

Owner / User Guidance

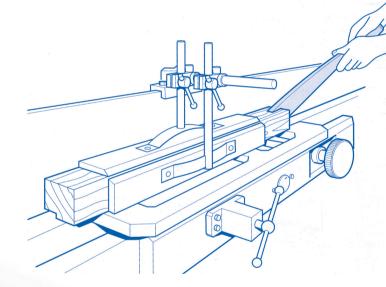
PUWER'98

Risk Based Compliance

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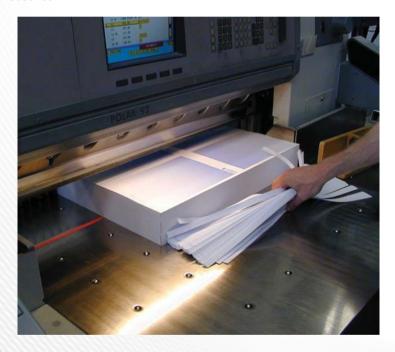
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FOREWORD

The Management of Health and Safety at Work Regulations 1992 (MHSWR) require UK employers to carry out work-place risk assessments, to document the findings and to implement such risk control measures as may be identified. These regulations are part of the trend away from prescriptive legislation and towards a risk-based approach to the management of health and safety.

The Provision and Use of Work Equipment Regulations 1992 (PUWER), came into force alongside MHSWR; PUWER was revoked and replaced by PUWER '98. The regulations specify the requirements for identifying and controlling risks associated with plant and equipment in the workplace.

In recognition of the needs obligations introduced to the market by PUWER '98, SAFed has developed an approach to assessing workplace compliance in these circumstances. The approach takes account of modern risk assessment and "goal setting" techniques and aims to provide "reasonably practicable" recommendations for risk minimisation measures.



SAFed believes this document, that draws on the collective expertise of its members, both in relation to the assessment of risks and the appropriateness of risk improvement measures, will enable a consistent approach to PUWER '98 to be taken.

As such it should be of added value to employers committed to maintaining high standards of health and safety protection.

1. INTRODUCTION

1.1. LEGISLATIVE BACKGROUND

In 1992 The Management of Health and Safety at Work Regulations (MHSWR) introduced a mandatory requirement for all employers to carry out workplace risk assessments and implement improvements identified as a result. For all workplaces where five or more people are employed, documentary evidence of the assessment, its findings and remedial actions required must be formally recorded.

The aim is to ensure that all employees are protected by an acceptable health and safety regime.

At the same time The Provision and Use of Work Equipment Regulations 1992 (PUWER) also entered into force; their effect was to reinforce MHSWR by specifying requirements related to the risks associated with the use and operation of plant and equipment.

Serious incidents occurring since 1992 have caused the Health and Safety Executive (HSE) to issue numerous enforcement notices under PUWER. It is suspected that this is only 'the tip of the iceberg' in terms of the numbers of locations where equipment and processes are unsafe for use. Compliance with MHSWR and PUWER is not yet widespread within UK plc.

Six years after its introduction, PUWER was revoked and replaced by PUWER '98 which incorporates a number of amendments and extends the scope of requirements previously covered. The overall objective of ensuring that work equipment is safe to use remains.





1.2. PUWER '98

PUWER '98 provides a vehicle for a comprehensive review of the risks associated with work equipment. It embraces:

- suitability of plant
- appropriateness of training
- adequacy of maintenance
- requirements for inspection, operation and use of equipment

The obligations, placed on industry by PUWER '98, have highlighted the fact that many employers using hazardous plant and equipment may require a competent external resource to supplement their own internal expertise and achieve compliance. The independent inspection industry, as represented by the members of SAFed, is well placed to provide such a service.



2. THE SAFed APPROACH

2.1. OBJECTIVE

The SAFed objective is to provide a consistent service, fulfilling an industry need by recognising:

- major drivers for improving safety are increasingly based on the adoption of discerning
- risk-based philosophies
- persons carrying out assessments must have appropriate competence

2.2.SCOPE

The service is based on an assessment of the risks associated with the use and operation of workplace plant and equipment. The service area as agreed between the client and the service provider: It will:

- consider the hardware aspects of all nominated items and their management systems, identifying and ranking significant hazards
- report on the control measure implications necessary for compliance with PUWER '98

Items identified are assessed for all risk scenarios associated with:

- functional suitability
- duty and condition
- the environment within which the item(s) operate
- the management control systems in place

2.3. GENERIC RISK ASSESSMENT

In order to promote consistency in risk assessment, the SAFed protocol provides a structured approach to systematic analysis and evaluation of risk. It ensures that any SAFed member competent person will come to a similar conclusion when assessing the risks associated with a particular set of circumstances. This is achieved by identifying all the factors to be taken into account and making qualitative judgements on the significance of each against all risks.

Regulation 4-10 Management Issues

Assessment of suitability of equipment, maintenance, inspection, instruction, training and conformity with EC Product Directives

Regulation 11-24 Physical Aspects

Controls, guarding and protection against specific hazards etc

Regulation 25-30 Mobile Plant

2.4. METHODOLOGY

2.4.1. Phase 0 Preparation prior to attendance at site

- From knowledge of the processes and the types of equipment involved, related legislation, standards, industry guides etc will be consulted and appropriate requirements will be identified
- Account will be taken of previously conducted risk assessments and whether or not any resultant recommendations have been implemented

2.4.2. Phase I On-site pre-assessment

Conducted jointly with the site contact (health and safety duty holder)

- The scope of the service will be defined and the plant and equipment to be assessed will be identified
- Management systems will be reviewed, including:
- Health and Safety Policy, responsibilities practices etc
- Operational procedures, referenced equipment manuals
- Training requirements and records
- Accident history ie relevant incidents associated with the system being assessed will be taken into
 account

2.4.3. Phase II On-site assessment

A physical survey will be conducted to determine conformity to 'best practice' parameters

2.4.4. Phase III Report of assessment

- A report describing the system under investigation, the hazards it contains and an assessment of the existing control measures will be produced
- Any deficiencies will be highlighted, their risks ranked and recommendations for improvement measures prioritised

A form of report is illustrated in Appendix I. It is designed to address the issues, assist in familiarising the owner with the requirements of PUWER '98 and provide a summary of the assessment and recommendations.

APPENDIX I

Provision and Use of Work Equipment Regulations 1998

Assessment Profile

Policy/contract No: xxx

Site:xx Report number: xx/xx/xx

Owner/user: XYZ Company Ltd

Address: As appropriate

Date of Assessment: Date

Assessment engineer: Name of assessor

MANAGEMENT OF HEALTH AND SAFETY

Company organisation, Profile and Responsibility

Details of personnel in company involved with risk assessment or safety

eg: A N Other Dedicated Group Safety Officer

John Doe Local Safety Rep - Works Engineer

COMPANY WORK EQUIPMENT

Description of process and overview of work equipment

Risk assessment history

Overall description of work equipment

Details of any previous risk assessment on the equipment or similar equipment

eg: Hardening and tempering furnace line. Previous risk assessment on similar equipment at another location. Risk assessment by in-house staff dated xx/xx/xxxx

SCOPE OF ASSESSMENT (Work equipment inventory)

Process

Details of process area with any boundaries and limitations.

If a schematic diagram is of assistance, it should be referenced here.

e.g: The process area assessed was the hardening and tempering line including feed conveyors, furnaces, oil baths and washes. The area bounded on one side by the factory wall and on the other sides by walkways and other factory equipment

Risk criteria Low-High

Probability of risk 1-3

Severity 1-3

Risk level = Probability x Severity

Equipment

List of equipment with manufacturers and serial numbers as appropriate

eg: Conveyor - Make - AN Other Ltd, No xxx Furnace 1 - Make - AN Other Ltd, No xxx Oil bath - Make - AN Other Ltd, No xxx Washer 1 - Make - AN Other Ltd, No xxx Washer 2 - Make - AN Other Ltd, No xxx Furnace 2 - Make - AN Other Ltd, No xxx

SUMMARY OF ASSESSMENT

A general summary of the findings

eg:The assessment identified only one high risk situation that can be addressed by periodic inspection and a permit to work system. The remaining risks identified can be addressed by corrective actions and the potential for recurring risks can be reduced by instituting the periodic inspection programme detailed under Recommendations.

ASSESSMENT REVIEW

A statement regarding review

eg: This assessment should be reviewed in the event of any changes to work equipment or procedures which may introduce new hazards. Otherwise an annual review should be carried out by a competent person and this review should be logged.

Provision and Use of Work Equipment Regulations 1998

Assessment and Inspection of Machinery Report

Policy/contract No: xxx

Site:xx Schedule:xxx Report number: xx/xx/xx

Owner/user: XYZ Company Ltd

Address: As appropriate

Machine description: eg: heat treatment - Hardening & Tempering Line

Detail of normal use and area of operation

Normal operating parameters: eg: within factory; 24 hour operation

Assessment Criteria	Regulation	Assessment Results	Action Required
1 Design and Installation		Satisfactory/unsatisfactory with details as necessary	
a suitability of equipment	4	Satisfactory - ascertained from previous experience	No
b conformity with EC regulations	10	Satisfactory - previously installed in Europe	No
c dangerous parts of machinery	11	Unsatisfactory - oil pump shaft, hole in floor	Yes
d protection - specific hazards	12	Oil quench tank has fire potential.	
		Furnaces have a gas explosion potential	Yes
e high/low temperatures	13	Unsatisfactory - hot surfaces - exhaust stack and furnace sides	Yes
fcontrols	14/17	Unsatisfactory - poor sight from main control point	Yes
g stop/emergency stop controls	15/16	Unsatisfactory - emergency stop at entry feed not marked	Yes
h isolation of energy	19	Electrical in order - gas valve not marked	Yes
i stability	20	Unsatisfactory -loading hopper chute required	Yes
2 Management systems			
a maintenance	5	Satisfactory in-house maintenance - see system	No
b inspection	6	Periodic inspection required - see report	Yes
c specific risks	7	Furnace entry permit system required	Yes
d information/instructions	8	Information not provided by suppliers	Yes
e training	9	Training manual not complete	Yes
f marking	23	Differentiate marking natural gas and nitrogen lines	Yes
g warnings	24	Fit warning signs on all furnace entry doors	Yes
3 Operating considerations			
a control systems	15	Electrical control systems require periodic testing	
		to ensure the fail to safety	Yes
b lighting	21	Unsatisfactory - on factory wall side at night	Yes
c maintenance operations	22	Correct permit to work system required for electrical,	
		gas and furnace areas	Yes

4 Mobile considerations			
4 IVIODITE CONSTUENATIONS			
a passenger safety	25	Not applicable to this example	-
b stability	26	Not applicable to this example	-
c passenger restraint	27	Not applicable to this example	-
d self-propelled equipment	28	Not applicable to this example	-
e remote control	29	Not applicable to this example	-
f drive shafting	30	Not applicable to this example	-

Certification: we certify that the above machine/equipment on the date of assessment has been assessed in accordance with the requirements of the Provision and Use of Work Equipment Regulations 1998 in relation to normal operating parameters associated with the use of the machine/equipment and the above is a true report of the result

Assessment engineer:	Name of Assessor	Date of assessment:	date
Signature			

Provision and Use of Work Equipment Regulations 1998

Risk Assessment Report

Policy/contract No: xxx

Site: xx Schedule: xxx Report number: xx/xx/xx

Owner/user: XYZ Company Ltd

Address: As appropriate

				Risk	
Machine/Equipment	Observation	Prob	Sev	Level	Recommended Actions
List of items on which Observations are noted <i>eg:</i>	The content of observation eg:	eg:	eg:	eg:	Details of the action advised eg:
Furnaces		2	2	0	
	Gas explosion	3	3	9	Check photo cell units at regular intervals
Furnace stacks, sides	potential	3	2	6	Fit guards around stacks and fit warnings notices
Furnaces	Hot surfaces	2	3	6	Arrange permit system.
	Entry permits				Arrange inspection of chain
Isolation valves, controls & emergency stops					
	Not marked	2	2	4	Fit labels on valves and controls/isolation points/emergency stops. Provide lock-off facility
Oil pump area	as indicated	2	2	4	Fill in hole
Electrical installation	Hole in floor	1	3	3	Arrange periodic inspection
Oil pump shaft	Electricity at Work Regulations	_			
	Exposed rotating	2	1	2	Fit guard
Loading point	shaft	2	1	2	Fit catch chute to feed point
Training	No hopper sides	1	1	1	Complete training manual
Gas lines	No manual	1	1	1	Mark gas lines to show differential
Lighting	No differential	1	1	1	Complete area lighting
	marking Dark areas				

Recommended Periodicity of Inspection

Regulations 8

The following ponts require periodic inspection as a result of the above assessment

Item

List of items for which periodic inspection is advised eg:

Photo cell burner system

Nitrogen system

Gas control gauges Electrical system

Temper furnace door chain

Recommended Periodicity of Inspection

Details of advised inspection required eg:

Annual thorough examination with monthly visual inspection
As per Written Scheme under Pressure systems Regulations
Annual thorough examination. Daily visual inspection

Annual test of safety devices with monthly visual inspection Annual thorough examination

The above sections should be implemented in accordance with the severity ranking indicated above in order to ensure deficiencies identified under the Provision and Use of Work Equipment Regulations 1998 are corrected

Certification: we certify that the above machine/equipment on the date of assessment has been assessed in accordance with the requirements of the Provision and Use of Work Equipment Regulations 1998 in relation to normal operating parameters associated with the use of the machine/equipment and the above is a true report of the result

Assessment engineer:	Name of Assessor	Date of assessment: date
Signature		

APPENDIX II

Risk Ranking

For the purpose of this document 'risk' is defined as:

RISK = LIKELIHOOD of an EVENT x CONSEQUENCE

Risk must be quantified and ranked in order that the principle of 'as far as reasonably practicable' may be applied to any control or risk minimisation measure recommended.

Risk Assessment Classification						
	No Rating	Classification	Description			
Severity	3	Major	Death, major injury as defined in RIDDOR ¹			
	2	Serious	Injuries where people may be caused to be off work			
	1	Minor	All other injuries			
Likelihood of Occurrence	3	High	Where it is certain or near certain that harm will occur			
	2	Medium	Where harm is likely to occur			
	1	Low	Where harm might occur			
Risk Assessment Rating	7-9	High	Area of concern requiring urgent action			
	4-6	Medium	Area of concern requiring action			
	1-3	Low	Maintain existing controls or consider action as recommended			

¹ Reporting of Injuries, Disease or Dangerous Occurrences Regulations 1995





























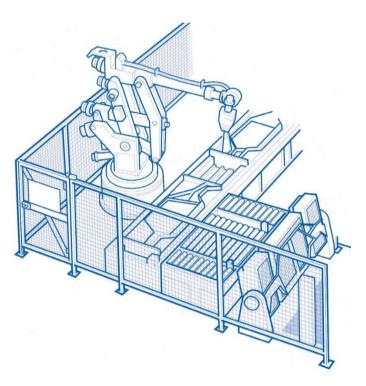








Promoting Safety | Reducing Risk | Adding Value





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