

WINCHMORE BRICKWORK

Section 2

Health and Safety Procedures

March 2008

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Part One – General Company Procedures

2.1.1 Accidents

Reporting of an accident must be carried out in accordance with the *Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995* (RIDDOR). These Regulations came into force on 1st April 1996. The form F2508 (01.96) must be used for reporting to the HSE any death, injury, or dangerous occurrence as detailed by the Regulations.

All accidents and dangerous occurrences must be reported as soon as possible to the Winchmore Brickwork office so that the Safety Adviser, Paul Campbell or Senior Management can give appropriate detailed advice on what action should be taken under the circumstances.

Facts and evidence regarding accidents and dangerous occurrences should be obtained as soon as possible. A copy of all accident documentation, photographs etc., must be sent to the Winchmore Brickwork office 'Accident File'. Ensure the Company Accident Form BI 510 is completed for every accident/illness.

Reporting of Accidents (Management Responsibilities)

Listed below is the action to be taken in reporting the different categories of accidents and dangerous occurrences in accordance with the RIDDOR Regulations 1995.

- a) A death, major injury or condition or dangerous occurrence. Inform the local Health and Safety Executive immediately by telephone. A completed F2508 Form (Rev. 1st April 1996) must be sent to the Local HSE, Office within ten days.
- b) Injuries, which result in more than three days absence from work, must be reported on an F2508 Form (Rev. 1st April 1996) to the local HSE Office within ten days from the date of the injury.
- c) Diseases must be reported on F2508A (Rev. 1st April 1996) to the local HSE Office.
- d) Enter details of all accidents in the appropriate Accident Book BI 510 or your own Company Accident Records.
- e) Carry out an investigation of the accident taking care to ensure that written statements are obtained from all witnesses. A thorough investigation into an accident should provide Management with answers to the following questions:

What caused the accident?

Who was involved?

When did it occur?

Where did it occur?

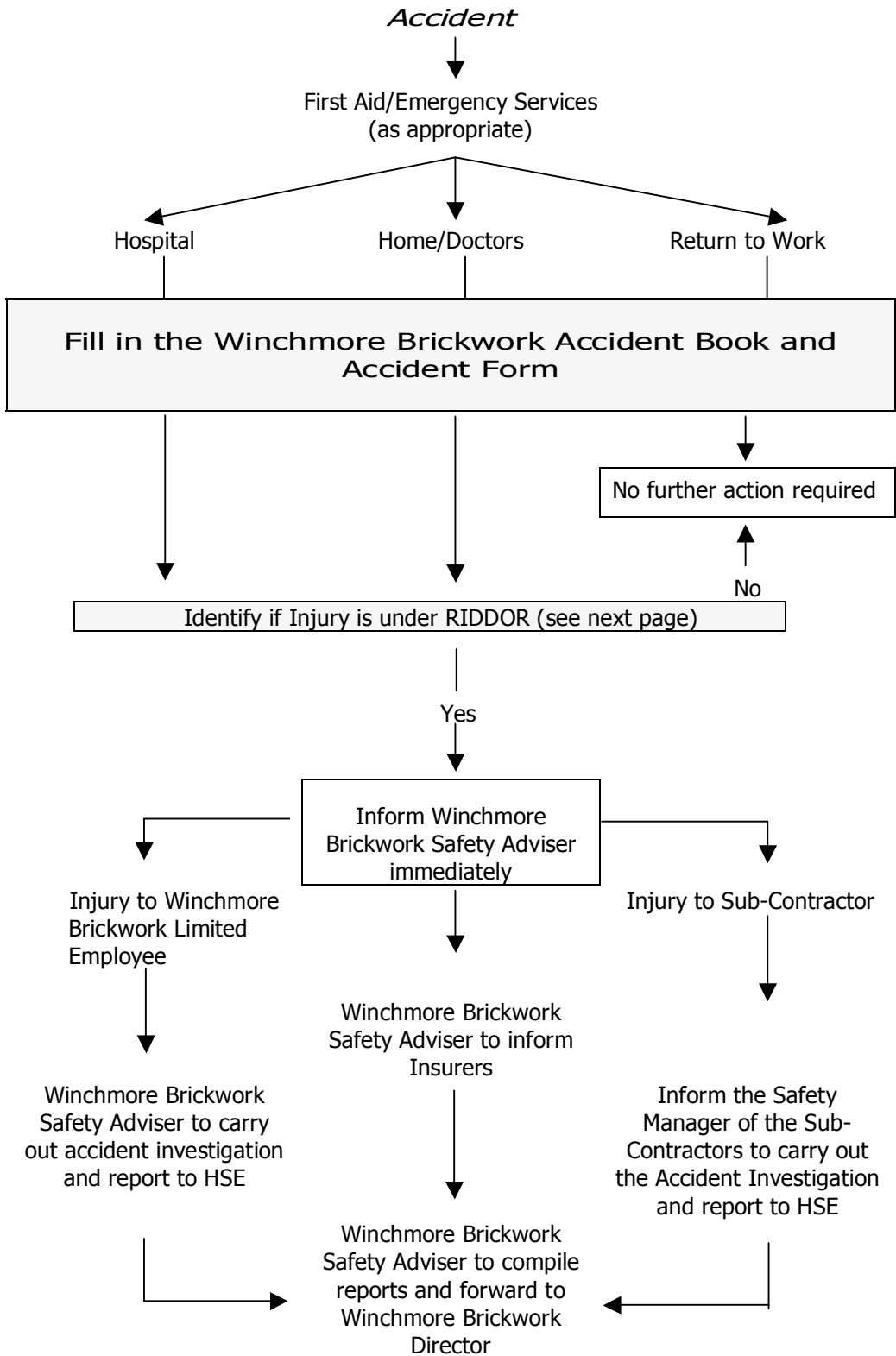
Why did it occur?

How could it have been prevented?

How can a recurrence be prevented?

The procedure, which all Winchmore Brickwork Employees will adopt for the reporting of accidents, is contained overleaf. This can also be found within the Site Safety Register, along with copies of the F2508 (01.96) Form, the Company Accident Form B1 150 and an Incident Report Form.

Accident Reporting Flowchart



For Notifiable Dangerous Occurrences and Diseases, please see Winchmore Brickwork Health and Safety Policy or seek advice from Winchmore Brickwork Safety Adviser.

Injuries under RIDDOR 1995

Fatality

Reportable to HSE immediately by telephone, F2508 within 10 days

Major Injury

Reportable to HSE immediately by telephone, F2508 within 10 days

- Any fracture, other than fingers thumbs or toes;
- Any amputation;
- Dislocation of the shoulder, hip, knee or spine;
- Loss of sight (whether temporary or permanent);
- A chemical or hot metal burn to the eye or any penetrating injury to the eye;
- Any injury resulting from an electrical shock or electrical burn (including any electrical burn caused by arcing or arcing products) leading to unconsciousness or requiring resuscitation or admittance to hospital for more than 24 hours.
- Any injury: a) leading to hypothermia, heart induced illness or to unconsciousness;
 - b) requiring resuscitation;
 - c) admittance to hospital for more than 24 hours.
- Loss of consciousness caused by asphyxia or by exposure to a harmful substance or biological agent;
- Either acute illness requiring medical treatment or loss of consciousness, which result from the absorption of any substance by inhalation, ingestion or through the skin.
- Acute illness which requires medical treatment where there is a reason to believe that this resulted from exposure to a biological agent or its toxins or infected material.

Over 3-day injury

Any other injury that prevents a person from carrying out their normal duties for more than 3 days. Over 3 days include no working days such as weekends and Bank Holidays.

Reportable to HSE via F2508 only within 10 days.

If you are not sure about the categories above, or have any questions relating to accidents do not hesitate to contact the Winchmore Brickwork Safety Adviser.

2.1.2 Alcohol And Drugs Policy

Anyone found under the influence of or in possession of alcohol or an illegal drug must be removed from Company premises and/or areas under the Company's control and would be subjected to disciplinary measures. Anyone found smoking in a designated 'No Smoking' area must be instructed to extinguish the cigarette immediately in a safe manner and be subjected to disciplinary measures. Special consideration must be given to Client conditions and requirements regarding this subject when working on their premises/Contracts.

Random drug screening may be carried out on Employees engaged on safety critical work. If tests prove positive for alcohol or drugs, this would be classified as a breach of the Company Health and Safety Policy and would therefore result in disciplinary procedures, which could include dismissal. The Company as standard will use the standards for a positive test shown below for Drugs and Alcohol generally. Company Management should check the standards of positive tests with all the Company's Clients and if there are standards for positive tests lower than the figures below, then those lower standards will be adopted by the Company for that particular Client.

Employees should note that it might take more than 24 hours for alcohol in blood to disperse. Employees should carefully consider this aspect, particularly those who are engaged on safety critical work, or those Employees engaged on Contracts where the Company's Clients specify very low acceptable alcohol levels.

Any Company Employee found under the influence, or in possession of illegal drugs whilst at work, will be removed from site immediately and the matter reported to the Police. This type of offence will be classified as a major breach of the Company Health and Safety Policy, which would result in the Employee being dismissed.

Company Standards

All Employees required to work on the Company's premises/Contract are required to be formally briefed on the Drugs and Alcohol Policy. Each Employee receiving the standard Company's pack of documentation, which is inclusive of the Drugs and Alcohol Policy, are to receive briefings covering this subject as a part of their Induction for the Contract works prior to starting work.

Positive screening results

For the purpose of the standards, means screening for:

The presence of drugs, other than medication, which does not affect the work performance.

For the purpose of the standard, means screening for:

*More than 29 milligrams of alcohol in 100 millilitres of blood, or
More than 13 micrograms of alcohol in 100 millilitres of breath, or
More than 39 milligrams of alcohol in 100 millilitres of urine.*

2.1.3 Company Premises Fire Arrangements

It is important that all staff remain vigilant in the prevention and detection of fire on Company premises. If you consider there is a potential fire hazard inform your immediate Supervisor/Manager immediately.

Should a fire start, do not panic, shout out loud "Fire, Fire, Fire" and go to the nearest fire alarm point immediately and raise the alarm so that all other persons in the building are made aware of the danger.

After the alarm is raised, providing you have been trained in the use of fire extinguishers and as long as there is no personal risk, attempt to extinguish the fire using one of the extinguishers sited around the premises. Ensure that you use the correct fire extinguisher for the relevant type of fire, for example, do not use water extinguishers for electrical fires.

Leave the building by the nearest safe Fire Exit. Do not stop to collect personal belongings.

After leaving the building, go to the main assembly point, do not leave the fire assembly area until you have given your name to the person calling the register roll who will give any necessary further information. Do not re-enter the building.

The main fire assembly point is situated directly out the main gate and over the canal bridge, unless otherwise directed.

The person in charge of evacuation of the building in the event of a fire must be made known to all Employees. This person is to take the Employees attendance register and the visitor's book to the fire assembly point to assist the roll call.

If the fire cannot be controlled quickly with the aid of extinguishers, the Fire Service should be called using 999 Emergency Services. The Reception Staff should carry this out where possible. If the telephone system is not working or a phone is not accessible, go to one of the adjoining buildings to make the call.

If the fire is spreading ensure occupants of adjoining buildings are made aware of the potential danger.

Be familiar with the position of the fire alarm points as well as the location of extinguishers.

General precautions to prevent fires

- a) Ensure all equipment that can cause a fire is handled with the utmost care.
- b) Do not leave any naked flames unattended.
- c) Extinguish cigarettes and matches properly and do not smoke in No Smoking Areas.
- d) Do not throw cigarette ends or any hot items into bins or containers. Use ashtrays.
- e) Ensure all electrical machinery and equipment is switched off after use.
- f) Ensure that gas appliances are properly turned off after use.
- g) Store gas and oxygen cylinders in a proper manner in the designated area.
- h) Substances that have the potential of causing a fire must be used and stored correctly.

i) Ensure that the Company premises have adequate fire protection to reduce the possibility of the spread of a fire where appropriate.

2.1.4 Company First Aid Arrangements

The Health and Safety (First Aid) Regulations 1981

Employers must ensure adequate first aid provisions are made for their Employees. The Approved Codes of Practices explain 'adequate and appropriate' provisions. Detailed information regarding the first aid requirements can be found in the Company's library of safety information.

General Company Requirements for First Aid

Management should ensure the Company's legal requirements for first aid is fully complied with. Provisions for first aid vary depending upon the nature of the works and the number of personnel employed. First Aid should be able to be catered for without difficulty at the Head Office workshops and yard. Where personnel etc., are working on site, Management should negotiate arrangements with Principal Contractors whenever possible. Where gangs of workers are to be supplied to sites to carry out works, one should be a Trained First Aider. Where the Company has lone workers, special consideration should be given to the Accident Section of this Policy section.

First Aiders must be properly trained by an HSE approved training body.

For construction sites, where there are less than five Employees, there is no statutory duty to have a First Aider, but the Employer must ensure that an 'appointed person' is present to take charge of the situation if a serious injury or major illness occurs. An appointed person is someone who has attended a one-day HSE Approved First Aid Course. However, it is always advisable to have a trained First Aider available.

First Aid Kits and Boxes

All premises and places of work should have an appropriate amount of complete first aid kits. First aid kits/boxes must be easily accessible for the first Aiders/appointed persons. Boxes/kits should be checked frequently to ensure they are fully stocked and that all items are in a useable condition. First aid boxes/kits locations must be clearly identified with a first aid sign. Only specified first aid contents are allowed in first aid kits/boxes as detailed in the HSE Guidance Notes. All first aid cases that are treated must be recorded in the accident book. (Form B1 510).

2.1.5 Safety Improvement Scheme

Winchmore Brickwork aims to actively audit Company procedures in relation to Health and Safety procedures both on site and within the Company's offices to ensure compliance with the Company's Health and Safety Policy and all current legislation. The Company therefore expects the co-operation of all its staff in the manner detailed within Section One of the Policy. Where it is highlighted the requirements of the Policy are not being adhered to the appropriate action will be taken to remedy any problems. This would include providing the appropriate training, equipment and where negligence of individuals is a factor, disciplinary action.

Safety Inspections

Winchmore Brickwork Limited will conduct a system of site safety inspections, their own Health and Safety Adviser, Paul Campbell. Where a site safety inspection is conducted, the site agent will be issued with a copy of the Safety Inspection Report, which will detail any issues, which have been noted during the inspection. The Site Agent will be expected to comply with any requirements stipulated by the Inspecting Person immediately (where practicable). Enquiries should be first addressed with the Inspecting Person. If further issues are to be addressed, Winchmore Brickwork Management is to be contacted. Where requests for works to cease are made on safety grounds, this should be complied with and any enquiries should be made with Winchmore Brickwork Management.

The Company is always looking for ways to improve the standards of safety regarding operations. If you have any ideas which could contribute to safety on site, then Paul Campbell and Tony Yianni would be pleased to hear from you, or if you feel that the Company is not doing its best for you in the area of safety, please do not hesitate to contact the relevant people. You may do this either in person or in writing. Both will be in the strictest confidence.

2.1.6 Employment Of Young Persons

Management of Health and Safety at Work Regulations 1999

Young Persons - Definition

- a) A young person means a person who has passed the appropriate school leaving date but has not reached the age of 18 years.
- b) Young workers are seen as being particularly at risk because of their possible lack of awareness of existing or potential risk, due to their immaturity and lack of experience.

Employers are required to:

- a) Assess risks to young people under 18 years of age before they start work;
- b) Take into account their inexperience, lack of awareness of existing or potential risks and immaturity;
- c) Address specific factors within the Risk Assessment;
- d) Provide information to parents/guardians of school age children about the risks and the control measures to be adopted;
- e) Take account of the Risk Assessments and determine whether the young person should be prohibited from certain work activities except where it is necessary for their training;
- f) Proper supervision to be provided by a competent person.

In respect of Sub-Contractors employing young persons, proof of Risk Assessments, information, instruction and training is to be provided prior to commencement on site.

A register of all young persons employed on site is to be maintained on site with copies supplied to the Company Head Office.

2.1.7 Environmental Policy (Summary off. See full policy for further details)

The objective of Winchmore Brickwork is to run its operations avoiding unnecessary or unacceptable effects on the environment. Any effects will be minimised as far as practicable. Environmental considerations will be given equal importance to the more traditional business issues such as production, research, sales, safety and finance.

The Company will work towards achieving its environmental objectives by,

1. Minimising the impact of all its operations on the local and global environment and the quality of life of the local communities in which the Company operates.
2. Meeting all relevant statutory regulations.
3. Maintaining the cleanliness and appearance of premises to the highest practical standards.
4. Aiming for efficient use of all resources used in its operations and by reduction of waste through process improvements. Recycling of material is continued wherever feasible and further positive steps are taken to conserve resources, particularly those that are scarce or non-renewable.
5. Fully considering, in advance where possible, the environmental effects of any significant new development and adjust the Company's plans accordingly.
6. Providing customers with the information necessary to enable our products to be properly used, stored and disposed of so as to avoid unacceptable effects on the environment.
7. Working with suppliers to ensure that the products and the services they supply are environmentally acceptable.
8. Providing the necessary information to enable Employees to operate the processes properly and with minimal effects on the environment.

2.1.8 Equal Opportunity Policy

Winchmore Brickwork acknowledges the desirability of equal opportunities for employment and the observance of the codes of practice as far as it is reasonably practicable.

The intention of the policy is to see that no job applicant or Employee receives less favourable treatment on the grounds of disability, sex, marital status, race, colour, nationality or ethnic or national origins, or is disadvantaged by unreasonable conditions or requirements.

Individuals should be selected, promoted and treated on the grounds of their performance, attitude and abilities. All suitably qualified Employees will be given equal opportunity to progress within the organisation.

All those who come into direct or indirect contact with Employees or applicants for employment should ensure that they understand this policy and recognise the part they have to play in its fulfilment.

It is the policy of the Company to encourage the employment and career development of disabled persons. No unnecessary limitations are placed on the type of work that they can perform.

Full and fair consideration will be given to disabled applicants for employment; existing Employees who become disabled will have the opportunity to re-train and continue in employment wherever possible.

2.1.9 Occupational Health Policy

Winchmore Brickwork is committed to the general provisions of occupational health care and to provide:

- Advice and guidance to management in relation to the health and welfare of employees.
- The provision of health monitoring, health surveillance and relevant records as required by the Control of Substances Hazardous to Health Regulations 1994, Chemical Hazard Information Packaging Regulations 1993 and the Health and Safety (First Aid) Regulations 1996.
- The provision for the care and rehabilitation of staff suffering from mental health disorders.
- Controls for the monitoring of extreme temperatures while at work.
- Controls and assessments for tasks and processes involving manual handling.
- Controls and systems for personnel involved in operating display screen equipment workstations.
- Controls and safe systems for personnel involved in the use of vibrating tools that present a risk of hand, arm vibration syndrome.
- To provide reasonable adjustments for people with disabilities to support them in employment.
- To manage early return to work after sickness certification and wherever possible support rehabilitation after prolonged illness.

Occupational Health Screening

All new and potential employees will be required to complete a confidential pre-employment health-screening questionnaire. All employment is subject to medical clearance and personnel must be aware that the post is subject to medical clearance at the advertisement stage.

The company may arrange and finance health monitoring or screening for employees where required. The Director may request individual employees to attend a medical examination where recommended by in a formal occupational health assessment.

Such an examination would be carried out by mutual agreement and the results classified as "Medical in confidence" information by the Managing Director.

The purpose of occupational medical examination is to identify cases of illness potentially induced by work related undertakings or where the works process exacerbates existing medical conditions.

Part Two – Office Procedures

2.2.1 Health & Safety In The Company's Offices Etc. *Workplace (Health, Safety And Welfare) Regulations 1992*

Application

These Regulation requirements apply to all the Company's workplaces provided for Employees and self-employed, which includes offices, workshops, stores and yards etc., and their associated corridors, staircases, access roads, and welfare facilities etc., other than those on a construction site where the Construction (Health, Safety and Welfare) Regulations would apply.

If construction work is carried out on the Company offices etc., the construction works must be fenced off, otherwise the Workplace Regulations, together with the Construction (Health, Safety and Welfare) Regulations will apply. The Workplace Regulations also do not apply to mines, quarries and domestic premises. Operational ships, aircraft, trains and road vehicles are also excluded from the Workplace Regulations, apart from when stationary in the workplace, when precautions against falls, or falling objects, must be taken.

The Workplace Regulations require employers and others in control of workplaces to take measures concerning the following matters:

Maintenance

The workplace and associated equipment and systems must be maintained in a clean and efficient state, in efficient working order and in good repair. Maintenance of equipment and systems should be carried out in accordance with manufacturers' recommendations and authoritative guidance such as that published by the HSE or the British Standards Institution. Where appropriate (e.g., in the case of ventilation systems), maintenance records should be kept.

Ventilation

Where windows or other openings will not provide suitable ventilation, mechanical ventilation systems should be provided and properly maintained. Detailed advice is given in HSE Guidance Note EH22 *Ventilation in the Workplace*.

Temperature

The temperature in workrooms must be "reasonable" and where practicable, this should normally be at least 16°C. Where work involves significant physical effort, the temperature should be at least 13°C. If, despite measures to heat or cool a workroom, workers are exposed to temperatures, which do not give reasonable comfort, suitable protective clothing and rest facilities should be provided. Sufficient suitable thermometers must be readily available to allow workers to check the temperature in the workplace.

Lighting

Natural lighting should be provided, where reasonably practicable; windows and skylights must therefore be kept clean. Lighting should be sufficient to enable people to work and move safely without visual fatigue. Local lighting should be provided where necessary. Where appropriate, emergency lighting must be provided and maintained. Further guidance is given in HSE booklet HS(G) 38 *Lighting at Work*.

Cleanliness and Tidiness

Floors, walls and ceilings, together with furnishings must be kept sufficiently clean, the standard of cleanliness depending on the use of the workplace. Some other Regulations, e.g., the Food Hygiene Regulations have specific requirements. Absorbent floor surfaces, such as untreated concrete or timber, which are likely to be contaminated by oil, grease, etc., should be sealed or coated, e.g., with suitable non-slip floor paint. Waste, dirt and refuse should be cleared regularly.

Furniture, materials and tools should be placed so that they do not cause people to trip or fall and do not obstruct access or fire escape routes.

Space

Workrooms should have enough space to allow people to move with ease. The total volume of a workroom, when empty, divided by the number of people normally working in it, should be at least 11m³ (in this calculation, a room or part of a room which is more than 3.0m high, should be counted as 3m high). The figure of 11m³ per person may be insufficient if much of the room is taken up with furniture, etc. This recommended minimum figure does not apply to rooms used for lectures, meetings etc.

Workstations & Seating

Workstations should be arranged so that each task can be carried out safely and comfortably. Seating should, where possible, provide adequate support for the lower back; a footrest should be provided where the foot cannot comfortably be placed flat on the floor. Further guidance on seating is given in HSE booklet HS(G)57 *Seating at Work*. (See also Display Screen Equipment Regulations).

Floors and Traffic Routes

Floors of workplaces and surfaces of passages, staircases, access roads, etc., must be suitable for their intended use and properly maintained. Measures must be taken to reduce the risk of persons slipping, tripping and falling, or of vehicles becoming unstable. Any open side of a staircase should be securely fenced by an upper rail at 900 mm, or higher and a lower rail. A secure and substantial handrail should be fixed on at least one side of every staircase.

Precautions against persons or objects falling

Secure and suitable fencing, guardrails or covers should normally be provided where persons are liable to fall or at any height over 2m. Fencing installed after 1 January 1993 should extend to at least 1.10m in height, except where lower fencing has been approved under Building Regulations. Guardrails should consist of a top rail and at least one intermediate rail should be fixed to prevent persons from falling under the top rail. Where necessary, adequate up stands or toeboard should be fixed to prevent objects falling.

Where it is not reasonably practicable to take measures such as the provision of fencing, guard-rails, etc., to prevent falls, entry to such "danger areas" should be restricted to authorised persons who have received adequate information, instruction and training on any appropriate safe system of work. In certain situations a Permit-to-Work system will be appropriate. The provision of safety nets or personal protective equipment, such as safety harnesses, may be necessary.

Ladders

Fixed ladders, which include steep stairways (which are descended facing the treads or rungs), should extend at least 1.10m above any landing place that is served. Fixed ladders installed after 31 December 1992, with a vertical height of more than 6m, should have a suitable resting place every 6m. Floor openings for ladders should be as small as possible, with fencing and a gate provided where necessary to prevent falls.

Fixed ladders at an angle of less than 15° to the vertical, which are more than 2.5m high, should, where possible, be fitted with safety hoops or permanently fixed fall arrest systems. Ladders should conform to BS 4211 Specification for ladders for permanent access and BS 5395 Code of Practice for the design of industrial type stairs, permanent ladders and walkways (*See Section 2.3.10 – Ladder Safety*).

Roof Work

Where frequent access is needed to roofs, suitable fixed, safe means of access should be provided.

Stacking and Racking

Materials should be stacked and stored in such a way that they are not likely to fall and cause injury. Racking should be of adequate strength and stability.

Loading and Unloading Vehicles

The need to climb on top of vehicles or their loads should be avoided as far as possible. Where this is unavoidable, measures such as fixing fencing on top of a tanker should be taken to prevent falls.

Doors and Gates

Doors and gates, which swing in both directions, should have a transparent panel. On main traffic routes, all doors should be fitted with such panels. Power operated doors and gates must have appropriate safety features to prevent injury to persons where it is possible to be struck by them.

Traffic Routes

Traffic routes must allow the safe movement of persons and vehicles within the workplace and when entering or leaving it. Appropriate measures may include: clearly marked separate routes for pedestrians and vehicles; fitting reversing alarms to vehicles; appointment of banksmen to supervise safe movement of vehicles; display warning signs to alert drivers to restrictions in force; setting speed limits for vehicles and installing road humps; warning indication of height limitations or obstructions; use of one-way systems for vehicles; wearing of high visibility clothing.

Sanitary Conveniences and Washing Facilities

Suitable and sufficient facilities must be provided for the maximum number of persons likely to be at work in a workplace at any one time. Facilities should be available for use without undue delay and account should be taken, therefore, of the pattern of work. Account should also be taken of the type of work involved; washbasins, with running hot and cold, or warm water, must always be provided but, in some cases, the provision of showers and/or baths may be appropriate.

<p>The following table shows the minimum facilities, which should be provided. Where separate sanitary accommodation is provided for different groups (e.g., men, women, office workers or manual workers), a separate calculation should be made for each group. An additional water closet and one additional washing station should be provided for every 25 (or fraction of 25) people above 100.</p>	Max. number in the workplace	Number of water closets
	1 to 5	1
	6 to 25	2
	26 to 50	3
	51 to 75	4
	76 to 100	5
<p>Where only men use sanitary accommodation, the following table may be used as an alternative to column 2 above. In the case of water closets used only by men, one additional water closet and one additional urinal should be provided for every 50 men above 100. Sanitary accommodation must be adequately ventilated and all facilities must be kept clean.</p>	Max. number in the workplace	Number of water closets
	1 to 15	1
	16 to 30	2
	31 to 45	2
	46 to 60	3
	61 to 75	3
	76 to 90	4
	91 to 100	4

Drinking Water

An adequate supply of wholesome drinking water must be provided, together with suitable cups, etc., unless the supply is from a drinking fountain. There should also be facilities for washing cups, or alternatively, disposable cups should be provided. Drinking water supplies should be clearly marked as such if there is any risk to people drinking from contaminated supplies.

Accommodation for clothing and changing

Suitable and sufficient accommodation must be provided for any special work clothing and for personal clothing, which is not worn at work. Clothing should be able to be hung in a clean, warm, dry and well-ventilated place, with at least a separate hook, peg or hanger for each worker.

Where workers are required to wear special work clothing, adequate room for changing should be provided and measures should be taken to ensure security, for example by providing lockers.

Facilities for rest and meals

Suitable seats should be provided for workers whose work gives them opportunities to sit. Seats should also be provided for use during breaks; such seats should be in an area where protective equipment, such as hearing protection, need not be worn.

Other than in offices, or similar clean workplaces, separate rest areas or, in new workplaces, separate rest rooms, should be provided. Rest facilities should be arranged so that non-smokers are not subjected to discomfort from tobacco smoke. Suitable and sufficient facilities for eating meals should be provided where workers regularly eat meals at work.

Seats in work areas may be suitable, provided they are in a clean place and there is a suitable surface on which to place food. Minimum facilities should include a means of preparing or obtaining a hot drink and, where necessary, means of heating food. Eating facilities should be kept clean and be in the charge of a responsible person.

Further Information

An Approved Code of Practice supports these Regulations. Further information is contained in HSE booklet L24 *Workplace Health, Safety and Welfare*, which contain the full text of the Regulations, the Approved Code of Practice and detailed guidance.

2.2.2 Health & Safety (Display Screen Equipment) Reg's 1992

Possible hazards associated with the use of Display Screen Equipment (DSE) are mainly those leading to musculoskeletal problems, visual fatigue and stress. The likelihood of experiencing any of these problems is remote and usually related to duration and intensity of the use of DSE, combined with the ergonomic factors of the workstation and the environment in which it is situated

The Regulations apply only to the protection of Employees who are 'users' as defined by the Regulations. A 'user' means an Employee who habitually uses DSE as a significant part of normal work, whether at his/her own employer's workstation, at another employer's workstation, or at a workstation at home.

Whether an Employee is a 'user' depends on a number of factors, which will indicate whether he/she habitually uses DSE as a significant part of normal work. In a construction setting, the user will normally be found as a personal secretary in a head or site office environment, in a secretarial pool, as a data input operator, or using computer-aided design equipment in a design office.

Risk Assessment

The Regulations require a Risk Assessment (analysis) of all workstations used by 'users' as defined, or by 'operators' who are essentially self-employed 'users'. If the workstation is modified or changed in any way, the Risk Assessment must be reviewed. In all circumstances, the risk identified by the assessment, or by a review, must be reduced to the lowest extent reasonably practicable. A workstation comprises the display screen, keyboard or other inputting device such as a mouse, optical accessories to the screen equipment, disk drive, telephone, modem, printer, document holder, work chair, work desk, work surface and the immediate work environment.

A detailed schedule to the Regulations sets out the minimum requirements for workstations. It covers the essential characteristics of the workstation itself and environmental conditions including space, lighting, reflection, glare, noise, heat, radiation and humidity. It incorporates a number of principles on designing, selecting, commissioning and modifying software and in designing tasks using DSE.

Workstation assessments will be conducted by Winchmore Brickwork Managers where workstations are constructed and on a frequent basis thereafter. A workstation assessment questionnaire is included within Section Three of this Health and Safety Policy for this purpose. This will assess any risks associated with the use of furniture and equipment, the visual environment and general safety of the user.

This assessment may provide valuable evidence in the event of upper limb disorders or any other health problems arising in the future. All employees are actively encouraged to provide feedback to Winchmore Brickwork Managers on their working environment.

Information and Training

The DSE Regulations require training and information to be given to users and operators. The purpose of training is to increase the users competence to use workstation equipment safely, adding to the general health and safety training that they should have already received. Further training should be given if the workstation, software, environment or job is modified. The curriculum should include hazard recognition, nature of risk to the musculoskeletal system (in particular risks leading to fatigue and pain) and the essentials of remedial action. Users should understand how to adjust furniture and equipment and deploy workstation components so as to achieve correct posture and reduce stress.

They should also understand the need to regularly clean and inspect equipment and the importance of making use of breaks and changes of activity.

Specific information on hazards associated with DSE must be given to users and operators in parallel with the requirements of the training curriculum. An emphasis should be placed on the application of ergonomic principles in design, selection and installation of DSE so as to reduce bodily fatigue, stress and temporarily impaired vision.

Sight tests

Employers must provide eyesight tests to Employees who are DSE 'users' if they request them. In effect, this means a "sight test" as defined in the Opticians Act and includes a test of vision and an examination of the eye. Users who request sight tests should be offered an examination by a registered ophthalmic optician (optometrist) or a registered medical practitioner. Although entitled to do so, a medical practitioner will not normally carry out such tests unless he has an ophthalmic qualification. Some companies rely on vision screening tests to identify individuals with defective vision. These are not designed to identify eye disease in the same way as a full sight test and employers must provide sight tests if users request them. If the tests indicate a possibility of eye injury or disease, the user will be referred for ophthalmologic examination, which is free under the NHS.

If the sight tests indicate that a 'user' needs 'special corrective appliances' (spectacles), as distinct from their normal spectacles, to overcome vision defects at the specific viewing distances recommended by the guidance to the Regulations, they must be provided by the employer free of charge. However, he is only obliged to provide basic spectacles, which are adequate for the purpose. If users choose more expensive spectacles, they must pay the difference in cost between the basic ones and those of their choice. If a user's normal corrective spectacles are adequate for safe use at their DSE, the employer is not responsible for the provision of additional spectacles.

Part Three – Construction Procedures

2.3.1 Abrasive Wheels

All grinding machines whether permanently installed or of the portable type, must comply with *The Provision and Use of Work Equipment Regulations 1998*. The use of abrasive wheels must be the subject of Risk Assessment, to ensure that any risk to safety or health is reduced to an acceptable level. And must only be used for tasks and under conditions for which they are suitable.

Abrasive wheels are at risk of bursting if they are operated outside the specified maximum rotation speed. In order to avoid bursting the correct wheel must be used with regard to its type, size and speed.

Every abrasive wheel, which is large enough, must be clearly marked with its maximum rotation speed. If the wheel is too small to be marked in this way, there should be a notice fixed in the workroom, giving the individual or class maximum permissible rotation speed. The machine must also be clearly marked with the (RPM) of the power-driven spindle. Lower speed rated wheels must not be mounted on a faster speed rated spindle and the spindle should be governed so that it cannot overspeed. .

Workers who use abrasive wheels must be provided with adequate information, instructions and training in their correct handling and mounting (including pre-mounting and storage procedures). The person must be appointed in writing and be certificated as proof of training. A copy of the certificate must be given to the trainee and one kept available for inspection in the workplace. If the person is or will be regularly employed by the Company, a copy of the certificate should be sent to the Head Office 'Safety Training File'.

Even if all the above precautions to prevent bursting are taken, abrasive wheels must also be provided with guarding capable of containing any flying fragments of the wheel should bursting occur, to avoid them inflicting injury on any person. The guards have the additional role of preventing injury by limiting contact with any dangerous parts of the equipment.

When operating an Abrasive Wheel machine ensure that other persons are not put at any risk. Operate abrasive wheel machines away from other persons where possible, or adequately shield off possible danger areas. Do not use them in accessways, near doorways or in a 'No Naked Flame' area. Take dust control measures if required.

Personal Protective Equipment Regulations 1992

Persons operating an Abrasive Wheel machine must wear the recommended form of protection, as determined by the Risk Assessment and depending upon the circumstances, box goggles or face-shield to (BS EN 166,167 & 168) Grade 1 impact.

Aside the wearing of goggles/face-shields, operators of Abrasive Wheel machines should wear safety footwear, gloves, overalls and dust masks. If noise levels exceed the permissible levels set in the *Noise At Work Regulations 1989*, ear protection will be required.

2.3.2 Asbestos Policy

The objective of this Policy is to prevent any harmful asbestos exposure to Employees and any other persons who could be affected by the Company operations where asbestos is present. The Company has a duty not only to Employees, but also to the Client's Employees, other Contractors Employees, occupiers of the site being worked on, visitors, neighbours and any other persons who could be affected by operations, which involve disturbing or working with asbestos.

Introduction

It is well known that exposure to asbestos dust can result in asbestosis, a disease of the lungs due to the inhalation of asbestos particles. Lung Cancer, Mesothelioma Cancer and Laryngeal Cancer are other diseases that can be suffered from after contact with asbestos dust.

The three main types of asbestos used/found are:-

- a) CHRYSOTILE commonly known as 'white' asbestos.
- b) CROCIDOLITE commonly known as 'blue' asbestos.
- c) AMOSITE and MYSORITE commonly known as 'brown' asbestos.

NOTE:- Colour must not be relied upon for positive identification.

Crocidolite 'blue', Amosite and Mysorite 'brown' asbestos are prohibited in the manufacture of new materials under *The Asbestos (Prohibitions) Regulations 1992*, but is still to be found in many old buildings and plant prior to 1978.

Please note that there can be no guarantee that 'blue' and 'brown' asbestos will not be found in more recent applications.

If asbestos is found or suspected at the workplace where it is likely to be disturbed, then it must be analysed. This will determine the type of asbestos present. Once the type of asbestos has been determined, all necessary precautionary arrangements can be made.

Asbestos can be found blended with cement and similar materials. It has been widely used as building materials such as roof sheets and pipes. In combination with calcium silicate and magnesia, it forms a thermal insulation material for boilers, steam pipes and similar applications. Asbestos-based compounds have in the past been applied by spray techniques to provide fire-resistance to walls and ceilings.

Only properly trained and competent persons are allowed to disturb or work with asbestos. Companies must be Licensed Contractors when working with 'Brown' - Amosite or Mysorite, or 'Blue' - Crocidolite asbestos.

Compliance with Safety Standards

Works in connection with Asbestos must be carried out in accordance with all current Asbestos Regulations, Approved Codes of Practices and British Standards (see Asbestos References overleaf for details).

The Company's Management have the responsibility to ensure that all persons are protected from harmful asbestos exposure. All Company Employees are required to be made aware of all necessary precautionary measures and controls related to work, which may disturb asbestos. It is the duty of Company Management to ensure that Employees, who may be required to work in areas where asbestos could

be present, receive Safety Awareness Training for asbestos. Prior to a Contract starting where asbestos is present, Company Employees must receive Safety Induction specific to the asbestos precautionary measures and controls necessary for site operations.

This would include Client's asbestos procedures and documentation, i.e., Policy's, Survey Reports, Drawings and instant notification procedures. Induction will also include details of the Risk Assessment and Safe Method of Work Statement for asbestos related works specific to the Contract. Prior to a Project starting, Company Managers should check that all Client requirements would be complied with regarding asbestos procedures for precautionary measures and controls that the Company has to comply with.

Information required from Clients

The Project Manager should ensure that all necessary information regarding asbestos is obtained from the Client prior to work being carried out which could give rise to harmful asbestos exposure, i.e., Client's Asbestos Policy, Asbestos Surveys and Reports, Drawings showing where asbestos is present and Incident Records, etc.

The Project Manager should also set a monitoring procedure to ensure that all asbestos precautionary measures and controls are complied with.

Vetting Licensed Contractors

Company Managers involved in Projects which could involve harmful asbestos exposure are required to check that Licensed Contractors safety arrangements are in order, i.e., their License details, the training records of Employees carrying out the work on site, the service records of equipment that will be used on site, particularly the function tests and that equipment that will be supplied to site will be clean and free from asbestos contamination, waste arrangements and records and their past accidental asbestos exposure incidents records.

Emergency arrangements for Employees

In the event of an asbestos incident where asbestos is suspected to be present in a location where it has not been identified, or asbestos exposure may have occurred, or non-compliance with asbestos controls etc. need to be reported, the Site Manager must be informed immediately for further advice and to ensure full compliance with any Client's emergency procedures.

For further guidance on action to be taken in the event of asbestos being found or suspected contact the Company Safety Officer immediately and do not disturb the material.

Asbestos References

Legislation

The Health and Safety At Work Etc., Act 1974.

The Control of Pollution Act 1974.

The Control of Pollution (Special Waste) Regulations 1996.

The Asbestos (Licensing) Regulations 1983.

The Asbestos (Prohibitions) Regulations 1992.

The Control of Asbestos at Work Regulations 1987 and Approved Code of Practice, 3rd Edition.

The Control of Asbestos At Work (Amendment) Regulations 1992.

Approved Code of Practice: Work with Asbestos Insulation, Asbestos coating and Asbestos Insulating Board (3rd Edition).

The Personal Protective Equipment (EC Directive) Regulations 1992.

HSE Guidance Booklets

HS (G) 53	Respiratory protective equipment - a practical guide for users (2nd Edition 1991).
L1 1	A Guide to the Asbestos (Licensing) Regulations 1983.
L27	The Control of Asbestos At Work.
L28	Work with asbestos insulation, asbestos coating and asbestos insulating board.

2.3.3 Control Of Substances Hazardous To Health

The Company has a duty of care to their Employees and others when their operations involve the use of substances that could be hazardous to health. Management have a responsibility to carry out a COSHH, Assessment for substances that could be hazardous to health and to have in place a management system for checking that the control measures required are in order. The *Control of Substances Hazardous to Health Regulations 1999* defines in general and specific terms how the Company is expected to safely manage the use of potentially harmful substances. The Regulations are structured to describe a management strategy.

- a) Assess the hazards and risks to health.
- b) Implement a control programme.
- c) Ensure that controls are being used properly and maintained.
- d) Where necessary, monitor the control measures.
- e) Where necessary, measure workers exposure.
- f) Where necessary, carry out medical surveillance.
- g) Inform, instruct and train persons likely to be affected about the risks and precautions.
- h) The keeping of records.
- i) All suppliers and Sub-Contractors must provide full COSHH information on any hazards associated with equipment or materials supplied to the Company. This information must be passed to the relevant supervision for assessment before potentially hazardous equipment and materials are used. The Procurement department are responsible for vetting materials and substances to be used.
- j) The Winchmore Brickwork office, product data sheets and the COSHH files are to be kept in order (up-to-date) by Paul Campbell.
- k) A stock of or individually issued protective clothing and safety equipment are to be provided when and where required.
- l) Materials and equipment delivered to the Company premises or work areas are/is to be stacked and stored in a manner which does not create a hazard.

2.3.4 Fire Precautions On Site

The objective of fire precautions is the protection of life, avoidance of damage to property, plant and processes from fire. Fires should only be tackled providing there is no risk of danger to yourself.

Common causes of fire are:

- a) Malicious ignition (including by children).
- b) Carelessness in smoking or with lighted matches.
- c) Faulty or misused heating equipment.
- d) Incorrect storage and careless use of flammable liquids.
- e) Electrical faults.
- f) Uncontrolled rubbish burning.
- g) Careless use of cutting/welding equipment.

All site works are to have established, prior to the commencement of works, the following arrangements:

- a) Means to detect and give warning of fire (fire alarm).
- b) An effective evacuation plan – fire drills should be established and performed on a regular basis.
- c) Adequate means of escape and the displaying of emergency fire exit signs and lighting where appropriate.
- d) How to use fire-fighting equipment (fire alarms/extinguishers etc.).
- e) Effective communications with the emergency services (obtain an outside line) and telephone 999 and ask for the Fire Brigade and the Ambulance Service if someone has been injured. The emergency services should be contacted as soon as possible in the event of a fire occurring.
- f) A fire plan of the premises (display in areas where emergency exits may not be obvious, or where alternative emergency exits could be an advantage).
- g) All persons are required to sign in and out of the premises. A register for Employees and a visitors book for visitors.
- h) All persons at risk must be able to evacuate areas, which could be affected by a fire, immediately.

Fire Check List

- a) Fire Exit, Stairs, Corridors, Access ways and Entrances must be kept free from obstruction and of items that could give rise to a fire.
- b) The storage of materials/gases and chemicals etc., must be kept in a proper manner in accordance with Regulations and Codes of Practices.
- c) Adequate fire fighting equipment should be made available. Appropriate fire extinguishers etc., should be located where required in well signed fire point areas.
- d) Fire fighting equipment must be kept in the correct location and maintained in good working order and regularly checked by a competent person.
- e) Internal fire doors must be kept closed to prevent the spread of fire and smoke.
- f) Fire signs must be displayed where required.

- g) Fire plans must be displayed in appropriate places in the premises.
- h) All equipment that could give potential rise to a fire should be properly installed and maintained, e.g., Boilers, Heaters, Cookers, and Electrical Equipment etc.
- i) Waste should not be allowed to accumulate in Offices, Workshops, Warehouse, Yard and Store areas.
- j) Are separate metal waste containers supplied for each of the following? Oily rags, paint rags, paint scrapings, waste flammable liquids and off-cuts.

2.3.5 General Public Safety

The general public is defined for the purpose of this Policy as any person who is not employed by the Company, e.g:

- a) Employees of neighbouring businesses;
- b) Visitors to Company and neighbouring business premises;
- c) Pedestrians and road users;
- d) Any persons who could be affected by Company activities on site locations.

General public areas must be kept free from any unsafe obstructions and activities that could be a hazard e.g. re-texturing of granite paving slabs using oxy-acetylene torches. Where general public areas have to be guarded-off due to the nature of work, all necessary temporary safeguards must be provided and adequate control measures put in place. Areas of possible danger to the general public, must be safely guarded-off and appropriate warning notices displayed. Those that could be affected by the works must be notified in advance wherever possible so that where necessary, their normal safety arrangements can accommodate additional safety provisions necessary for the safe use of temporary works.

When pavements could be affected by the works all appropriate signs and guards must be displayed. Temporary walkways for pedestrians must be at a safe distance from the work. The walkways should be defined with red and white continuous rigid guard-rails and toeboards or hoarding. Where temporary pedestrian walkways have to be located in roads, red and white secured road timbers should be used instead of toeboards and all appropriate road signs/lights and cones must be displayed. Where pavements are required for closure, the Company's Safety Consultants and the Local Highways Department/Local Council must be informed so that all appropriate precautions and controls are taken. Note: Pavements are used by mothers pushing prams, children, blind and disabled persons as well as ordinary pedestrians and they must all be considered when diverting/closing pavements.

Trespassers safety must also be considered so they are protected from danger. There is a particularly strong liability towards children who may be 'attracted' onto Company premises or site works after working hours. The precautions to exclude children depend on circumstances. If it is reasonably foreseeable that a child might gain access, the precautions, which have been taken, are not sufficient.

Every reasonable precaution must be taken to keep trespassers out of Company premises and sites. Considerations must be given to safeguard trespassers should they gain entry, e.g., Guard dogs must be under control. Machinery, plant and equipment should be left immobilised (disconnected/locked off) and in a safe condition.

The Company has a responsibility not to jeopardise any person's safety. This covers not only Company Employees, but also the Client's Employees, Sub-Contractor's Employees, Visitors and persons making deliveries, etc.

Where third parties or visitors are allowed onto Company Premises or site locations, they should be made aware of safety standards and any special hazards. They should be accompanied by a responsible person and provided with protective clothing/equipment where appropriate.

Site working areas must be suitably guarded/cordoned-off and appropriate safety signs displayed, particularly scaffold working platforms where the protection preventing persons from falling has been temporarily affected, at the base areas where hoists are being erected, areas where persons could be struck by hoist platforms and areas of potential fall of materials, etc.

2.3.6 Hand/Arm Vibration

The use of various types of hand-held tools, in particular those, which are have a rotary or percussive nature, are a serious cause of growing concern. The regular and prolonged use of such tools can cause the users to suffer various forms of damage, a condition known as 'hand-arm vibration syndrome' (HAVS). The most common form of which is the damage caused by vibration white finger (VWF), or Reynards Syndrome.

People who are regularly exposed to high vibration can have conditions such as 'dead finger' or 'dead hand' which is caused by damage to the blood vessels or blood supply. Damage to nerves of the finger causing permanent loss of feeling and other damage to muscles and bone may also contribute to pain and stiffness in the hands and wrists.

Whole body vibration can also cause damage to the spine or vertebrae after long exposure. Symptoms of vibration white finger are usually set off by the cold, with early indications of the fingertips rapidly becoming pale and loss of feeling. These attacks can produce numbness and 'pins and needles'. This phase is followed by an intense red flush (sometimes preceded by a dusky bluish phase) signaling the return of blood circulation to the fingers and is usually accompanied by an uncomfortable throbbing. Continued work will see the affected area becoming larger.

The Legislation covering the use of hand held tools are The Management of Health and Safety at Work Regulations 1999 (placing a requirement on every employer to make a suitable and sufficient assessment of every work activity), The Provision and Use of Work Equipment Regulations 1998 (requiring that an employer only supplies work equipment that is correct and suitable for the job and ensures that the equipment is maintained and kept in good working order) and The Personal Protective Equipment Regulations 1992 (in that they require an employer to make an assessment of the workplace in an attempt to decide which, if any, personal protective equipment should be issued).

Hazards of exposure to hand-arm vibration

All work tasks, including those involving vibration, should be taken into account during a risk assessment required under the Management of Health and Safety at Work Regulations 1999. Various tools and operations within the construction industry can expose personnel to hazards from vibrations such as:

- Road and concrete breaking
- concrete vibro thickeners
- chisels (air or electric)
- compressor guns
- pneumatic drills
- angle grinders
- cut-off wheels
- chainsaws
- woodworking machinery.

The risk of their causing vibration-related injury depends on a number of issues:

- the amount of vibration
- how long the equipment is used and the conditions of use
- the posture of the operative
- the temperature at which work is carried out

Each of these will have impact on the long-term effects including bone and muscle damage.

Strategy for reducing vibration

From the outset, risk assessments of all work tasks should be carried out, during which the following issues should be addressed:

- Can the job can be done without using high vibration tools? If this is not possible, is it feasible to reduce the vibration levels of the tools to be used?
- Ensuring that any new tools have vibration controls built in. All tools, whether supplied new or secondhand, should be safe to use and handle in compliance with the requirements of the Provision and Use of Work Equipment Regulations 1998 and relevant British Standards.
- Arranging for operatives to stay warm by providing heating for the workplace and, where possible, suitable clothing and gloves employers will reduce the effect of cold on the operatives' hands and other parts of the body and help them to identify the symptoms of vibration-induced diseases more quickly.

When selecting and purchasing power tools and equipment, consideration will be given to procurement of equipment, which is the least harmful in terms of vibration, generated. The supplier or manufacturer must be requested to supply information on hazardous vibrations associated with the equipment and Site Management must be supplied with this information.

In addition, the recognition of HAVS symptoms is imperative. By training operatives in the correct use of vibrating tools, they will be helped to recognise the vibration symptoms and the need to report them to the supervisor and subsequently to the HSE under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995.

Preventive measures

Where there is a significant risk of injury from vibration exposure due to the regular and prolonged use of work equipment, a preventive programme for operatives and supervisors will be implemented by the company.

All Winchmore Brickwork Limited Operatives will be required to complete the Company Medical Questionnaire (MED1) within the Appendices section of this Policy. Any person who is confirmed as suffering from HAVS, or has initiated a related DSS Claim must not be permitted to use power tools, which have damaging frequencies.

Individuals will be required by Site Management to report signs of HAVS immediately to their Site Supervisors (blanching of the fingers and numbness) who in turn will report the condition through to the Head Office Personnel and Safety Advisors.

On an annual basis, Operatives will be required to complete the Surveillance Questionnaire (MED2).

In the interim, the nature of the risk, any signs of injury and why these signs of injury should be reported, either to a Supervisor or Winchmore Brickwork Manager who will arrange for them to be investigated.

Day-to-Day action taken by the employees to minimise the risk of injury or ill health should include:

- the use of working practices which are designed to minimise vibration being directed to the hands, thereby maintaining a good blood circulation to the affected areas;
- making sure tools are properly maintained and promptly reporting defects and problems with the equipment to their supervisors and obtaining replacements where necessary.

Keeping the hands and body warm is essential to help maintain good blood flow to the fingers and reduce the risk of injury. Specific measures might include:

- wearing anti-vibration gloves
- using proprietary heating pads for the hands
- using tools with heated handles
- avoiding pneumatic exhausts which discharge towards the hands
- allowing operatives to warm up before starting work, and helping them to stay warm
- wearing warm, weatherproof clothing for cold wet areas
- avoiding or cutting down smoking (smoking reduces blood circulation), and massaging and exercising fingers during work breaks.

An important factor in preventing hand-arm vibration syndrome is by reducing the time which operatives are actually exposed to vibration. In a team of employees, if the use of a vibrating tool is shared between them, as opposed to it only being used by one person all day then the tool can be kept in use for the full day. By phasing the work in this way and by rotating such personnel not operating the tools at that time to other areas of work will considerably lessen the effects of vibration on the actual user and assist the maintenance of blood circulation thus lessening the chances of injury or ill health effects being caused by the use of the vibrating tool.

Legislation & References

The Health and Safety at Work Act 1974

The Social Security (Industrial Injuries) (Prescribed Diseases) Regulations 1985 (as amended)

The Management of Health and Safety at Work Regulations 1999 (as amended)

The Personal Protective Equipment at Work Regulations 1992

The Supply of Machinery (Safety) Regulations 1992

The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995

The Provision and Use of Work Equipment Regulations 1998

HSE publications

HS(G)88 Hand-arm vibration

HS(G)170 Vibration solutions, practical ways to reduce the risk of hand-arm vibration injuries

INDG 175 Health risks from hand-arm vibration (advice for employers)

MISC 112 Reducing the risk of hand-arm vibration injury among stonemasons

British Standards

BS 6842 Guide to measurement and evaluation of human exposure to vibration transmitted to the hand.

2.3.7 Ladder Safety

Ladder misuse is the cause of many accidents. Ladders must be properly maintained and used only after careful assessment of the risks involved. In particular, a ladder should not be used as a place of work unless the work is of short duration and is such that it is within easy reach and can be carried out with one hand, the other hand being on the ladder for support. Ladders may only be used where a safety item of access equipment cannot be used and is identified by risk assessment.

Portable ladders

Ladders should be erected on a firm level base and the ladder supported by the stiles only. On sloping or uneven surfaces an adjustable safety foot can be used to ensure equal support; loose packing should not be used. The use of non-slip pads, caps or sleeves is recommended, especially on slippery floor surfaces. The head of the ladder should rest on a firm, solid surface. A ladder stay can be used where the support may otherwise be unsuitable, such as at a plastic gutter. The correct slope for a ladder is an angle of about 75° to the horizontal, i.e. one meter out for every four meters of height.

All ladders between places of work must be secured against slipping and all ladders must be secured, where possible, near the top. This is normally achieved by lashing or clamping each stile to a convenient secure anchorage. In certain cases the use of spreader arms attached to the top of the ladder may satisfy this requirement to secure, but it must first be established that the ladder, so fitted, cannot slip in the circumstances in which it is to be used.

Where a ladder cannot be secured at the top, it must be secured near its base by means of guy ropes secured between stiles and stakes embedded into the ground or to other suitable anchorages. If possible, the feet of the ladder should be heeled in. If no other means of securing the ladder, to prevent slipping, can be used, then someone must hold it at the base whilst it is in use. This is only effective with short ladders.

On long ladders an intermediate tie rope is necessary to prevent swaying. In use, a ladder should be placed so that there is space behind each rung for proper foothold. Rungs should be clear of grease, oil or other slippery substance. Only one person should be permitted on a ladder at any one time.

Classification

Timber and aluminium ladders are divided into three classes:--

- *Class 1*, the heaviest duty, is suitable for construction work where the ladder is subject to substantial loads.
- *Class 2* is intended for lighter trades, such as decorating, where relatively low loads are involved.
- *Class 3* is for light, e.g. domestic use. (Not to be used in a place of work)

Class 1 and Class 3 ladders are covered by BS 1129 and BS 2037; Class 2 ladders by BS EN 131. It is important that the correct class of ladder is selected, choice being determined by the type of work to be carried out and the likely load to be imposed.

Timber and Metal ladders

Damage to timber ladders may be caused without leaving any visible sign of that damage - great care must be exercised in handling timber ladders so that they are not overloaded or dropped from a height. Correct storage is necessary so that ladders do not warp or the rungs become loose.

Ladders should be erected with the wire tie rods beneath the rungs, and wire stile reinforcement on the underside of the stile. Metal ladders and timber ladders with metal stile reinforcement should not be used where any electrical hazard exists.

Suspended ladders

When ladders are suspended they should be lashed at top and bottom so that they are equally supported on each stile. Long ladders will need additional ties in the length to prevent movement.

Ladder towers

Ladders used for gaining access will normally be timber pole ladders and should be erected in parallel rather than zigzag pattern where more than one ladder is used.

Extension ladders

When using an extension ladder the overlap of any two adjacent sections should be as follows:

Closed length of ladder less than 5m	1-½ rungs
Closed length of ladder between 5m-6m	2-½ rungs
Closed length of ladder over 6m	3-½ rungs

Access to and from ladders

All ladders must extend above any landing place, or beyond the highest rung from which a man may be working, to ensure adequate handhold. A distance of 1.05m (5 rungs) is recommended. If this is not possible, then a nearby adequate handhold must be provided. Suitable access to a working place must be provided at the stepping-off point. Persons should not be required to climb over or under guardrails or over toeboards. Gaps in guardrails and toeboards must, however, be kept as small as possible.

Where ladders rise more than 9m in vertical height, an intermediate landing place must be provided. Landing places must be fitted with a main guardrail at least 950mm above the platform and an intermediate guardrail (or other effective barrier) so that there is not an unprotected gap of more than 470mm in height. Where materials are stored on a landing place, toeboards, at least 150mm high, must also be fitted. Wherever ladders pass through platforms, the openings should be no longer than is reasonably practicable and no more than 500mm in width, leaving sufficient platform width for access.

Inspection of ladders

Timber ladders must not be painted as the paint hides defects. Coating with a preservative and clear varnish is permitted. All ladders should be inspected frequently and the following points should be checked:

1. timber ladders for splits or cracks, splintering, warping or bruising. Metal ladders for mechanical damage,
2. rungs for signs of undue wear or movement. No rungs should be missing,
3. wedges and tie rods for tightness. Metal reinforcement to stiles for correct position,
4. feet for splitting and fraying. Timber or plastic inserts to metal ladders for wear and correct position,
5. ropes for wear, fittings for security and pulleys for freedom.

If a ladder cannot be properly repaired, it must be scrapped.

2.3.8 Material And Passenger Hoists

Competent trained persons who hold a relevant Hoist Operators Training Certificate, being specific to the hoist used, must only operate hoists.

Material Hoists should only be used for the carriage of materials/equipment/debris and should never be used to carry personnel. Passenger Hoists can be used for the carriage of persons and materials etc.

All hoists should be erected by competent qualified personnel and should be tested before use to ensure that it is in good order. A thorough examination certificate must be issued after the hoist has been erected and tested.

From the date of erection of a hoist, weekly inspections must be carried out by a competent person i.e., the hoist operator or the hoist erectors and their findings entered into the Register. These arrangements need to be clarified with the Client.

Any defects found in the hoist should be reported to Management immediately. Hoists in unsafe order must not be used and the power must be turned off. 'Out of Order - Do Not Use' signs must be displayed.

The safe working load should always be displayed on the hoist and the hoist gates as well as 'Keep gates closed' and 'No riding on hoists' (for material hoists).

Passenger hoists should be fitted with devices preventing the platform from moving if the safety gates are not properly closed. Over-run devices should be fitted to the tops of the hoist masts to prevent over-run of the hoist platforms.

The ground floor area of all hoists must be guarded off with at least 2 metre high guards so that it prevents persons from venturing into danger areas of the hoist platform.

If materials are not fully enclosed by a hoist platform cage, it will be necessary to completely enclose the hoistway with suitable steel or wire mesh throughout its height to prevent materials etc., falling and endangering persons who may be nearby. Gates must be fitted at all levels where access is required.

Hoist masts must be adequately tied (secured) in position. Scaffold structures must also be adequately secured.

Hoists should only be capable of being operated from one position in which the operator has an unobstructed view of all landings.

Hoist landing should be numbered and the hoist marked up so that guidance is given to the operator to ensure the hoist cart is at the required level to suit landings. Ensure that landings are fully boarded. Protection preventing materials from falling from the landing must be fitted. Landings should be kept free from any unsafe obstructions. Adequate lighting should be provided for landings and ground floor areas.

Hoist operators should not leave a hoist unattended when switched on. The hoist must always be locked off and the hoist platform positioned at the bottom of the hoist tower when left unattended.

2.3.9 Manual Handling

The duties imposed by the *Manual Handling Operations Regulations 1999* are as follows:

- a) Avoid hazardous manual handling operations where reasonably practicable
- b) Risk assess any hazardous operations that are unavoidable
- c) Reduce the risk of injury as far as is reasonably practicable
- d) Provide adequate and appropriate information, instruction, training & supervision.
- e) Monitor and review

Manual handling injuries include:

- a) Strains and sprains - muscles and joints can be injured by over-exertion.
- b) Fractures - dropping a heavy load onto the feet can break bones.

- c) Wounds - from handling objects with sharp edges and rough surfaces.
- d) Hernias - the strain of lifting can cause painful ruptures in the abdominal wall.
- e) Spinal injuries - damage to the vertebrae and the spinal discs can cause permanent disability

It is the Company's policy to prevent injury and ill health to the workforce engaged in manual handling and it is important that management and Employees take reasonably practicable precautions to prevent manual handling injuries from occurring.

Management are to check before they instruct persons to carry out manual handling whether those persons suffer from any pre-existing back problems or there are any other factors that could make them significantly more prone to sustaining a manual handling injury. They are to assess the loads required to be lifted and where reasonably practicable, provide mechanical aids and/or take other steps to eliminate or adequately reduce the risk of manual handling injury.

Employees must be fit for the purpose: It is the Company's policy not to engage Employees with existing back problems or having other personal factors which could make them significantly more prone to sustaining a manual handling injury, to carry out manual handling duties.

The following personal factors of a manual handler may contribute to the risk of a manual handling injury:

- a) size.
- b) weight.
- c) age.
- d) physique.
- e) state of health.
- f) training in manual handling.

Manual Handling Injuries

Employees are to notify their Managers immediately should they suffer acute injury or develop health problems related to manual handling operations, or if they feel that the loads required for lifting manually are too heavy for them to lift safely.

2.3.10 Power Tools/Equipment & Plant

It is the responsibility of the Project Management team to provide the right kind of tools and equipment for the job and to see that they are properly used. Information concerning the safe use of tools should always be requested from the manufacturers/suppliers who by law are required to provide such information. Tools should be regularly checked on issue from and on return to the store

You should only operate equipment for which you have been thoroughly trained. Use the correct tools and equipment for the job. Ensure that equipment supplied to you is accompanied with the operator's instructions and check that the equipment is safe and fully efficient. Equipment should be guarded and equipped with safety devices where required and tested in accordance with all the current Regulations. Defects in equipment and tools should be reported immediately to your Superior.

Do not use unsafe defective equipment until it has been put back in good safe condition. Do not attempt to repair or maintain equipment unless you have been properly trained to do so, particularly when it may involve the removal of safety guards or live electric's. Ensure that guard protection is always in place where required. Ensure the working environment meets the safety requirements for operating the type of equipment and tools you require to use, i.e., adequate space and lighting etc.

Pneumatic Tools

Compressed air is delivered at high pressure. If it enters the body it can rupture internal organs and cause death. Any form of horseplay or misuse should be expressly forbidden. Guidelines within HS (G) 170 Vibration solutions, practical ways to reduce the risk of hand-arm vibration injuries will be adopted where the use of pneumatic tools is required.

Compressors

Should always be under the supervision of a competent person who should be responsible for ensuring that the machine is kept in good order, i.e., making sure that feed belt and pulley drives are guarded, that hoses and couplings are maintained in good order and that regular checks are made to ensure that oil feed to the airline is properly topped up. Air receivers must be marked with a safe working pressure and distinguishing number. They must also be fitted with safety valves, pressure gauge, drain cock and manhole. Hose connections must be properly clamped - it can be dangerous to have loose or over-tightened connections. Air receivers must be cleaned and thoroughly examined at least every 26 months.

Cartridge Operated Tools

Should only be used by properly trained and certificated persons over the age of 18 years. Supervised test runs are always advisable before the method of using cartridge operated tools are put into general practice on site. When operating cartridge tools, operators should wear head, ear and eye protection. Major hazards in using cartridge tools apart from malevolent firing are as follows:

- a) Where material is of a soft nature, the fastener can puncture and emerge from the other side like a bullet.
- b) Where the material is brittle or of uneven constituency, the fixing device may turn back on itself and injure the operator.
- c) The material may splinter at the point of impact.
- d) Recoil, which can throw the operator off balance.
- e) Excessive noise levels in certain circumstances, for example, confined spaces.

2.3.11 Protective Clothing And Equipment

All personnel must wear/use protective clothing and equipment where and when required, e.g.: Safety footwear, gloves, goggles, waterproofs, earmuffs/plugs, high visibility clothing and masks, must be worn where relevant.

Safety harnesses, lifelines, gas detectors, emergency breathing apparatus, underground service detectors, should always be used where and when required.

All site personnel are required to wear all appropriate clothing and equipment when and where required.

- Safety Helmets are to be worn whenever there is a likelihood of head injury from either falling/flying objects or head strikes against fixed objects.
- Safety Footwear - appropriate footwear will be worn for respective trades. Trainers and lightweight shoes are not permitted.
- Gloves - appropriate gloves will be worn for respective trades particularly when demolition works are concerned so that hands are protected from cuts and abrasions so that it prevents the likelihood of catching Leptospirosis Jaundice from rats urine.
- Overalls - appropriate overalls are to be worn for respective trades when and where required. Overalls are to be cleaned when necessary if they are not of the disposable type.
- Eye Protection will be worn whenever there is a likelihood of eye injury.
- Masks of the appropriate type will be worn when and where required.
- Ear Protection will be worn when noise levels are above 90 db (A).

Further guidelines with regards to the wearing of protective clothing and equipment will be read before using substances and materials of a hazardous nature. This information will be contained in the COSHH Safety Data Sheets. COSHH Assessment Sheets will be supplied to the site before the materials are used.

The Construction (Head Protection) Regulations 1989 requiring the wearing of safety helmets on construction sites came into force on 30th March, 1990. From that date (with one notable exception), it will be an offence for persons not to wear a safety helmet at any place on site where there is a foreseeable risk of head injury (other than by falling). The Regulations apply to all building operations and works of engineering construction and the extent of length of the work is not a determining factor.

It is the Company's policy that on all sites, Employees, all Sub-Contractors Employees, all visitors and suppliers, must wear safety helmets. The wearing of safety helmets is mandatory throughout the site, with only the following exception: Inside site offices and huts as long as no works are being conducted in those areas or within the immediate confines of these areas.

2.3.12 Scaffolding

The Work at Height Regulations 2005 detail within Schedule Two the requirements for scaffolding, as such:

From a technical point of view scaffold structures must be in compliance with The CDM Regulations 2007, The Provision and Use of Work Equipment Regulations 1998, The Lifting Operations and Lifting Equipment Regulations 1998, The Work at Height Regulations 2005, The Approved Codes of Practices and all appropriate British Standards. Persons involved in providing, i.e., Designing, Planning, Managing, Erecting, Maintaining, Dismantling, Testing and Inspecting of scaffolding must do so in accordance with all appropriate Health and Safety Law and Codes of Practices etc.

Please Note: The CDM Regulations 2007. Trestles can no longer be used without guardrail and toeboard provision. These New Regulations supersede The Workplace Regulations.

Means of protection shall be of sufficient dimensions, of sufficient strength and rigidity for the purposes for which they are being used, and otherwise suitable, secured to prevent being accidentally displaced; and placed as to prevent, so far as is practicable, the fall of any person, or of any material or object, from any place of work.

In relation to work at height involved in construction work the top guard-rail or other similar means of protection shall be at least 950 millimetres or, in the case of such means of protection already fixed at the coming into force of these Regulations, at least 910 millimetres above the edge from which any person is liable to fall. Any intermediate guardrail or similar means of protection shall be positioned so that any gap between it and other means of protection does not exceed 470 millimetres.

Means of protection shall be removed only for the time and to the extent necessary to gain access or egress or for the performance of a particular task and shall be replaced as soon as practicable. The task shall not be performed while means of protection are removed unless effective compensatory safety measures are in place.

Strength and stability calculations for scaffolding shall be carried out unless a note of the calculations, covering the structural arrangements contemplated, is available; or it is assembled in conformity with a generally recognised standard configuration.

Depending on the complexity of the scaffolding selected, an assembly, use and dismantling plan shall be drawn up by a competent person. This may be in the form of a standard plan, supplemented by items relating to specific details of the scaffolding in question.

A copy of the plan, including any instructions it may contain, shall be kept available for the use of persons concerned in the assembly, use, dismantling or alteration of scaffolding until it has been dismantled.

While a scaffold is not available for use, including during its assembly, dismantling or alteration, it shall be marked with general warning signs in accordance with the Health and Safety (Safety Signs and Signals) Regulations 1996 and be suitably delineated by physical means preventing access to the danger zone.

Scaffolding may be assembled, dismantled or significantly altered only under the supervision of a competent person and by persons who have received appropriate and specific training in the operations envisaged which addresses specific risks which the operations may entail and precautions to be taken, and more particularly in:

- (i) understanding of the plan for the assembly, dismantling or alteration of the scaffolding concerned;
- (ii) safety during the assembly, dismantling or alteration of the scaffolding concerned;
- (iii) measures to prevent the risk of persons, materials or objects falling;
- (iv) safety measures in the event of changing weather conditions which could adversely affect the safety of the scaffolding concerned;
- (v) permissible loadings;
- (vi) any other risks which the assembly, dismantling or alteration of the scaffolding may entail.

Certification Scheme

Construction Skills operate a certification scheme for basic and advanced scaffolding courses and issue and control individual training record cards. Scaffolders are grouped into three categories, Trainee, Basic Scaffolders and Advanced Scaffolders and before Scaffolders can be classed as basic or advanced, they should have completed an appropriate course and have had specific minimum experience. Effective training of persons that provide a scaffold service is an essential factor in preventing accidents to Scaffolders, persons who use scaffolds and the general public who may be affected by a scaffold operations or work that will be carried out on the scaffold. The scheme applies, at present, only to Scaffolders who work on scaffolding more than 5m (16.5 ft) high.

Participation in this scheme is not a legal requirement, but the scheme should lead to a general raising of the level of expertise throughout the industry. It is important to note that the legal requirements relating to the training of workers in the Health and Safety At Work etc., Act 1974 and to the competence and experience of Scaffolders, apply to all scaffolding work.

This Code of Practice represents a standard of good practice. Compliance with it does not confer immunity from relevant legal requirements, including regulations and bylaws.

Scaffolding should only be erected/adjusted/dismantled by qualified competent Scaffolders. After scaffold has been erected/adjusted, the Scaffolders must issue a certificate of worthiness stating that the scaffolding is in good order. Any area of scaffolding which is not in good order, must be guarded off from areas required to be used and have 'Scaffolding incomplete - do not use' signs displayed on it. Scaffolding not in good order must not be used.

Inspections

Where it is possible for a person to fall from a working platform, the platform and associated parts need to be inspected by a competent person, before first use, after substantial alteration, after any event likely to have affected its stability, for example, following strong winds and at regular intervals not exceeding seven days. The person in control must have the inspections carried out by a competent person. Whoever controls the activities of others who use a scaffold also needs to ensure it is safe before they use it for the first time.

If the competent person is not satisfied that work can be carried out safely, they should advise the person for whom the inspection was carried out as soon as possible. The workplace should not be used until the defects have been put right. A written report should be made following most inspections.

All working platforms where it could be possible for material/equipment to fall must be fitted with toeboards to the outside edges and the ends of the platforms. The toeboard height should not be less than 0.150 metres. Working platforms must be a minimum width of 600 mm, be wide enough for required access, work, persons and materials. They must be adequate for the weight loadings to be imposed upon them.

Guardrails are required to be fitted to all working platforms, where the risk of a fall that may cause an injury exists.

All ladders must be secured into position preventing them from slipping/moving. The ideal angle for a ladder is 72 degrees. Safe opening must be provided in guardrails and toeboards for unobstructed ladder access. Ladders must extend at least 1.05

metres above the landing level for adequate handhold. Damaged ladders must not be used.

An efficient lighting system should provide adequate illumination for the work being done and illuminate passages and gangways. A general overall illumination of 250 lux is satisfactory, but people doing specialised work may need double this amount of light over their work; this applies especially to people over 50 years of age. To avoid glare, all lamps should be properly shielded or diffused. Particular attention should be paid to the positioning and shielding of local lights. Lighting should be installed in such a way as to avoid shadows.

Fluorescent lighting overcomes problems of glare and shadow, but can occasionally cause-rotating parts of machinery to appear stationary. The hazard resulting from this stroboscopic effect can be overcome by adjacent lamps being wired off different phases of the 3-phase supply or by using localised incandescent lamps.

NASC Guidance Note SG4:00

This guidance note applies to the erection, alteration and dismantling of basic tube and fitting steel scaffolds to the relevant British Standards, and provides practical advice on the duties placed on employers, employees and the self employed on how to carry out such work using fall arrest equipment.

As falls account for more than half of the fatal accidents in construction, Winchmore Brickwork Limited will follow the guidance given with SG4:00 as a minimum standard where erecting or dismantling scaffolds, and expect all sub-contractors appointed to comply with SG4:00 and train all operatives in its implementation.

References

Legislation

The Construction (Health, Safety & Welfare) Regulations 1996.
The Lifting Operations and Lifting Equipment Regulations 1998.
The Provision and Use of Work Equipment Regulations 1998
The Working at Height Regulations 2005
HSE Guidance Notes and Miscellaneous Information

GS 15 General access scaffolds.
GS 31 Safe use of ladders, stepladders and trestles.
GS 42 Tower scaffolds.
PM 30 Suspended access equipment.
HS (G) 19 Safety in working with power-operated mobile work platforms.
HS (G) 23 Safety at power-operated mast work platforms.
HS (G) 33 Safety in roofwork.
SG4: 00 The Use of Fall Arrest Equipment Whilst Erecting, Altering and Dismantling Scaffolding
RoSPA Technical pamphlet No. 4 scaffolding.
RoSPA Technical pamphlet No. 5 Timber for ladders and scaffolding boards.
Safety of scaffolding; Report of the sub-committee of the Joint Advisory Committee on Safety and Health in the Construction Industry (HMSO).
Practical Scaffolding (CITB).
Scaffolders and Users Guide to Safe Access Scaffolding (BEC).
Cradle riggers and users' guide to safe suspended platforms (BEC).

2.3.13 Site Machinery

It is the responsibility of Management to provide the right kind of tools, equipment/machines for the job and to see that Employees properly use them. Information concerning the safe use of machines and equipment should always be requested and obtained wherever possible from the manufacturers/suppliers who by law are required to provide such information. Machines and equipment should be checked on issue and regularly tested and inspected whilst in use in accordance with the Manufacturers/Suppliers Guidance. They should also be checked when being returned to the store. Details of the Law and Codes of Practices can be found in the Company's Library of Safety Information.

Main Requirements

- Persons required to operate tools/plant/equipment/machines etc., should only do so if they have been thoroughly trained on the safe use and the necessary precautionary measures to be taken.
- Use the correct tools and equipment for the job.
- Ensure that equipment supplied to you is accompanied with the operator's instructions.
- Check that the equipment is safe and fully efficient. The Company should maintain a record of checks and services.
- Equipment should be guarded and equipped with safety devices where required.
- Equipment should be tested in accordance with all applicable Regulations.
- Defects in equipment and tools should be reported immediately to your Superior.
- Tools/plant/equipment/machines should be used within their safe limitations.
- Do not use unsafe defective equipment until it has been put back in good safe condition.
- Any plant found not in good order must be taken out of service immediately, safely isolated and locked off. "Out of Order" signs/labels should be displayed on defective equipment until in good order.
- Do not attempt to repair or maintain equipment unless you have been properly trained to do so, particularly when it may involve the removal of safety guards or live electric's.
- Ensure that guard protection is always in place where required.
- Ensure the working environment meets the safety requirements for operating the type of equipment and tools you require to use, i.e., adequate space and lighting etc.
- Ensure when operating equipment, other persons that may be affected must be adequately safe-guarded/protected.
- All appropriate Personal Protective Equipment must be worn/used as and when required.

Plant layout

Machines should be sited with safety in mind, to the following general principles:

- a) Lay out machines in operational sequence.
- b) Provide a minimum of 1m backspace for the machine operator.
- c) Ensure that materials being processed do not interfere with operations on adjacent machines.
- d) Provide clear passageways.

e) Keep all materials not in use properly stacked and away from machines.

Take account of any special materials handling requirements.

The Provision and Use of Work Equipment Regulations 1998 cover many different aspects relating to the safety of equipment – below are some of the main issues:

Reg. 4	Suitability of Work Equipment	Reg. 18	Control systems
Reg. 5	Maintenance	Reg. 19	Isolation from sources of energy
Reg. 6	Inspection	Reg. 20	Stability
Reg. 7	Specific Risks	Reg. 21	Lighting
Reg. 8	Information and instructions	Reg. 22	Maintenance operations
Reg. 9	Training	Reg. 23	Markings
Reg. 10	Conformity with Community requirements	Reg. 24	Warnings
Reg. 11	Dangerous parts of Machinery	Reg. 25	Carrying Employees on mobile work equipment
Reg. 12	Protection against specific hazards	Reg. 26	Rolling over of mobile work equipment
Reg. 13	High or very low temperatures	Reg. 27	Over-turning of fork lift trucks
Reg. 14	Starting and modifying operation controls	Reg. 28	Self-propelled work equipment
Reg. 15	Stop controls	Reg. 29	Remote-controlled self-propelled work equipment
Reg. 16	Emergency stop controls	Reg. 30	Seizure and Safe-guarding of drive shafts
Reg. 17	Marking and safe positioning of controls	Reg. 37	Transitional Arrangements

Guarding – General Principles

Keep the hands of machinists as far as possible from cutting edges by:

- a) Using properly enclosed automatic feeding units wherever possible.
- b) Providing guards which enclose the cutters as far as possible.
- c) Providing wherever possible, jigs, holders, guides and push sticks.
- d) Guards should be robust and strong enough to contain flying cutters, securely fixed and easily adjustable; where necessary, by using manual methods of locking and release such as wing nuts, hand wheels and handles. Guards should also be maintained in good condition and capable of free movement to the limits of their adjustment.

Manufacturers Operators Manuals/Specification Information for machines, equipment and tools should be fully considered and accommodated where they meet appropriate safety standards. This information should be available to Operators, Managers and Maintenance Personnel.

Training

When considering training requirements in relation to equipment/machines/tools etc., it is important to bear in mind that three categories of persons have to be considered:

- a) Machine operators.
- b) Other persons who work at machines, such as “takers-off” and cleaners.
- c) Young workers.

It should be noted that experience alone in working with equipment/machines/tools etc., is not enough and that merely giving instruction cannot be regarded as training. Actual demonstrations should be given by the person in charge, followed up by such supervision as necessary to ensure that the lessons have been completely absorbed and that the trainee is competent to follow the prescribed practices.

Lighting requirements

The Workplace (Health, Safety and Welfare) Regulations 1992, compliment the requirement for sufficient and suitable workplace lighting. An efficient lighting system should provide adequate illumination for the work being done and illuminate passages and gangways.

A general overall illumination of 250 lux is satisfactory, but people doing specialised work may need double this amount of light over their work; this applies especially to people over 50 years of age.

To avoid glare, all lamps should be properly shielded or diffused. Particular attention should be paid to the positioning and shielding of local lights. Lighting should be installed in such a way as to avoid shadows. Fluorescent lighting overcomes problems of glare and shadow, but can occasionally cause rotating parts of machinery to appear stationary.

The hazard resulting from this stroboscopic effect can be overcome by adjacent lamps being wired off different phases of the 3-phase supply or by using localised incandescent lamps. Consideration should also be given to protect lamps from being damaged by machine operations and material handling.

Ventilation

Adequate ventilation/extraction must be provided to safeguard the health of equipment users and others who may be affected. For example, machines that generate dust, fumes and vapours etc., which could be hazardous to health.

Harmful substances

Some machine operations may involve the use of substances which may be hazardous to health, therefore, the Control of Substances Hazardous to Health Regulations 1999 must be complied with. For example, dust, fumes, vapours and oils, etc.

Noise Generation

The Noise at Work Regulations 1989 must be complied with when operating machines, equipment and tools. Where machinery is noisy to such an extent that it may damage hearing, noise levels can be reduced by:

- a) Anti-vibration mountings.
- b) Damping doors and panels to eliminate vibration and rattle.
- c) Exhaust silencers.
- d) Separation of noisy machines by distance or screening.
- e) Machine enclosures.
- f) Using helical cutters on planing machines.
- g) Damping vibration of saw blades.
- h) Efficient maintenance.

If, in spite of such engineering controls, persons are still at risk of exposure to noise above the action levels of 85dB(A) or 90 dB(A) over an 8 hour period, or it's equivalent, other measures must be taken, such as to reduce personal exposure

times – for example, by shifts, quiet refuges, job rotation and provide ear protection. Areas where ear protectors are required must be clearly marked and entry strictly controlled.

Regulations

The Health and Safety At Work Etc., Act 1974, The Provision and Use of Work Equipment Regulations 1998, The Pressure Systems and Transportable Gas Containers Regulations 1989 and The Electricity At Work Regulations 1989 must be fully complied with. The Lifting Operations and Lifting Equipment Regulations 1998 also apply to equipment used for lifting operations. There are certain Approved Codes of Practices, British Standards and HSE Guidance Notes related to Plant and Equipment/Tools that must also be considered.

2.3.14 Site Planning And Layout

This section provides a checklist of items which should be taken into account to achieve Health and Safety in site planning and layout. Following a preliminary appraisal, the checklist is sub-divided into Administrative and Operational Sections and both are presented in logical sequence.

Preliminary Appraisal:

- a) Examine contract documents and specification and establish constraints that affect planning of site layout and methods of construction.
- b) Define logic of the work sequence.
- c) Define area of site available for plant, access, temporary buildings and services, materials storage and welfare requirements.

Once the basic appraisal is complete the contract should be planned with due regard to the principles established by the Health and Safety At Work etc. Act - in particular that the employer shall provide:

- a) A safe system of work.
- b) Safe plant and equipment, safe erection and testing.
- c) Safe handling, storage and transport of materials.
- d) Safe place of work, safe access.
- e) Safe working environment.
- f) Information, instruction, training and supervision.
- g) Adequate welfare facilities.
- h) Protection of all persons likely to be affected by work activities, including the public, particularly children.

Many organisations already pay considerable attention to site planning and layout. They know from experience that fore-thought in this direction will be more than repaid by the savings effected in reducing hazards to people, equipment, plant and materials. They know too, that elimination of hazards is inherent in producing a job that runs smoothly - with materials delivered as and when required, with statutory requirements taken into account, with storage, fire precautions, health and welfare arrangements all worked out in advance. It even pays to devise safe ways and means of bringing money from the bank and to arrange parking space for Employees' cars to prevent obstructions on site.

Statutory Undertakers

Water authorities, telecommunication companies, gas and electricity companies should be contacted regarding the following;

- a) Request in writing to locate existing services, including gas, water, electricity, British Telecommunications, Sewers etc.
- b) Give instructions to isolate or divert existing supplies.
- c) Arrange isolation or diversion of overhead supplies or provide adequate protection.
- d) Arrange for temporary earthed supplies (single and three phase) for electricity.
- e) Consider safe location of sub-station for electricity.

First Aid for Site Works

The status of the Company on site would determine whether the Company's Site Management would be in control of the first aid provisions or would have to comply with the requirements of the controlling body for the site. On most sites, it is best that the Principal Contractor provides all the necessary first aid provisions and that they offer those provisions under Shared Welfare arrangements.

2.3.15 Site Welfare Facilities

The Construction (Health, Safety & Welfare) Regulations were combined with the CDM regs 1994 to make one new piece of legislation known as the CDM regs 2007, effective from April 2007. Further detailed information is contained in these Regulations or in the HSE's Construction Site Welfare Facilities Guidance Notes. This section highlights the main requirements and the Company's Policy for compliance.

Site workers should have adequate toilet and washing facilities, a place for warming-up and eating their food and somewhere for changing/storing clothing. The Company is responsible for providing or making available such welfare facilities as necessary for its site workers whether they are direct Employees or Sub-Contractors. The welfare facilities should be sufficient for everybody who is working on the site and can be arranged separately or jointly with others under Shared Welfare arrangements. When working on Client's premises carrying out small works operations, often the Client will be in the position to provide suitable welfare facilities.

The status of the Company on site would determine whether the Company's Site Management would be in control of the site welfare facilities that would also include first aid provisions. On most sites, it is best that the Principal Contractor or Client, provides all the necessary welfare facilities and that they offer those provisions under Shared Welfare arrangements.

Sanitary Conveniences

The number of toilets required will depend on the number of people working on the site. Wherever possible, toilets should be flushed by water, but if this is not possible, use chemical toilets. Rooms containing sanitary conveniences should be adequately ventilated and lit. Men and women may use the same toilet, provided it is in a lockable room and is suitably positioned away from any urinals that may also have been provided. A washbasin with water, soap and towels or dryers should be close to the toilets if the toilets are not near the other washing facilities provided on the site.

Washing Facilities

On all sites, there must be basins large enough to allow people to wash their faces, hands and forearms. All basins should have a supply of clean hot and cold, or warm water. If mains water is not available, water supplied from a tank may be used. Soap and towels (either cloth or paper) or dryers should also be provided. Where the work is particularly dirty or workers are exposed to toxic or corrosive substances (for example, during work in contaminated ground), showers may be needed. Full consideration must be given to comply with the COSHH Assessment Control Measures where hazardous substances are concerned. Men and women can share basins for washing their hands, faces and arms. Both men and women may use a shower provided that it is in a separate, lockable room so that one person can use the room at a time. Rooms containing washing facilities should be sufficiently ventilated and lit. Washing facilities must be provided adjacent to all drying rooms and sanitary conveniences.

Drinking Water

Make sure there is a supply of drinking water. It is best if a tap direct from the mains is available. Otherwise bottles or tanks of water may be used. If water is stored, it should be protected from possible contamination and changed often enough to prevent it from becoming stale or contaminated. Containers of drinking water must be clearly marked. Drinking water taps should be clearly marked and cups or other drinking vessels should be available at the water tap, unless the water is supplied as an upward jet that can be drunk from easily (for example, a drinking fountain).

Storage and changing of clothing

Make sure there are arrangements for storing clothing not worn on site and for protective clothing needed for site works. Where there is a risk of protective site clothing contaminating everyday clothing, these items should be stored separately. Where men and women are working on site, separate changing arrangements must be provided. There should be somewhere to dry wet site clothing.

Rest Facilities

Facilities for rest and meal breaks should be available. The facilities should provide shelter from the wind and rain and be heated as necessary. The rest facilities should have tables and chairs, a kettle or urn for boiling water and a means for preparing food.

Smoking

It should be possible for non-smokers to use the facilities without suffering the discomfort from tobacco smoke, it may be possible to prevent discomfort by increasing ventilation. If this cannot be done, it may be necessary to provide separate facilities for smokers and non-smokers, or to prohibit smoking in the presence of non-smokers.

Location of Welfare Facilities

Welfare facilities should be easily available to people working on the site. Toilets need to be easily accessible from where the work is being carried out. Hand basins should be close to toilets. Washing facilities need to be near rest rooms so that it is convenient for people to wash before eating. In most cases these facilities will be provided on site. Where work is done at occupied premises, arrangements can be made with the occupier to use the facilities provided for the people who normally

use the premises. In some cases, welfare and toilet facilities may be made available in nearby premises. This is acceptable, providing these arrangements are clear and agreed with the occupier of the premises. Such arrangements may be appropriate for short duration work or work done by mobile gangs.

If mobile gangs are being employed at work at a number of locations over a few days, facilities can be provided at a central location. This is on condition that they are available to workers within reasonable walking distance or within a reasonable time, taking into account any transport that is available. Alternatively, arrangements can be made at local houses, cafes or other premises. However, these arrangements should be made and agreed in advance by Managers or Supervisors of the Company. Arrangements with local cafes etc., would not be suitable where Employees need suitable facilities for personal hygiene regarding hazardous substances or contaminated sites etc. Workers should not be left to make their own arrangements.

All welfare facilities must be kept clean and if food is stored on site, it must be kept in a hygienic manner and at the correct temperature. The changing of clothing or the storage of equipment and tools are not allowed in the canteen. Food scraps and rubbish must be removed from sites as soon as possible. All personnel should change their clothing and wash themselves before taking meals particularly when working in environmental conditions that have exposed them to bacteria and harmful substances.

23.16 Working at Height

The Work at Height Regulations 2005 came into force on 6 April 2005 and consolidates previous legislation.

The regulations apply to all work at height where there is a risk of a fall liable to cause personal injury. They place duties on employers, the self-employed, and any person that controls the work of others to the extent of their control (for example building owners or occupiers who may contract others to work at height).

The regulations are aimed at maintaining and improving standards for all work at height. Standards for work above two metres will not change, they are simply being extended to work at any height.

Duty holders must ensure that:

- Works should not be carried out at height if the works can be carried out safely otherwise than at height;
- Where works are carried out at height, employers must take suitable and sufficient measures to prevent, so far as is reasonably practicable, any person falling a distance liable to cause personal injury.
- all work at height is properly planned and organised;
- those involved in work at height are competent;
- the risks from work at height are assessed and appropriate equipment is selected and used;
- the risks from fragile surfaces are properly controlled;
- equipment for work at height is properly inspected and maintained;
- every parapet, permanent rail or other such fall protection measure of every place of work at height are checked on each occasion before the place is used.

The Regulations include Schedules giving requirements for existing places of work and means of access for work at height, collective fall prevention (e.g. guardrails

and working platforms), collective fall arrest (e.g. nets, airbags etc), personal fall protection (e.g. work restraints, fall arrest and rope access) and ladders.

Schedule One of the Work at Height Regulations 2005 (Regulation 6(4)(a)) detail the requirements for existing places of work and means of access or egress at height and are detailed below:

Working at Height Environment

Every existing place of work or means of access or egress at height shall I:

- (a) be stable and of sufficient strength and rigidity for the purpose for which it is intended to be or is being used;
- (b) where applicable, rest on a stable, sufficiently strong surface;
- (c) be of sufficient dimensions to permit the safe passage of persons and the safe use of any plant or materials required to be used and to provide a safe working area having regard to the work to be carried out there;
- (d) possess suitable and sufficient means for preventing a fall;
- (e) possess a surface, which has no gap -
 - (i) through which a person could fall;
 - (ii) (through which any material or object could fall and injure a person; or
 - (iii) giving rise to other risk of injury to any person, unless measures have been taken to protect persons against such risk;
- (f) be so constructed and used, and maintained in such condition, as to prevent, so far as is reasonably practicable -
 - (i) the risk of slipping or tripping; or
 - (ii) any person being caught between it and any adjacent structure;
 - (g) where it has moving parts, be prevented by appropriate devices from moving inadvertently during work at height.

Falls from height remain the single biggest cause of construction deaths and one of the biggest causes of major injury. The regulations set out a simple *hierarchy* for managing and selecting equipment for work at height:

- avoid work at height where you can;
- prevent falls where you cannot avoid working at height;
- minimise the distance and consequences of a fall where the risk of a fall cannot be eliminated.

For scaffolding see Para: 2.3.12