particularly machinery, including:

- designing and building for safety
- assessing product conformity
- demonstrating product compliance
- providing users with relevant information

#### Second-hand (re-supplied) products

Anyone supplying second-hand equipment for use at work must ensure, so far as reasonably practicable, that it is safe and without risks to health. This applies at all times when the equipment is being set, used, cleaned or maintained by a person at work. Adequate information should also be provided concerning the intended use of the equipment.

Where the second-hand equipment is in scope of one of the European product supply Directives and has not previously been put into service in the European Economic Area (EEA), or placed on the market of the EEA, the person importing it into the EEA must meet the conformity assessment requirements of the relevant European Directives, including CE marking.

The term "sold as seen" or similar cannot be used to avoid these legal responsibilities.

## **Refurbished and modified machinery**

Some machinery provided for use at work is refurbished or modified, sometimes without change of ownership, but also often prior to re-supply as second-hand equipment.

The extent of the changes made to the original machinery, together with its provenance, can result in new legal obligations on the owner, user or person undertaking such work.

In some cases where machinery has been so transformed or substantially rebuilt it may have to be considered as new machinery and so subject to the conformity assessment and CE marking requirements of the Machinery Directive even if originally compliant and CE marked when first placed on the market.

However, refurbishment, even if very substantial, where parts are replaced with new similar versions (like for like etc) do not require re-CE marking.



# Hazard / Regulatory Checklist

This section gives a quick summary of compliance against the Provision and Use of Work Equipment Regulations 1998. This checklist forms the hazard identification stage of this reports risk assessment.



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BE AWARE! Whilst every effort is made to ensure a comprehensive check of the machinery / assembly there are items that cannot be checked due to incomplete construction and/or commissioning works. It is the recipeint's responsibility to ensure that these checks are completed prior operational use.

Regulation 4 deals with the safety of work equipment from three aspects; the initial integrity, the place where it will be used and the purpose for which it will be used.

Regulation 4 - Suitability		Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
1.	Is the equipment suitable for the task?					
2.	Is the equipment used for the correct purpose?					
3.	What power sources does the machine use? (Electricity, compressed air etc.)					
4.	Has a risk assessment been carried to assess ergonomic, substances and environment hazards? Refer to BS EN ISO 12100:2010.					



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Regulation 5 builds on the general duty in the HSW Act section 6 which requires work equipment to be maintained so that it is safe.

Regu	lation 5 - Maintenance	Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
5.	Is the Equipment properly maintained					
6.	During maintenance, is the equipment turned off and isolated?					
7.	Is the maintenance logbook up-to-date (if kept)?					
8.	Is the equipment subject to statutory inspection (e.g. COSHH, LOLER, Pressure Systems Safety Regulations, etc)					Written Scheme of Examination
9.	Have maintenance staff received adequate information, instruction & training?					

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**Regulation 6** covers the extent and nature of the inspection. It deals with; the different situations where inspections of work equipment is required, the purpose of the inspection, who should carry out the inspection, keeping records of the inspections.

Regul	ation 6 - Inspection	Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
10.	Is equipment inspected after installation and before being used for the first time?					
11.	Is equipment inspected after it is assembled at a new site or location?					



Regul	ation 6 - Inspection	Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
12.	Is work equipment inspected at suitable intervals when it is exposed to conditions causing deterioration, which is liable to result in dangerous situations (e.g. high vibrations)?					
13.	Is the equipment inspected at regular intervals or frequency?					
14.	Is the equipment inspected for safety, each time an exceptional circumstance arises e.g. a major fault occurs?					
15.	If equipment leaves the undertaking, or if obtained from another person, it is accompanied by physical evidence that the last inspection has been carried out?					

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**Regulation 7** this regulation deals with restricting the use of some equipment to people who are trained in the use of that equipment and in the specific risks involved. The employer also has to decide who can repair, modify, maintain or service it and provide the appropriate training for those people.

Regulation 7 - Specific Risks		Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
16.	Is the use of this equipment restricted to specific persons (e.g. abrasive wheels, circular saws, etc.)?					
17.	Is the repair, maintenance, modifications and servicing restricted to specific persons? (For example, key or code access)					
18.	Have those persons who use, repair, maintain, modify or service the equipment been adequately trained? If so, state training received.					



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**Regulation 8 & 9** there is a general duty in the HSW Act to provide employees and others, such as temporary workers supplied through an employment agency, with the information and instructions necessary to protect their health and safety. Regulation 8 supplements that general duty. Regulation 9 focuses on providing training to people who use the work equipment, providing training to employees who manage or supervise the use of work equipment, and the need for separate driver training.

Regu	ation 8/9 - Information, Instruction and Training	Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
19.	Are users suitably trained?					Only trained and authorised personnel to operate equipment
20.	Are training records kept?					Only trained maintenance technicians and service engineers carry out modifications or repairs.
21.	Have all users of work equipment received adequate information, instruction and training, including: Methods; Risks; Precautions (Refer to BE EN ISO 14121-1:2007).					Client to define requirements
22.	At what stage is training given, induction, first use or later?					
23.	Has special emphasis been given to young persons under 18 years of age?					
24.	Is the use of the machine limited to trained personnel only? (For example, key or code access)					
25.	Has an instruction manual been supplied with the equipment? Does it include written instructions for dealing with normal and abnormal operating conditions?					



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**Regulation 10** everyone involved in the chain of supply of work equipment has legal obligations which are designed to ensure that new work equipment is safe. For example, section 6 of the HSW Act places general duties on designers, manufacturers, importers and suppliers to ensure this is so far as reasonably practicable. Regulation 10 supplements the requirement of section 6 by placing a duty on the user of the work equipment.

Regul (this re premis Decen	ation 10 - Conformity with Community Requirements egulation applies to items of work equipment provided for use in the ses or undertaking of the employer for the first time after 31 <sup>st</sup> aber 1992)	Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
26.	Does the equipment comply with relevant community directives (e.g. does it display a CE mark, is there an EC Declaration of Conformity Certificate)?					
27.	If so and where an essential requirement has applied to the design and construction of an item, have the requirements of regulations 11-19 and 22-29 been applied?					

**Regulation 11** require employers to take effective measures to prevent access to dangerous parts of machinery or stop their movement before any part of a person enters a danger zone. It specifies the measures which you should take to prevent access to the dangerous parts of the machinery to achieve compliance. It sets out various requirements for guards and protection devices and appliances. There is national, european and international standards that act as guidance on measures to prevent access to dangerous parts BS EN ISO 13854:2019, BS EN 14120:2015, BS EN ISO 13857:2008, BS EN 14119:2013.

Regul	ation 11 - Dangerous Parts of Machinery	Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
28.	Does guarding prevent access to all dangerous parts of the equipment during operation? Suitable for purpose? Situated at a sufficient distance from the danger zone? Refer to BS EN ISO 13857:2008 (Safety Distances)					
29.	Does guarding allow an adequate view of the operation?					
30.	Are guards maintained in an efficient state?					



Regul	ation 11 - Dangerous Parts of Machinery	Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
31.	Can guards be easily bypassed or disabled?					
32.	Are guards made of robust material or adequate strength? Refer to BS EN 14120:2015 (Guarding)					

**Regulation 12** covers measures which employers have to take to prevent, control or minimise the effects of specified hazards during the use of work equipment.

Regulation 12 - Protection for Specific Hazards		Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
33.	Are materials prevented from being ejected from the machine?					
34.	Does the machine minimise the risk of over-heating, fire or explosion?					
35.	Is the machine earthed?					Machines are usually earthed through the main supply cable. During the inspection look for earth bonding (green & yellow cable) between metal parts that could become live with electricity
36.	Are noise levels produced over 80 Decibels?					
37.	Does the machine cause hand arm or whole-body vibration?					
38.	Are all lasers guarded and signed?					

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Regul	ation 12 - Protection for Specific Hazards	Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
39.	Are any sources of ionising radiation safeguarded?					
40.	Are hot or cold surfaces protected from contact?					
41.	Does the design of the machine allow comfortable operation?					

**Regulation 13** many items of equipment have exposed surfaces, or contain or use hot or very cold substances. This regulation deals with the risks from these and looks at the measures you can take to reduce the risk of injury to people coming into contact with hot or very cold work equipment, parts of work equipment or articles or substances in the work equipment.

Regu	ation 13 - High or Very Low Temperatures	Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
42.	Where appropriate, are all parts of work equipment, articles or substances in the equipment protected to prevent burns by contact (engineering measures should always be applied, although circumstances may arise where the only form of protection may be PPE, etc.)?					

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**Regulation 14** addresses the risks to health and safety created by the starting or uncontrolled operation of work equipment. It covers the need for one or more controls for starting work equipment. And why, apart from automatic equipment, equipment should never start or change its operating conditions unintentionally.

Regul	ation 14 - Starting Controls	Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
43.	Is the equipment fitted with start, stop or operating condition controls which require a deliberate action to operate?					
44.	Can starting take place by use of a protective device (e.g. an interlock)?					
45.	Are the controls protected against inadvertent operation (e.g. starter shrouded)?					

**Regulation 15** deals with controls for ensuring that work equipment being operated under normal conditions can be stopped without risk to health and safety. Stopping work equipment may involve a number of coordinated operations that have to be brought under control to avoid risk to health and safety.

Regulation 15 - Stop Controls		Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
46.	Does the stop control mechanism bring the work equipment					
	to a safe condition in a safe manner (less than 10 seconds					
	with woodworking machinery)?					
47	Are all sources of energy switched off after stopping the					
47.	equipment (compressed air/ hydraulic pressure)?					
	Does the stop control equipment operate in priority to					
48.	controls, which start or change operating conditions?					



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**Regulation 16** deals with the number of emergency stop controls, the accessibility of those controls, interaction with other controls required, circumstances where emergency stop controls are not necessary, the priority given to emergency stop controls. The main purpose of an emergency stop control is that it is simple to locate and operate.

Regulation 16 - Emergency Stop Controls	Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
Is the equipment fitted with an emergency stop control, 49. which operates in priority to any other control mechanism? Refer to EN13850:2015 and BS EN 60204-1:2018					Emergency stop should not be considered as a substitute for safe guarding According to EN13850:2015 an Emergency stop device/button shall be coloured red. When a background exists behind the actuator it shall be coloured yellow. It should only be used in emergency, never as a stop button An emergency stop device shall be located: — at each operator control station, except where the risk assessment indicates that this is not necessary; — at other locations, as determined by the risk assessment, e.g.: — at entrance and exit locations; — at locations where intervention to the machinery is needed, e.g. operations with a hold-to-run control function; — at all places where a man / machine interaction is expected by design (loading / unloading zone for example). Emergency stop devices shall be positioned so that they are directly accessible and capable of non-hazardous actuation by the operator and others who could need to actuate them.



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**Regulation 17** this regulation deals with the controls for work equipment; ensuring that the purpose of the control is clearly identifiable, the location of the controls so that neither the operator nor any other person near the equipment is at risk, the use in particular circumstances of warnings to signal the use of equipment controls, giving advanced warning to people exposed to risk, giving people exposed to risk the means of avoiding it.

Regulation 17 - Controls		Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
50.	Are controls clearly visible and identifiable?					
51.	Do the controls function correctly?					
52.	Do stop controls over-ride the operating controls of the machine?					
53.	Are the controls designed to require a deliberate restart after changes in operating conditions?					
54.	Are start controls shrouded?					
55.	Are there audible, visible or warning devices which are activated before the equipment starts?					

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**Regulation 18** deals with taking realistic and practical allowances into account when choosing or specifying control systems. Not to increase risk when the control system is operating, either directly or indirectly by impeding the operation of other safety measures. Not increasing risk if a control system fail or loses its power supply. There are national, european and international standards BS EN 60204-1, BS EN ISO 13849-1, BS EN 62061 which provide guidance on design of control systems so as to achieve high levels of performance related to safety. Though they are aimed at new machinery, they may be used as guidance for existing work equipment.



Regulation 18 - Control Systems		Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
56.	Do control systems allow for failures, faults and constraints to be expected in the planned circumstance of use, with no increased risk to health and safety?					Ask what the PL rating and category of the functional safety control system is, and if these has been validated/verified as per the EN13849 standard. If this is unknown or no records of validation, recommend that the safety control system of the machine is reviewed.
57.	Does a failure of any part of the control system or its power supply lead to a 'fail-safe' condition, which will not impede the operation of the 'stop' or 'emergency stop' controls?					Ask what the PL rating and category of the functional safety control system is, and if these has been validated/verified as per the EN13849 standard. If this is unknown or no records of validation, recommend that the safety control system of the machine is reviewed.

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**Regulation 19** the aim for this regulation is to allow equipment to be made safe under particular circumstances such as when maintenance is to be carried out, when an unsafe condition develops, or where a temporarily adverse environment would render the equipment unsafe, for example electrical equipment in wet conditions or in flammable or explosive atmosphere.

Regu	ation 19 - Isolation	Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
58.	Are there suitable means to isolate the equipment from all					
	sources of energy (e.g. multiple lockable hasps, removal of					
	plug, close and lock off valves, drain/ vent outlets, etc.)?					
59.	Are the means of isolation clearly identifiable?					
60.	Are they accessible?					



Regul	ation 19 - Isolation	Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
	Are there appropriate measures to ensure that reconnection					Is there a lock out tag out procedure and is it adhered to?
61.	does not expose any person to a risk of injury (e.g.					
	reconnection initiating movement, adequate guards)					



**Regulation 20** many types of equipment could topple over, overturn or collapse unless they are securely fixed. This regulation explains how equipment should be stabilised, clamped, tied or fastened to make it safe.

Regul	ation 20 - Stability	Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
	Is the equipment stabilised by clamping or otherwise where					
62.	necessary to prevent risk of injury (e.g. machines bolted to					
	floor, scaffolds tied to building, outriggers on mobile cranes,					
	etc.)					



**Regulation 21** any place where a person uses work equipment should be suitably and sufficiently lit. If the ambient lighting provided in the workplace is suitable and sufficient for the tasks involved in the use of the equipment, special lighting won't be needed. This regulation looks at areas where additional lighting may be required.

Regu	lation 21 - Lighting	Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
	Are the places where the work equipment is to be used					
63.	suitably and sufficiently lit (local lighting may be required on					
	certain machines e.g. lathes, sewing machines)?					



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**Regulation 22** requires that equipment is constructed or adapted in a way that takes account of the risks associated with carrying out maintenance work, such as routine and planned preventative maintenance.

Regul	Regulation 22 - Maintenance Operations			Not Applicable	Not Seen/Not been shown	Assessors Comment
64.	Is maintenance carried out with the machine stopped and isolated? If yes, skip to question 67.					
65.	If no, and it is reasonably practicable to do so, are maintenance operations carried out without exposing persons to risk?					
66.	If not, are there measures in place to reduce the risk of injury (e.g. temporary guards, limited movement controls, PPE, etc.)?					



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**Regulation 23** where equipment is dangerous or has dangerous parts that project, the equipment should be marked so that employees are not put at risk.

Regulation 23 - Markings			No	Not Applicable	Not Seen/Not been shown	Assessors Comment
67.	Is the equipment appropriately marked for health and safety purposes e.g. emergency stop controls, safe working load, colour code of gas cylinders					
68.	Do all markings comply with BS EN ISO 7010 and ISO 3864 or Safety Signs and Signals Regulations 1998?					

**Regulation 24** makes it clear that warnings are not appropriate unless they are clearly signalling danger. The regulation focuses on ensuring that warnings are clear, easy to understand, unmistakeable.

Regi	lation 24 - Warnings	Yes	No	Not Applicable	Not Seen/Not been shown	Assessors Comment
69.	Are all warnings and warning devices unambiguous, easily understood, easily perceived (e.g. signs complying with the Safety Signs and Signals Regulations 1998, audible visible warnings on fork lift trucks, etc.)?					Signs for warning of a particular hazard should consist of a black band in the shape of an equilateral triangle. The background within the band should be yellow with the pictogram indicating the type of hazard in black positioned centrally on the sign



# **Risk Assessment**

#### **Persons Effected**

Porsons ownered (tick box)	Employees		Other workers	Public/visitors	Young persons	
Persons exposed ( <i>lick box</i> )	New/expectant mot	hers		Vulnerable persons	Others	

#### **Assessment Matrix**

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This is a Qualitative Assessment. The following matrix provides defined categories for the assessment team to assign their proffesional subjective opinions.

BE AWARE! There is not a 'standard assessment matrix'. Every company operating in the EU / UK must adopt matrixes appropriate to their operational needs, lexicon and tollerance for risk. The recipient should ensure that the matrix below represents that of their organisation / unit.

;Y	5	5	10	15	20	25		Likelihood		Severity		
	4	4	8	12	16	20		Rating 1 = Very u	nlikely	Rating 1 = No injury, il	Iness or damage	e
eri	3	3	6	9	12	15	Guidance	Rating 2 = Unlike	ly	Rating 2 = Minor injur	y, illness or dam	nage
ě	2	2	4	6	8	10	Guidance	Rating 3 = Likely		Rating 3 = 7-day injury	, illness or >£1k	damage
S	1	1	2	3	4	5		Rating 4 = Very lil	kelv	Rating 4 = Specified in	, jury, illness >£1	0k damage
		1	2	3	4	5		Rating 5 = Almost	t certain	Rating 5 = Fatality, disa	abling injury, et a	al.>£100k damage
	Likelihood Acceptable							Acceptable		Further Review		Unacceptable



## **Assessment Summary**

				Fa	ctors of ha	rm	
Hazard ID (from Checklist)	Regulation	Brief Hazard or non-conformance description	Photo(s)	Likelihood <i>(1-5)</i>	Severity <i>(1-5)</i>	Risk Rating (Likelihood x Severity)	Suggested Action
	PUWER Reg.4						
	PUWER Reg. 5 HSWA 1974 sec.6						
	Regulation 6						
	PUWER Reg. 7/8/9 HSWA 1974 Sec 2(2) (c)						
	PUWER Reg 10 Supply of Machinery Reg 2008						
	PUWER Reg.11 12100:2010 13857:2008 14120:2015						
	PUWER Reg.16 EN13850:2015 EN 60204						
	PUWER Reg.18/19 EN 13849						



Overall Su	mmary			



# **Action Register**

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This section transposes actions from the risk assessment into an easy to read / printer friendly register of actions. With a section for the client recipient to keep track of completed actions.

Hazard	Recommended Action	Risk	Action Taken	When & by		
ID	Neconiniended Action	Rating		v	/hom	
				Name		
				Date		
				Name		
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#### **CLIENT CLOSE OUT**

Actions that have been taken are deemed acceptable and has lowered the risks as far as reasonably practicable.

Print Name:

Signature

Date:



#### Need help or advice?

Contact pm Connections on 01925 606 420.