

Recommended Guidelines for  
Risk Assessments

No. 23

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asbestos removal contractors association

## **1. INTRODUCTION AND OBJECTIVE**

- 1.1. This document deals with how arrangements for complying with Regulation 3 of the Management of Health and Safety at Work Regulations 1999 can be dealt with in a practical way. A further aim is to help ensure that the risk of carrying out any operations is reduced to a level that is as low as is reasonably practicable.
- 1.2. The Management of Health and Safety at work Regulations 1999 that support and underpin the requirements of the Health and Safety at Work etc Act 1974 require that a risk assessment is carried out and recorded for all but trivial tasks that are carried out in any workplace.
- 1.3. Control Sheets are provided as appendices to this procedure and these can be used to assist the assessment process while also allowing for the recording of necessary information.
- 1.4. Carrying out a risk assessment need not be overcomplicated. Significant risks should be considered but the assessment must identify the hazards, evaluate the risks, recognise those that are significant, and decide whether the control measures taken are adequate or whether more should be done.
- 1.5. The detail required for each assessment and the complexity of any measures introduced to reduce the risk of injury are directly related to how serious and how likely such injuries are.
- 1.6. Therefore each work operation or task must be examined individually so that it can be established that all potential hazards have been identified and the risks subsequently brought down to an appropriate level.

## **2. SCOPE**

- 2.1. While it is accepted that the core business of ARCA members is focussed on asbestos and its associated risks, all ARCA members must take account of other hazards and risks that might result from their operations. This guidance has been developed to help ensure compliance with current legislation relating to all activities that are undertaken by ARCA members. Further guidance on risk assessments specific to asbestos work can be found in Chapter 3 of the Licensed Contractors Guide.
- 2.2. This guidance identifies a practical method for the conducting of Risk Assessments which can be used to demonstrate compliance with current legislation and help to ensure that a reasonably practicable approach has been applied to the risk assessment process.
- 2.3. Where contractors and or Clients supply risk assessments in a different format, this document can be used to establish that the key issues required for a risk assessment have been addressed.

### 3. DEFINITIONS

3.1. For the purpose of clarity the following definitions apply to this document:

**Hazard:** Something with the potential to cause harm to either a person or property e.g. working at height or electricity

**Risk:** The likelihood of the harm actually being realised e.g. the likelihood of someone falling from height, or being electrocuted while working on electrical equipment.

**Accident:** An unplanned or undesired event that may result in injury to a person and or damage to property.

**Near Miss:** An unplanned event that in all probability will result in an accident unless brought under control e.g. a brick falls from a scaffold but does not injure anyone.

**Control Measure:** An action or measure that is introduced with the aim of reducing the level of risk down to an acceptable level e.g. the use of guardrails and toe boards on scaffolds, or the briefing of an operative before they undertake a task or operation.

**Reasonably Practicable:** The term 'so far as is reasonably practicable' appears often in this guidance. Where dutyholders must control risks 'so far as is reasonably practicable', they must take account of the degree of risk on the one hand, and on the other the sacrifice, whether in money, time or trouble, involved in the measures necessary to avert the risk. Unless it can be shown that there is a gross disproportion between these factors and that the risk is insignificant in relation to the time, trouble and expense, the dutyholder must take measures and incur cost to reduce the risk to the lowest level that is reasonable. The higher the risk, the greater the effort that is considered reasonably practicable to control that risk.

**Risk Assessment:** An examination of a task or operation to identify any potential hazards and to subsequently establish if the risk is acceptable and if the existing control measures are adequate to control the risk.

**Acceptable Risk:** A situation where all reasonably practicable control measures have been implemented to reduce the likelihood of an accident.

### 4. MANAGEMENT RESPONSIBILITIES

4.1. The Management of Health and Safety at Work Regulations 1999 require all employers to undertake the following actions to ensure the health and safety of its workforce and persons who may be affected by the works.

4.2. Identify all hazardous activities resulting from their operation taking into account any other activities that are being undertaken in the proposed working area, and deciding who may be harmed and how.

4.3. Undertake a suitable and sufficient assessment and evaluate the risks to health and safety presented to both employees and non employees arising from any work activity (s) under their control

- 4.4. Introduce suitable control measures to bring the level of risk down to an acceptable level
- 4.5. Having completed such an assessment this shall be recorded
- 4.6. The outcome of the risk assessment process, including the control measures, must be brought to the attention of any person who may be affected
- 4.7. Risk assessments shall be reviewed periodically to ensure that the control measures are still adequate and fit for purpose. If you consider that the existing controls are not effective, or there have been improvements in work practice or the introduction of improved technologies and processes, you should draw up an 'action list' and prioritise the 'residual risks' dependent upon the potential severity of the risk, and consider the amount of people 'at risk'. Any review of a risk assessment should be documented.
- 4.8. Depending upon the assessment the following hierarchy should be followed:-
  - (i) Substitute the process / product for a lower hazard (e.g. use water based paint rather than spirit based)
  - (ii) Technical Progress. Take advantage of technological advances (i.e. remote breakers to remove concrete)
  - (iii) Reduce exposure (e.g. in the case of vibrating hand tools, reduce the amount of time an individual is exposed by job rotation)
  - (iv) Adapt the process / task to the individual, taking account of the individual's mental and physical capabilities
  - (v) Restrict access (i.e. in the case of electrical switchgear, lock the cupboard and install a permit to work system)
  - (vi) Personal Protective Equipment (PPE). Although considered as the last resort, the use of PPE may be appropriate
  - (vii) Emergency Arrangements. Provide suitable welfare facilities for washing and suitably trained personnel to administer first-aid in the event of an accident. Provide suitably trained personnel to assist in the evacuation of the work premises in the event of fire etc...

## **5. PROCESS**

### **5.1. Hazard Identification**

- 5.1.1. Before the commencement of any task or operation by any personnel on any site, the employer, or his site representative, is to carry out a review of the operations and activities that will be undertaken by their employees and others.
- 5.1.2. The hazard identification process must be carried out by a person who has sufficient competence in the proposed activity so that all reasonably foreseeable hazards are identified and appropriately recorded.
- 5.1.3. The outcome of the risk assessment will identify the way that a particular operation or activity needs to be undertaken. To ensure that this is managed effectively it is strongly recommended that the hazard identification process is carried out during the pre tendering process.

- 5.1.4. Clients have a legal obligation under the Health and Safety at Work etc Act 1974 to provide contractors with details of the hazards that they are aware of. Where contractors seek to identify hazards at the pre tender stage this will help to overcome this issue whilst also helping to ensure that the tender price has allowed for all reasonably foreseeable costs.
- 5.1.5. In addition ARCA members should also request the existing risk assessment for the site in order to determine whether any of their site activities impact upon any of the clients existing procedures.
- 5.1.6. All ARCA members are actively encouraged to ask clients for information on hazards and existing risk assessments at the pre tender stage. This proactive approach would allow ARCA members to gain relevant hazard information whilst also discharging their own Duty of Care obligations.
- 5.1.7. It is recommended that details of the hazards identified at the initial survey stage of the works are recorded on a hazard identification form. A form which could be used for this purpose is attached to this document as appendix 1.
- 5.1.8. The hazard identification form can be used as an aide memoir to help ensure that all site specific potential hazards are identified and recorded prior to the completion of the formal Risk Assessment document.

## **5.2. Deciding Who Might be Harmed and How**

- 5.2.1. The identification of the people at risk is vital because different groups will require the implementation of different control measures. Typical people who may be at risk from the hazards are:
  - Your own staff or operatives
  - Young workers
  - Visitors to the site
  - The clients staff including maintenance staff
  - General public
  - Those with physical disabilities or mental impairments
  - Those with visual or hearing impairments
  - Those with language or cultural diversity

The above groups of people may perceive the potential hazards in different ways.

## **6. EVALUATION OF RISKS**

- 6.1. Within legislation there is no prescribed format for the evaluation and subsequent recording of Risk Assessments. The following explains a process that could be used by any ARCA member to establish the Risk Rating of the various activities that are undertaken.
- 6.2. Risk Rating is necessary in order to identify their relative importance and to ensure that there are sufficient controls in place to demonstrate that the level of risk has been reduced to a level that is as low as is reasonably practicable (ALARP).

- 6.3. The degree of risk associated with a particular hazard depends on the likelihood or frequency of it causing an accident and the probable severity of the consequence of such an accident.
- 6.4. When establishing the Risk Rating the information gained from the Hazard Identification form should be used to complete the Risk Assessment Form. A Risk Assessment form that could be used for this process is included within Appendix 2 of this document.
- 6.5. The rating system in this guidance involves evaluating the likelihood of the event occurring and the severity of the outcome separately. Each hazard and its potential effect are assessed under **uncontrolled conditions** using a numerical 5 by 5 matrix methodology to determine likelihood and severity of the effect. The value for likelihood and severity are multiplied together to achieve a risk score.

Likelihood and severity have been defined as follows:

**Likelihood of an Accident Occurring**

- 1 – Highly improbable
- 2 – Remotely possible but known to occur
- 3 – Infrequent
- 4 – Occasional
- 5 – Frequent and regular

**Severity of Consequences**

- 1 – Minor injury, no time off work
- 2 – Injury resulting in up to 3 days off work
- 3 – Injury resulting in 3 or more days off work
- 4 – Major disabling injury (e.g. loss of limb, eye, etc.)
- 5 – Fatality

RISK (HAZARD RATING) = Likelihood x Severity  
 This matrix gives possible rating values as follows

		Severity				
		5	4	3	2	1
Likelihood	5	25	20	15	10	5
	4	20	16	12	8	4
	3	15	12	9	6	3
	2	10	8	6	4	2
	1	5	4	3	2	1

Example of how the above process works:

Activity and Associated Hazard	Hazardous event & Resulting Risk	Likelihood	Severity	Risk
Removal of an asbestos roof from a warehouse. Operatives are required to remove the roof sheets from the roof at a height of up to 14 metres.	Operatives falling from height	5	5	25

6.6. The above identifies the risk where no control measures are introduced. This indicates that the potential level of risk is very high and unacceptable. Therefore suitable and sufficient control measures need to be introduced to reduce the risk to as low as reasonably practical using the ALARP principle.

## 7. CONTROL MEASURES

7.1. The following principles of risk control should be applied to all operations regardless of location:

- a. If possible, avoid risks altogether by eliminating the hazard
- b. If elimination is not possible, aim for substitution by a less hazardous method
- c. Use technology to improve conditions
- d. Tackle risks at source; e.g. aim to reduce noise rather than provide hearing protection
- e. Adapt the work to the individual when designing work areas and selecting methods of work. The correct legislation should be consulted.
- f. Give priority to protection of the whole workplace rather than to individuals; e.g. protect a roof edge rather than supply a safety harnesses
- g. Where personal protective equipment (PPE) forms part of the control measures, it is essential that the type chosen is suitable for its application.

7.2. The aim should be to eliminate all hazards from the work place but in reality this is not going to be possible in the vast majority of cases. An example of where elimination could be applied would be where there is a trailing cable across a walkway floor. The cable presents the possibility of someone tripping over the cable. However if the cable is safely re routed at high level the likelihood of it causing a trip hazard is eliminated.

7.3. However, to remove the roof without exposing operatives would require total remote demolition of the building. Elimination would only be possible if a very significant amount of time, trouble, effort and cost were applied to totally demolish the building. As the building is to be re roofed for reuse such an approach could not be considered as either reasonable or practicable. Therefore adequate and appropriate control measures must be introduced and managed.

7.4. Controls should be effective and in place, or possible to implement **before** work starts, practical to implement, and known to all persons likely to be affected. The likelihood and severity are then reassessed to calculate the risk under controlled conditions.

Activity and Associated Hazard	Mitigation / Control Measures	Likelihood	Severity	Risk Rating
Removal of an asbestos roof from a warehouse. Operatives are required to remove the roof sheets from the roof at a height of up to 14 metres.	Operatives work from a suitable fixed scaffold.	1	4	4

- 7.5. Risk Rating in the above table refers to Residual Risk i.e. the level of risk that is left once suitable control measures have been introduced.
- 7.6. The above also indicates that it may be necessary to introduce a combination of control measures to reduce the risk down to an acceptable level.
- 7.7. The table below provides guidance on how Risk Ratings can be used to demonstrate that the risk assessment process is being managed in a reasonable manner.

Risk	Category	Action
20-25	Very High Risk unacceptable	<ul style="list-style-type: none"> <li>Stop the activity immediately.</li> <li>Implement control measures to reduce the risk to as low as reasonably practical. Ensure that controls are documented and staff are briefed on their importance</li> </ul>
10-19	High risk must be actioned	<ul style="list-style-type: none"> <li>This is a high risk activity.</li> <li>A safe system of work must be implemented and communicated prior to work commencing.</li> <li>Consider stopping activity if control measures are not suitable.</li> </ul>
05-09	Medium Risk	<ul style="list-style-type: none"> <li>Control measures should be reviewed to ensure they continue to be effective.</li> <li>Acceptable to work with care.</li> </ul>
01-04	Low or Minimal Risk	<ul style="list-style-type: none"> <li>No action required.</li> <li>If control measures in place, ensure that they are reviewed to ensure they remain effective</li> </ul>

This table can and should be used for both the pre-control and post control evaluation of risks.

**NOTE:** Regardless of the Risk Rating the employer shall still seek to reduce the level down to ALARP through the introduction of practicable control measures.

- 7.8. The Risk Assessment process is used to develop safe systems of work which can help to prevent or reduce accidents and should not just be considered as an exercise on paper to comply with the law. Similarly the temptation to under score any of the risks so that fewer controls are required must be resisted as this will result in the assessment being invalid and worthless.
- 7.9. At the other extreme the temptation to over score the risk assessment process is likely to result in the need to introduce unnecessary and unreasonable control measures that may be expensive to implement, difficult to manage and could even result in people ignoring the control measures.
- 7.10. The only time that it will be established if a risk assessment has adopted a reasonably practicable approach is when there has been an accident and a prosecution follows. Under these circumstances it will be either the Magistrates or a Judge who will decide if the approach that has been adopted for a particular activity is suitable and sufficient.

## **8. RECORDING YOUR FINDINGS**

- 8.1. Legislation states that if you employ fewer than five people there is no need to document and record the findings of the risk assessment process. However it is strongly recommended that you record the findings of your risk assessment.
- 8.2. There are numerous ways of recording the findings and an example form is included as appendix 2 of this document. If used the example in appendix 2 should allow the company to demonstrate compliance to any third parties.
- 8.3. Having completed the Risk Assessment process, the information it contains should be used to assist in the development of a site specific safe system of work.

## **9. COMMUNICATING THE RESULTS OF YOUR RISK ASSESSMENT**

- 9.1. Having completed the evaluation process and identification of any necessary control/mitigation measures, the outcomes must be brought to the attention of the people who may be affected by the particular activity.
- 9.2. Prior to the commencement of any site activities, all employees carrying out the tasks should be formally briefed on the contents of the risk assessment.
- 9.3. Employers or their nominees should use the assessments to communicate to their staff what the risks to their safety are and the control measures to be used. They must also be told of their personal responsibilities with particular reference to on-site residual risk.
- 9.4. Managers should do this by holding team briefings where the contents of the risk assessments should be explained.
- 9.5. New employees must also be briefed on the risks and precautions as part of their induction.

## **10. REVIEWING ASSESSMENTS**

- 10.1. Employers should review the assessments at least annually to ensure that they continue to be appropriate for the work carried out by their staff. In addition to this, a further review needs to take place where there are significant changes to the work method, work practice, technology, or significant change in personnel undertaking the task.
- 10.2. A review of the validity of the risk assessment is also to be carried out by the employer following any accidents or near misses.

## **11. REFERENCES**

- The Health and Safety at Work etc Act 1974
- L21: Management of Health and Safety at Work Regulations 1999
- HSG 247: The Licensed Contractors Guide

## **12. FURTHER READING**

- HSG 96: Costs of accidents at work
- HSG 137: Health risk management: practical guide for managers in small and medium-sized enterprises
- HSG 155: Slips and trips: guidance for employers on identifying hazards and controlling risks
- HSG 183: 5 steps to risk assessment: case studies

### Leaflets

- IND(9)163(L): Five steps to risk assessment
- IND(G)218(L) Guide to risk assessment requirements

## HAZARD IDENTIFICATION AND RECORDING FORM

<b>Site Address</b>	<b>Date</b>	<b>Reference No</b>
<b>Brief description of the proposed work activity</b>		
<b>Persons affected e.g. <i>Staff, clients representatives &amp; visitors to the site</i></b>		
<b>Hazard information provided by the Client (give details)</b>		
<b>Hazards Present</b>	<b>Details and location of Hazard</b>	
Electrical		
Working at height		
Harmful substances (Biological / Chemical / Radiation)		
Manual Handling		
Workplace Layout		
Slips, Trips & Falls		
Pressure Systems		
Noise, vibration		
Storage of equipment or substances		
Mechanical Handling		
Equipment maintenance		
Confined space working		
Extremes of temperature (including hot works)		

APPENDIX 1

Hazards present Continued	Brief Description of the Hazard
Construction Works	
Access & Egress	
People affected	
Use of Portable Electrical Tools	
Fire	
Violence to staff	
Asbestos	
Traffic management	
Site Activities	
Unsafe Buildings	
Falling objects	
Sharps	
Pigeon droppings	
Impact on occupiers Health and Safety Plan	
Lone Working	
Other Hazards Identified	
Signed on behalf of <i>Your Organisation by:</i> <span style="float: right;">Date:</span>	
Print Name: <span style="float: right;">Position:</span>	

APPENDIX 2

<b>Job No:</b> 2655 / 334	<b>ASSESSOR:</b> Pint and Sign
<b>SITE:</b> The Old Brickworks, AN Other Street, London EC1	<b>JOB TITLE:</b> Operations Manager
<b>SCOPE OF WORK:</b> Use of elevated working platform to carryout visual Inspection of Roof Covering	<b>DATE PRODUCED:</b> 03 July 2006
<b>PERSONS AFFECTED:</b> Operatives undertaking the task, Site Visitors and the Clients Staff	<b>Planned Review Date:</b> June 2007

ID	Activity and Associated Hazard	Hazardous Event and Resulting Risk	L	S	R	Mitigation /Control	L	S	RR
1	Failure of the lifting equipment	Possible death from fall due to sudden movement of the equipment	5	5	25	<p>Ensure that the platform has been subject to a regime of planned preventative maintenance and certification to support this is available on site.</p> <p>This type of equipment shall only be operated by persons who have been trained in its use and have subsequently been confirmed as being competent in the operations.</p> <p>The operator is required to carry out a pre stat daily check of the equipment</p> <p>The SWL of the equipment is not to be exceeded</p>	1	5	5
2	Entrapment third party striking the plant	Possible death due to crushing of the operative or a third party	4	5	20	<p>During the movement of the plant a banksman is to be used to warn third parties</p> <p>When in use the area around the base of the plant is to be barriered off to prevent any third parties entering the work area</p> <p>Warning signs are to be placed on approach roads</p>	1	5	5
3	Over turning of the platform during use	Possible death due to crushing	5	5	25	<p>Ensure the outriggers are fully extended and on stable ground</p> <p>Ensure that the platform is used in a level position</p> <p>Work is only to be carried out from inside the platform cage. i.e over reaching is not permitted</p>	1	5	5

L: Likelihood (5) – Frequent; (4) – Probable; (3) – Occasional; (2) – Remote; (1) - Improbable  
 S: Severity (5) – Fatal; (4) – Major; (3) – Serious; (2) – Minor; (1) Low  
 R: Risk Rating (L x S) – Likelihood x Severity  
 RR: Residual Risk Rating Risk Rating following application of additional controls. (15 to 25 – Unacceptable, 10 to 14 High; 6 to 9 Medium; 4 to 5 – Low; 1 to 3 - negligible)

## OTHER ARCA PUBLICATIONS AVAILABLE

Arca Publications are compiled by the Arca Technical Committee which is comprised of representatives from the Health and Safety Executive, Local Authorities, client bodies, UKAS accredited laboratories, asbestos removal contractors and plant and equipment suppliers to the industry. All publications are reviewed and revised as required on a regular basis.

- No. 1 Recommended Guideline for Monitoring of Airborne Asbestos Fibres
- No. 2 Recommended Guidelines for the Correct Carriage and Disposal of Asbestos Wastes
- No. 3 Guidance on the Selection of Personal Protective Clothing for Work with Asbestos Containing Materials
- No. 4 Recommended Guidelines for the Selection, Care and Maintenance of Respiratory Protective Equipment (RPE) Recommended for Use During Asbestos Removal Operations
- No. 6 Recommended Guidelines for the Selection, Use and Maintenance of Filtered Air Extraction Equipment (Negative Pressure Units)
- No. 8 Recommended Guidelines for Personal Decontamination Procedures When Working with Asbestos
- No. 10 Recommended Guidelines for the Encapsulation of Asbestos Based Products
- No. 11 Guidance Note for Asbestos Removal in Confined Spaces
- No. 12 Recommended Guidelines for COSHH Assessments
- No. 13 Recommended Guidelines for Decontamination and Workshop Facilities for the Maintenance and Testing of Class H Vacuum Cleaners and other Plant which has been used on Asbestos
- No. 14 Guidance Note on Dust Suppression
- No. 15 Guidelines on the Implications of the Construction (Design and Management) Regulations 1994 for Work involving Asbestos Material
- No. 16 Recommended Guidance on Risk Assessments, Notifications, Waivers and Plans of Work
- No. 17 Recommended Guidelines for Working with Asbestos-Containing Textured Coatings (Artex Type)
- No. 18 Recommended Guidelines for Working with Asbestos Insulating Board
- No. 19 Recommended Guidelines for Record Keeping
- No. 20 Recommended Guidelines for Managing Work with Asbestos Containing Materials
- No.21 Guidance on Working with Asbestos Cement
- No.22 Emergency Procedures
- No. 23 Risk Assessments

## ATaC BEST PRACTICES NOTES

- No. 1 Asbestos Air Testing and the Role of the Laboratory /Analyst
- No. 2 Management and Supervision of Asbestos Removal Work the Role of Project managers and Supervisors
- No. 3 Asbestos Surveys, Assessment and Management
- No. 4 The Certificate of Reoccupation

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