Newman University
BIRMINGHAM

Contractor Health, Safety and Environment Information Booklet

Rev D (Aug18)

USEFUL INFORMATION

The full postal address of the campus is:

Newman University, Genners Lane,
Bartley Green, Birmingham, B32 3NT

Newman University:	Telephone:
Main switchboard	0121 476 1181
Estates Department (General Office)	0121 476 1181 ext. 2477
Health & Safety Officer	0121 476 1181 ext. 2506
Security Lodge	0121 476 1181 ext. 2358
Fire Officer	0121 476 1181 ext. 5394
Environmental Manager	0121 476 1181 ext. 2513
Waste Manager	0121 476 1181 ext. 2513
IT Services	0121 476 1181 ext. 2293

CONTENTS

PART 4: ENVIRONMENTAL & SUSTAINABILITY ISSUES

PART 1: ABOUT THIS BOOKLET

1.01 Introduction.

Newman University is fully committed to providing a safe and healthy working environment that is free of unnecessary hazards and risks to its employees and to protecting the Health & Safety of any other persons, including students and visitors, who may be affected by its work activities.

This commitment applies equally to matters that affect the environment.

Compliance with legal requirements will help to ensure that both Newman University and any contractors working on its behalf discharge their legal duties in relation to Health & Safety and protection of the environment.

This booklet provides guidance on Health & Safety and environmental protection in relation to work carried out by contractors working on Newman University's behalf.

This booklet is not an authoritative interpretation of the Law, but it is aimed at assisting contractors understand the importance placed on Health & Safety and protection of the environment by Newman University. The proper consideration of such issues is fundamental to all work carried out on the campus. Reviewing Health & Safety and environmental requirements forms an integral part of the process for awarding contracts.

The following Newman University documents support us in managing work carried out by contractors:

- Contractor HS&E Questionnaire.
- Contractor Job Registration and Work Authorisation.

1.02 Definitions.

Unless otherwise indicated, the following definitions apply:

'*CDM*': the Construction (Design and Management) Regulations 2015, its approved code of practice and any roles defined within CDM (such as client, principal designer, principal contractor, etc) will be applied accordingly.

'*Contractor*': any individual, business or organisation engaged by Newman University to carry out work, as defined, on any of its premises.

'*Work*', includes but is not limited to:

(i) the installation, testing, cleaning, maintaining, removal, etc of any item of plant, machinery, equipment or service (such as gas or electrical systems);
(ii) any work subject to the Construction (Design and Management) Regulations 2015 whether or not the work itself is, in fact, notifiable to an enforcing authority;
(iii) work on the installation, maintenance and/or repair of computer, information technology and telecommunication systems;
(iv) any work on the installation, maintenance and/or repair of fire-alarm and fire-fighting systems;
(v) any other work carried out by a contractor that by virtue of its nature represents a risk to the Health & Safety of any Newman University employee, the contractor and/or any other person, such as students and visitors, etc.

'*Work Co-ordinator*': the person (irrespective of their managerial role or job title) who on behalf of Newman University is responsible for initiating, progressing, monitoring or completing the work, as defined, and can includes both an individual or a team. For a long-term or complex project, the role of the Work Co-ordinator can change during the project's life-cycle, i.e. to reflect the different operational phases of the construction work.

Where a word, term or phrase is defined within Health & Safety or environmental legislation that definition will apply and related terms construed accordingly. In all other cases, common English usage will apply.

1.03 Health & Safety and environmental legislation.

The following lists the more common Health & Safety and environmental legislation, as amended, which may apply to work carried out for Newman University by a contractor:

(a) Health and Safety legislation, as amended:

Health and Safety at Work etc. Act 1974.
Health and Safety (First Aid) Regulations 1981.
Confined Spaces Regulations 1997.
Electricity at Work Regulations 1989.
Workplaces (Safety, Health and Welfare) Regulations 1992.
Manual Handling Operations Regulations 1992.
Personal Protective Equipment at Work Regulations 1992.

Construction (Design and Management) Regulations 2015.
Reporting of Injuries, Dangerous Occurrences and Diseases Regulations 2013.
Health and Safety (Safety Signs and Signals) Regulations 1996.
Provision and Use of Work Equipment Regulations 1998.
Lifting Operations and Lifting Equipment Regulations 1998.
Management of Health and Safety at Work Regulations 1999.
Pressure Systems Safety Regulations 2000.
Control of Substances Hazardous to Health Regulations 2002.
Control of Asbestos Regulations 2012.
Dangerous Substances and Explosive Atmosphere Regulations 2002.
Work at Height Regulations 2005.
Control of Noise at Work Regulations 2005.
Control Vibration at Work Regulations 2005.

(b) Environmental legislation, as amended:

Environmental Protection Act 1990.
Water Resources Act 1991.
Environmental Act 1995.
Environmental Protection (Duty of Care) Regulations 1991.
Hazardous Waste Regulations 2006.
Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991.
Pollution Prevention and Control (England & Wales) Regulations 2000.

The above lists are not exhaustive, and failure to include any other legislation does not imply that it is or may not be applicable to a specific project.

1.04 Management of Health and Safety at Work Regulations 1999.

These Regulations apply to all work carried out by a contractor.

Contractors must be able to demonstrate that suitable and sufficient risk assessments have been conducted before work on campus commences.

A risk assessment will identify the key hazards and assess the significant risks, and specify the control measures that will be used to eliminate, reduce or control any such significant risks.

The findings of risk assessments should, normally, be in writing and must be communicated to those affected, and a copy kept readily available on site.

In addition, there should be a process to ensure that risk assessments are continually reviewed and, as necessary, updated during the life cycle of a given project.

After carrying out risk assessment, it is normal practice (except in very simple cases) for a written method statement to be prepared. A method statement is a record of how to carry out the work safely by providing a structured approach to detail the sequence of tasks to be followed, the hazards and risks associated with each element of the task and the precautions that are required in order to work safely.

The simplicity or complexity of a method statement will depend on both the scale and nature of the operations involved in the project, and the potential hazards and risks identified.

PART 2: GENERAL MATTERS.

2.01 Site segregation and shared working areas.

It is desirable to segregate the work of contractors from those of Newman University and, if applicable, other contractors working within the same area.

However, such an approach does not eliminate the responsibility on Newman University to ensure that Health & Safety is maintained. For example, plant or services that remain in use within a segregated area will remain the responsibility of Newman University and, in such a case, the contractor will be informed of any significant hazards and risks which may be present.

Newman University remains responsible for its own activities and will ensure that no unnecessary hazards or risks are placed on a contractor from its work activities.

Whenever practicable, segregation of a working area should be achieved by physical means, e.g. a fence, barrier or the use of sheeting. Such a requirement is, normally, stated in the contract and will include who is responsible for its erection and subsequent maintenance. This interface between Newman University and a contractor will form part of the exchange of relevant Health & Safety information during the job registration process.

In circumstances where physical segregation cannot be achieved, consideration will be given to establishing work patterns that avoid both Newman University and a contractor working within the same work area at the same time. When more than one contractor is working within a given work area, the overall management of the work area will be given to a nominated contractor. In the case of work subject to CDM, a principal contractor will be appointed in writing to ensure that responsibilities for Health & Safety are clearly defined.

In addition, non-authorised persons should, where possible, be prohibited from entering a work area. However, the level of risk involved will determine the extent of the means needed to prevent access, e.g. significant risks will require fencing whereas minor risks may require ‘no entry’ signs and tape.

If physical segregation or work patterns cannot achieve adequate control, then Newman University will maintain overall responsibility for managing the work area, i.e. the Work Co-ordinator will assume a higher degree of responsibility than would otherwise be the case in a segregated area.

In such circumstances, regular monitoring of the work area will be necessary, and Newman University will be responsible for establishing the methods needed to ensure co-ordination, co-operation and the exchange of relevant Health & Safety information between all parties sharing the work area.

2.02 Site huts.

Site huts are frequently used as temporary facilities and require careful placement, e.g. preferably outside and more than 10 metres from any building on the campus.

All site huts must be provided with adequate fire-fighting equipment, and the use of portable gas heaters inside site huts is specifically prohibited.

An inspection certificate for the electrical supply to any site hut must be available, and in date portable appliance test reports (or stickers) for any items of portable electrical appliances that are to be used.

If a site hut is to be located less than 10 metres from any building on the campus, the written agreement of the Director of Estates, Newman University's Health & Safety and Fire Officers must be obtained.

2.03 Site services.

The proposed use of any Newman University service should be identified in order to establish that they are available and suitable for the required purpose.

Contractors will rarely require access to running hot water or piped gas supplies, although cold running water and plug-in electricity supplies will be routinely used. However, persons working in the vicinity of such services should be warned of their presence and position as damage to live services may result in serious risks, e.g. the ignition of a flammable gas.

Many high-pressure hot water pipes and heating mains could be lagged with asbestos-based insulation and a suitable risk assessment should be carried out if work is likely to interfere with such material.

The use of any fire protection equipment for a general water supply is specifically prohibited.

2.04 Use of Newman University's work equipment/materials.

The unauthorised use of Newman University's work equipment or materials should not be made by a contractor. If required, such proposed use should be raised and recorded during the job registration process.

Where authorisation to use Newman University's work equipment or materials is granted, the Estates Department will, as necessary, check to ensure that it is safe for use and the contractor is trained and competent.

Ongoing monitoring of work areas will be undertaken by the Estates Department (and/or Health & Safety Department) to ensure there is no unauthorised use of work equipment or materials.

In many cases, a contractor will use basic services during their work, such as a cold water supply and a plug-in electricity supplies. The use of such facilities should be kept to a minimum, and should always be within the terms of the contract.

2.05 Sub-contractors.

Contractors must declare any intention to use or rely on sub-contractors at the tender stage or during the job registration process, as appropriate.

A contractor will be held fully responsible for the actions or inactions of any sub-contractors they engage.

Newman University reserves the right to reject any sub-contractors, irrespective of any agreement or contract with the engaging contractor.

Contractors will be responsible for ensuring that any sub-contractors are fully conversant with, and apply, the content of this booklet. Sub-contractors must comply with Health & Safety or environmental requirements that are relevant to the work for which they are sub-contracted to perform.

Newman University reserves the right to evict any sub-contractor from site who infringes Health & Safety or environmental legislation, practices and procedures.

Contractors must declare the names of potential sub-contractors during the tender or job registration process, as applicable, and any changes to the declared sub-contractors must be agreed with the Work Co-ordinator.

2.06 Security.

Newman University may refuse entry of any persons, vehicles or equipment onto the campus or into any of the campus's buildings.

There are specific procedures, operated by Newman University, for the identification of contractors when working on site. Failure to comply with such procedures could result in expulsion from site (whether temporarily or permanently).

Contractors and their sub-contractors must comply with any restrictions on the movement or parking of vehicles, e.g. site speed limits, use of headlights, following traffic signs/signals, etc. Failure to comply with traffic control requirements could result in expulsion from site (whether temporarily or permanently).

2.07 Fire precautions.

Contractors must ensure that their employees and any sub-contractors they engage are familiar with the fire safety arrangements when working on site.

Information will normally be provided by prominently displayed notice stating:

(i) the location of any fire-fighting equipment;
(ii) the fire evacuation routes from the area;
(iii) the location of the designated fire assembly point;
(iv) the method of raising the alarm;
(v) the method of contacting the emergency services; and
(vi) the action to take in the event of discovering a fire.

Contractors must ensure that adequate fire-fighting equipment is provided for their own use when on site, such as if undertaking hot work. Reliance should not be placed on fire-fighting equipment owned by Newman University.

However, fire-fighting equipment owned by Newman University may be used by a contractor should a fire occur.

(a) Action on hearing the fire-alarm.

The fire alarm warning is a loud continuous siren. When the fire alarm sounds, leave the building, quickly and calmly by the nearest available fire escape route. If safe to do so, shut any doors and close windows behind you as you leave.

DO NOT stop to collect personal belongings.

DO NOT use any lifts.

On exiting a building, report to the designated fire assembly point as follows:

Maryvale Hall **Littlemore Hall** **Edgbaston Hall** **Oxford Hall** **Darwin Building** **Dwyer Building** **Julian of Norwich Building**	**Go to Assembly Point 3 on the Student Car Park.**
Edwards Building **Freire Building** **Barberi Building**	**Go to Assembly Point 2 on the Staff Car Park**
Sturge Building **Elgar Building** **McAuley Building** **Dupuis Building** **St Hilda Building** **Cofton Halls**	**Go to Assembly Point 1 on the Staff Car Park.**

Wait at the designated fire assembly point. **DO NOT** re-enter any building until you are told it is safe to do so by Newman University's Fire Controller, or a member of the Security Team, or by a representative of the West Midlands Fire Service.

(b) Fire-alarm testing.

A functional test of the fire-alarm system is carried out every Thursday between 1200 hrs and 1300hrs. During such tests, the fire-alarm will sound for approximately three to five seconds.

If the fire-alarm sounds for more than 10 seconds during the planned test times, it must be treated as a full fire-alarm and initiate the evacuation of the building, which should commence immediately.

(c) Fire action notices.

The following page shows an example fire action notice that will be found throughout the campus's buildings.

2.08 Emergency arrangements.

In the event of an emergency, such as a fire or a serious accident, the external emergency services should be contacted by dialling ‘9-999’ on any internal telephone.

If using a personal mobile phone, then dial the normal emergency number, i.e. ‘999’, and once the call is completed immediately report the emergency to the Estates or Health & Safety Department, or the Security Lodge. Failure to make such a notification could result in a delay in directing the emergency services to the correct place on campus when they arrive on site.

Contractors are responsible for providing adequate first-aid provision for their employees whilst on site. However, with prior agreement, Newman University may provide first-aid cover for contractors.

Contractors are responsible for the reporting of incidents covered by the Reporting of Injuries, Dangerous Occurrences and Diseases Regulations 2013, RIDDOR, to the Health and Safety Executive.

The Estates and/or Health & Safety Department should be immediately informed of any RIDDOR reportable incidents that occur on site.

Emergency arrangements will be discussed during the job registration process.

2.09 IT services, equipment, services and provisions.

To ensure minimum disruption to Newman University's IT infrastructure, the following guidelines should be noted:

- Before any work commences on flat roof areas, IT Services must be notified on **extension 2293.**
- Do not cut, sever or displace any unknown cables located in trunking or against walls or especially running across flat roof expanses. A proportion of the fibre optic cable runs across some areas of the flat roof and it is vital that this is not damaged because it is essential to maintain IT services. If in doubt, please contact IT Services on **extension 2293** and they will view the cable/wire and advise accordingly.
- When working near any IT equipment, all possible precautions must be made to ensure the equipment is not compromised and dust covers should be used. If the IT equipment needs to be relocated, IT Services should be notified on **extension 2293**.
- There are a number of computer switches and hubs placed in small rooms, cupboards and under stair wells. Again, these should not be compromised. If the need arises for access and this equipment is an obstacle, then IT Services should be notified before any work commences.
- If any access to the communications/server room is required in McAuley Building, full notification of the proposed work is needed at least four working days in advance to enable IT technicians to prepare alternative solutions.
- Any work taking place within the McAuley Building, inside the rooms, on the outer northern wall or on the roof area must be cleared with IT Services at least four working days before proceeding. This is to enable IT Technicians to assess the possible disruption and make adequate alternatives to computing distribution.
- Any work which takes place near or within the vicinity of the M&M (underneath the Lecture Theatre) must be cleared with IT Services before commencing. This is the location of our telephone system and main on-route network switching juncture.

2.10 Supplier commitment to equality and diversity.

(a) Commitment statement.

Newman University is committed to building and supporting a diverse and inclusive community. Our aim is to ensure that anyone who studies or works at Newman University will be empowered to achieve their full potential by fostering an environment of openness in which everyone is valued equally and can participate with confidence.

We value the widest possible range of cultural inputs from students and staff alike as we recognise that this will improve and strengthen our institution. The synergy of a diverse community will bring new ideas, exchanges and interrelationships which will enrich Newman University for the benefit of all.

(b) Values.

There are a number of values that underpin this commitment statement which form the basis of our equal opportunity strategy:

- A spirit of co-operation and understanding between all students and staff based on mutual respect and trust.
- A community that is built on tolerance and openness within high professional standards.
- An environment of equality of opportunity that encourages an understanding and appreciation of the needs of others.
- A commitment to dealing with oppressive behaviour, harassment or bullying.
- A culture where diversity is celebrated and all students and staff are valued equally.

(c) Supportive actions.

We recognise the true value of diversity and will provide equality of opportunity for all our students and staff by:

- Working pro-actively to promote good relations between all students and staff.
- Taking effective action to prevent discrimination, bullying or harassment on any grounds.
- Promoting equality of access to education, training and development
- Providing flexible learning and working opportunities to support differing aspirations and goals.

- Promoting good practice in all activities such as recruitment, selection promotion and curriculum practices.
- Listening to and learning from our students, staff and partners.
- Promoting, managing and monitoring equality and diversity across Newman University and in particular monitoring race, gender and disability in relation to student and staff profiles.

All our students, staff, partners and contractors have a responsibility to act in a way which supports and promotes this commitment.

PART 3: HEALTH AND SAFETY ISSUES

3.01 Abrasive wheels.

Many different types of equipment use abrasive wheels, e.g. conventional hand-held grinders, disc cutters, etc. Abrasive wheels present a number of significant hazards and risks including flying sparks causing fires or eye injuries, wheels bursting due to damage or over-speeding and direct contact with rotating wheels.

Providing an abrasive wheel is checked and properly mounted, and not over-sped, the risk of a wheel burst is remote. Similarly, the correct fitting and adjustment of a guard can reduce the risk of direct contact with a rotating wheel.

Only a trained and competent person should change an abrasive wheel.

The use of eye protection, e.g. goggles or a visor, should be mandatory for the user of equipment, and may be required by others close to the work area if there is a risk of sparks causing eye injuries. Suitable warning signs must be displayed.

The need for screening of the work area must be risk assessed to ensure that fire risks and risks to third parties are either eliminated or minimised.

3.02 Asbestos and asbestos-containing material.

Asbestos and asbestos-containing material, ACM, may be encountered in roof structures, wall linings, loose insulation on steam and hot water pipes, floor tiles, seals and gaskets, etc.

Prior to any work commencing that may involve contact (whether direct or indirect) with asbestos or ACMs, information will be obtained from the 'Asbestos Register' to determine location, type and condition of the material.

A decision will then be taken to decide whether the work is likely to cause disturbance of the material and, if so, whether its removal is required before the work takes place.

Work with asbestos is subject to specific legal controls, and generally, work must only be carried out by a licensed operator.

Unless licenced, contractors will not, normally, undertake any work involving asbestos or ACMs. However, some minor works, i.e. non-notifiable, non-licenced work, may be undertaken is some circumstances, e.g. where a risk assessment has been conducted and the necessary controls put in place.

The Work Co-ordinator will check the Asbestos Register prior to any works commencing and, as necessary, provide appropriate information to a contractor.

If you suspect that any material contains asbestos, even if the area has previously been declared 'asbestos-free', stop work immediately and seek advice from the Estates Department. A competent person should investigate the suspect material.

3.03 Cartridge operated stud guns.

These can cause hearing damage due to the percussive noise when discharged and injury from high energy projectiles. Their use requires specialised knowledge and training and, in many ways, they should be treated as a hand-held firearm.

Cartridge operated stud guns must comply with the appropriate standards, and must never be left unattended, even when empty.

All cartridges must be securely stored, i.e. in a locked and marked container, and all cartridges must be accounted for. A safe system of work must be in place to deal with any cartridges that fail to discharge.

Written authorisation must be obtained from the Estates Department in all cases where the use of a cartridge operated stud gun is proposed.

3.04 Compressed gas cylinders.

Compressed gas cylinders present a range of hazards and risks, such as cylinders falling over if not secured and causing injury, leaks from flammable gas cylinders, e.g. propane, butane and acetylene, creating potential fire or explosion risks, skin burns from contacting cold cylinder surfaces as gases discharge, etc.

All compressed gas cylinders should be stored in locked/secure and well-ventilated area that is, preferably, outside a building.

It is normal practice to provide a portable storage cage that is ventilated, lockable, with cylinders secured upright, and fitted with a suitable warning sign.

All cylinders should be transported in suitable manner, e.g. in a dedicated, secure carrier.

Cylinders of oxygen or flammable gases must be stored separately and away from any sources of ignition.

Oxygen enrichment can be a particular risk during gas welding or flame-cutting inside a confined space or a poorly ventilated area, and special precautions may be required.

3.05 Confined space entry.

Entry into confined spaces is the subject of specific legal requirements, the Confined Spaces Regulations 1997.

Any proposed entry must be identified and agreed with the Estates Department before entry is undertaken, and will be subject to specific documentation and controls.

3.06 Electricity.

The Electricity at Work Regulations 1989 establish legal requirements on the use of electricity at work, and guidance is contained in HS(R)25: 'Memorandum of guidance on the Electricity at Work Regulations 1989'.

Contractors are prohibited from using Newman University's electrical supply other than where written authority has been given by the Estates Department. The use of 240v plug-in power sockets will, usually, be agreed during the job registration process.

Where a project involves the installation, extension, maintenance, repair or testing of electrical systems operating at >50V, written authority must be given by the Estates Department.

Where the project involves the installation, extension, repair, maintenance or testing of an electrical system exceeding 1000v AC or 1500v DC between conductors or 600v AC or 900v DC between a conductor and earth, there

must be authorisation, and attendance, by a Senior Authorised Person from Newman University.

All portable electrical appliances, extension leads, etc used on site must have current reports of inspection and test, e.g. a portable appliance test, and records should be available or the equipment stickered.

Where possible, portable and handheld electrical equipment should be 110v centre tapped earth, or a lower voltage or battery powered.

Electrical permits-to-work will be issued by the Senior Authorised Person or, in their absence, the Director of Estates who will outline the safety procedures that will apply. Refer to Newman University isolation of services process.

Access into sub stations or plant rooms is restricted to authorised personnel only, and permission to enter must be approved and given by the Senior Authorised Person or, in their absence, the Director of Estates.

Any personnel working in sub stations or plant rooms must hold the appropriate certification.

3.07 Excavations.

The collapse of inadequately supported excavations has been a major source of fatal injuries, and many injuries have resulted from persons falling into inadequately fenced excavations.

During excavation work there are further risks of damage to underground services, including electrical and gas supplies. Irrespective of any plans or service drawing, the location of any buried services must be checked with a suitable detection device.

Where the location of buried services is unclear or cannot be confirmed with a suitable detection device, mechanical digging should not take place.

Adequate facilities should be provided to support all excavations where any persons work at a depth of greater than approx. 1.4 metres, i.e. where the collapse of the excavation could result in the substantive burial of a person. The proper assessment of ground stability is crucial to ensuring the correct support is provided to ensure safe working within an excavation.

Safe access and egress must be provided into excavations, such as the use of a tied ladder.

All excavations must have adequate barriers or fences, and where necessary temporary lighting should be provided.

3.08 Explosives.

The detonation of an explosive can result in fire, destruction of property, flying debris, excessive noise levels, etc and their use on site will rarely be necessary.

The possession, storage and use of explosives are controlled by stringent legal requirements, and specific advice must be obtained before any use is proposed.

Written authorisation must be obtained from the Estates Department (and/or Health & Safety Department) before any explosives are brought or used on site.

3.09 Flammable substances.

Many materials are combustible, flammable or highly flammable and can present significant fire risks if not properly stored, used or controlled. The following definitions use flashpoints to classify flammable liquids:

Classification	Flashpoint
Flammable Liquid	32 to 65ºC
Highly Flammable Liquid	23 to 32ºC
Extremely Flammable Liquid	Less than 23ºC
Petroleum Products	Less than 21ºC

The vapours of many flammable liquids exhibit other hazardous properties, such as being anaesthetic, narcotic or irritant, and adequate controls and systems of work must be in place to prevent risks to users.

Flammable gases and liquids should not, generally, be used in confined spaces or other poorly ventilated spaces where the build up of fumes can occur, and create significant risks of fire or explosion.

Adequate controls, including the use of local exhaust ventilation, LEV, or forced air ventilation, protected electrical equipment or intrinsically safe electrical equipment, must be provided in such circumstances.

The main storage requirements for highly flammable liquids are:

- the quantity in use should be as small as practicable, i.e. less than 5 litres;
- the total storage in any workroom should be less than 50 litres and stored in a fire resistant cabinet;
- storage outdoors should not be within 5 metres of any part of a building or within 4 metres of any boundary fence that has less than ½ an hour fire resistance, unless in a purpose built store.

There are similar requirements for the storage of liquefied petroleum gases, LPG, such as butane, propane and mixtures.

LPG must not be stored in any closed or unventilated bin or in any other area where fumes could encroach into drains, sumps or pits. LPG vapours are heavier than air and can accumulate, often as flammable or explosive mixtures, in confined spaces or in below ground level rooms, etc.

Many loose or low density solids, e.g. expanded polystyrene and polyurethane foam, present serious fire risks. In many cases the products of combustion are often hazardous and, sometimes, toxic.

No combustible materials should be stored or used in any area of a building that could impinge on a fire evacuation route. Flammable materials should not be stored near to any building fire exits or designated fire assembly points.

No smoking restrictions apply on the campus and smoking is only allowed in designated smoking areas.

3.10 Fragile roofs (incl. working on or passing across).

Falls through fragile roofs or rotten roofing materials is a common cause of fatal accidents, and unless it can be determined that a roof is capable of withstanding the load, all roofing material must be regarded as fragile (irrespective of its condition).

Adequate precautions must be taken to prevent falls through fragile roofs and safe methods of access, egress and working on a fragile roof must be provided.

Before any work on or passing over any roof is proposed, a specific risk assessment must be conducted and a detailed method statement prepared, and both documents provided to the Estates Department.

Suitable warning signs must be displayed at any roof access points, including temporary access points.

3.11 Hazardous substances.

(a) Toxic and very toxic substances.

These are substances that, if inhaled, ingested or penetrate the skin, can cause a serious health risks, and even death. It is important to establish the toxicity of any such substances to assess the potential risks.

Safe, secure/locked and signed storage must be provided for any toxic or very toxic substances.

If appropriate, special first-aid provisions should be immediately available where toxic or very toxic substances are stored, handled or used.

Special personal protective equipment, PPE, will, normally, be required by any person handling or using such materials, and other persons working in close proximity to or who cannot be segregated from the use may also require suitable PPE to be worn.

Eating, drinking and smoking restrictions must be applied where toxic or very toxic substances are stored and used.

Written authorisation must be obtained from Estates Department (and/or Health & Safety Department) in all cases where the use of a toxic or very toxic substance is proposed.

(b) Oxidising agents.

These are substances that give rise to highly exothermic reactions when in contact with certain other substances, particularly flammable materials, and increase the risk or intensity of a fire.

Except oxygen cylinders, e.g. used with oxy-acetylene equipment, there are few foreseeable situations where powerful oxidising agents will be used on a project.

However, certain weed killers, e.g. sodium chlorate, and some toilet cleaners are classed as oxidising agents but, in normal use, should not be a significant risk.

Oxidising agents must be stored away from combustible, flammable and corrosive materials, and a suitable warning sign displayed.

Adequate PPE must be provided for the user of any oxidising agent. The contamination of ordinary clothing and work wear can increase the risk of ignition and the potential for a serious injury, e.g. if welding or flame-cutting.

No smoking restrictions apply on the campus and smoking is only allowed in designated smoking areas.

Written authorisation must be obtained from the Estates Department (and/or Health & Safety Department) in all cases where the use of an oxidising agent (other than oxygen cylinders, sodium chlorate weed killers and toilet cleaners) is proposed.

(c) Corrosive substances.

These are substances that have the capability to destroy living tissue on contact, i.e. cause chemical burns, and include some paint strippers, cleaning fluids, wet-battery acids, etc.

Suitable personal protective equipment, PPE, is normally necessary when handling or using such substances.

In a minority of cases, such as the use of hydrofluoric acid, special first-aid facilities may be required on-site.

All materials must be properly stored, e.g. secure and marked compounds.

(d) Harmful and irritant substances.

These substances present a lower health risk but can still cause problems if inhaled, ingested or come into contact with the skin or eyes.

Many more substances fall into this category, such as adhesives, resins, solvents, etc.

The normal risk is irritation caused to the eyes or skin by direct contact, and to the lungs by inhalation of a fume or mist.

The small scale use of such substances is unlikely to present any significant risks providing basic control measures are taken, e.g. ensuring personal hygiene, using suitable personal protective equipment, PPE, etc.

Such materials must be properly stored and a suitable area that is marked would normally suffice.

The large scale use of such substances or their use in confined spaces will present a more significant health risk, and in some cases an odour nuisance can be a problem.

3.12 Ionising radiation.

Ionising radiation sources are controlled by stringent legal requirements that establish tight controls on the registration, storage and use of an ionising radiation source or X-ray generating equipment.

Users must be able to demonstrate specialist knowledge and skills, and segregation or restriction of access to the work areas will be required.

There must be an appointment “radiation protection adviser” to review safe systems of work, assess exposure levels, etc in relation to the use of ionising radiation sources.

Specific written authorisation must be obtained from the Estates Department (and/or Health & Safety Department) in all cases where the use of an ionising radiation source or an X-ray generator is proposed.

3.13 Ladders and stepladders.

Ladders should only be used as a means of access to a safe working platform or for short-duration, light-duty work. Users must be instructed in the safe use of ladders, such as:

- for general purpose ladders, don't use the top three rungs and maintain three points of contact,
- for step ladders, don't use the top two steps unless a working platform and suitable handrail is available on the stepladder;
- for a swing-back or double-sided stepladder, do not use the top three steps where a step forms the very top of the stepladder.

Ladders should only be used for work at height if a risk assessment has shown that the use of more suitable work equipment is not justified because of the low risk and either (a) the short duration of use or (b) existing features on site which cannot be altered.

All ladders must be of a suitable design, and adequately constructed, i.e. to the relevant BS, and maintained in good order.

All general purpose ladders must be tied or footed when in use. Ladders used for access should extend at least four rungs above the point of access or egress. For stepladders, ensure the legs are full open and that leg stays are fully extended and or secured.

Ladders must be carefully checked before use; damaged or defective ladders should be quarantined to prevent unauthorised use by others.

3.14 Lasers.

These devices are finding increasing use in project work, such as for steelwork alignment, checking drainage falls, site measuring, etc.

Some lasers present a particular risk of eye injuries due to their high intensity or narrow beam width. Problems can be caused by both direct exposures, i.e. looking into the beam, or from indirect exposure when a beam reflects of a surface.

The wavelengths of some lasers are invisible to the human eye, although they can cause permanent eye damage.

Only Class 1 lasers should be regarded as intrinsically safe, i.e. a low-energy level, and will not cause injury.

Written authorisation must be obtained from the Estates Department (and/or Health & Safety Department) in all cases where the use of a laser above Class 1 is proposed.

3.15 Lifting operations.

Lifting operations are a major potential source of risk, and require special equipment to be used by trained and competent operators.

The misuse of lifting equipment or the poor consideration of the correct lifting method to be used has resulted in many serious, and fatal, injuries.

A competent person must examine lifting equipment, and a record of the examination maintained.

Evidence of operator competency should be provided.

The selection of the equipment to use during a lift must be properly considered. All lifting equipment must be adequate for the job, and used within the permitted safe working load.

A detailed lifting plan must be provided except where very simple lifts are to be undertaken. A lifting plan is required for any complex lift, e.g. tandem lifts, lifting through blind accesses, etc. Lifting plans must include details on the method of communication to ensure the lift can be carried out safely.

Written authorisation must be obtained from the Estates Department for the use of any lifting equipment or lifting accessories owned by Newman University.

3.16 Mobile elevating working platforms, MEWPs

MEWPs can provide a good safe access to high-level work but, as with any work at height, there must be safe systems of work in place to reduce risks.

Only fully trained, competent and authorised persons must operate MEWPs, and these should only be operated on firm and level ground. Rough-terrain MEWPs are available and must only be operated within the terrain requirements specified in the manufacturer's handbook.

If working outside, high winds can tilt a MEWP and make it unstable, so the maximum safe wind speed for the planned operation must be established and communicated.

The working platform must be provided with guard rails and toe boards or other suitable barriers. Tyres must be correctly inflated and any outriggers extended and chocked before raising the platform. MEWPs must not be moved while the platform is in a raised position unless the equipment is specifically designed for that purpose, and it can be done safely.

Adequate systems must be in place to prevent MEWPs being struck by other vehicles and articulated knuckles or elbows of the support arm must not protrude into a live traffic route. If necessary, a banksman should be provided to restrict and control the movement of passing vehicles.

The use of a safety harness and lanyard can provide extra protection against falls, especially if the platform is in motion. A safety harness and lanyard will not prevent a fall; it can only minimise the risk of injury if a fall occurs. Persons using a harness and lanyard should be trained and competent, and understand how to check, wear and adjust the harness before use and how to correctly connect it to the working platform.

3.17 Overhead working.

The main hazards and risks are from falling articles and, to a lesser extent, persons.

Some 40% of fatalities in the construction industry occur during maintenance and of these some 90% are due to falls. Any work more than 2m above the ground must be carried out from a suitable work platform and with a written method statement in place.

Persons working at heights where there is a risk of a fall must be provided with suitable harnesses, anchor points, etc. All safety harnesses should be correctly maintained and persons trained in correct use.

The use of temporary barriers may be necessary and all open edges must be fitted with suitable warning signs.

3.18 Oxy-acetylene equipment.

This equipment presents a number of specific risks due to the highly flammable and explosive nature of acetylene and the powerful oxidising nature of oxygen.

Care must be taken to ensure that equipment is well maintained and the user is competent. Gas cylinders must be secured, e.g. on a purpose built welding trolley, or in a cage, i.e. a high demand system with a distribution manifold.

Damaged flexible hoses should only be repaired with suitable replacements, complying with BS EN 559 or BS EN ISO 3821; colour coding is red for acetylene and blue for oxygen.

Hose connectors must be suitable, standard 'Jubilee' type clips' are not acceptable.

Oxy-acetylene equipment must be fitted with suitable flashback arresters on each gas cylinder and cylinders must be adequately protected from both direct/indirect heat sources and mechanical damage.

Adequate fire-fighting equipment should be readily available when gas cutting/welding is taking place.

A 'Hot Work' permit is, usually, required for all cutting/welding operations, and will be issued by the Estates Department.

3.19 Pneumatic hammer drills.

The main hazards are noise from the compressor and drill, and flying material. The operator and possibly others working in the area must wear suitable hearing and eye protection.

The correct siting of the compressor, i.e. away from occupied areas, can reduce the need for third parties to wear PPE. In addition, the use of acoustically quietened equipment will significantly reduce noise exposure.

Dust and fumes, particularly from diesel engine compressors, can create problems. Compressors exhausts must not be sited near to any air intakes, particularly if supplying air for breathing apparatus.

Water spray may be appropriate to damp down areas and suppress dust during work.

3.20 Scaffolding.

The use of scaffolding for access and work platforms is a major cause of accidents due to the potential for persons, tools, equipment and materials falling from a height. If not correctly constructed, the scaffolding itself may collapse.

Adequate precautions should be taken to prevent objects falling, e.g. close boarding of the work platform, use of catch boards or nets or brick guards, suitable toe boards etc.

The area below any scaffolding must be classed as a head protection zone, and suitable warning signs displayed. The wearing of head protection must be enforced.

Scaffolding must be properly designed for the intended purpose, e.g. as an access or a load bearing work platform, and must be erected by trained competent persons. There must be a record of routine inspections of the scaffolding.

Access to any partly built or unfinished scaffolding must be prevented.

If materials are to be disposed of off scaffolding, a chute or hoist must be provided. The free falling of materials, or ‘bombing’, into skips is not acceptable.

3.21 Vehicles and site transport.

Most vehicles brought onto site will be used for transport and, consequently, will be subject to the normal vehicle requirements on the public highway, e.g. MOTs, licensed drivers, etc.

However, special purpose vehicles, e.g. rough terrain lift trucks, excavators, dump trucks, etc can be used.

There must be evidence that all vehicles are adequately maintained in a safe condition, and that operators are trained and authorised to use the vehicle.

Consideration must be given to vehicle noise, and the organisation of traffic routes should be established on a large site.

Whenever practicable, pedestrians and vehicles should be physically separated.

Vehicles used for lifting operations, e.g. a forklift truck, must have valid inspection reports on their safe operation and condition. The SWL of the vehicle must not be exceeded.

Where appropriate, a catalytic converter should be fitted to the exhaust system.

Site speed limits and other restrictions, e.g. parking, must be obeyed.

3.22 Welding equipment.

The main hazards and risks are those of fire or explosion, and in the case of electrical welding sets, the misuse of electrical supplies.

Other hazards include injuries due to tripping over trailing leads or hoses, eye injuries due to high levels of UV and IR light, etc.

All leads and hoses used with welding sets should be kept tidy, and as short as possible. Connectors used to secure hoses either to the welding sets or to other lengths of hose, should be of a suitable type; they must provide a gas tight seal without damaging the flexible hose material. Devices that rely upon a worm screw, e.g. a ‘Jubilee Clip’ are not satisfactory.

An earth connection should always be made within 10 metres of an arc welding set and the open circuit voltage limited to 40 volts.

Suitable PPE must be provided, and worn by the operator. When carrying out welding in occupied areas, suitable welding screens should be provided to reduce direct vision of the welding operation. Adequate controls, e.g. local exhaust ventilation (LEV), must be provided to ensure that no-one is exposed to any health risk from welding fumes.

Specific written authorisation must be obtained from the College in all cases where the use of welding equipment is proposed.

3.23 Work at height.

This now refers to any place from which a person could be injured falling from it, even if it is at or below ground level and the key principle is to take reasonably practicable steps to prevent anyone falling.

Work at height requires:

- proper planning and organising;
- weather conditions to be considered;
- that personnel are trained and competent;
- that the place where work at height is done is safe;
- that equipment for work at height is appropriately inspected;
- that the risk from fragile surfaces are properly controlled; and
- that the risk from falling objects are properly controlled.

PART 4: ENVIRONMENTAL & SUSTAINABILITY ISSUES.

4.01 Introduction.

It is the policy of Newman University to conduct its operations in a manner that reflects our commitment towards the protection of the environment. To this end all contractors, and any sub-contractors they engage, are required to execute projects in a manner that minimises any potential harm to the environment.

Contractors shall ensure that all work under their managerial or operational control is carried out in accordance with all relevant environmental legislation, and the requirements of this booklet.

Newman University reserves the right to evict any contractor or sub-contractor from site who infringes environmental legislation, practices and procedures.

4.02 Control of noise.

Contractors should ensure that any work undertaken during a project does not expose any employee or student to a noise level exceeding 80 $dB(A)_{,LEP,d}$.

A detailed noise assessment should be made of any potentially hazardous noise exposure and, as appropriate, suitable action should be taken to control exposure including:

(i) elimination of the noise at source;
(ii) the use of engineering means, e.g. enclosures;
(iii) the provision of appropriate warning signs; and
(iv) the provision of suitable personal protective equipment.

Contractors must ensure that any work carried out will not adversely affect the general background noise levels at the campus perimeter, i.e. give rise to complaints from local residents.

Noise levels at the boundary should not exceed 50 $dB(A)L_{eq}$. An assessment should be made of any potential off site noise levels, as necessary, and appropriate actions taken to reduce the levels below any maximum specified by the Estates Department (and/or the Environmental Manager).

4.03 Control of dusts, fumes and smoke.

The contractor must effectively control the creation of dusts, fumes and smoke that could be offensive or injurious to the health of any employee, student or visitor or which, if it drifts off-site, would give rise to complaints from local residents.

4.04 Waste management.

As part of the project specification, an assessment should be made of the nature and likely quantities of waste that will be produced.

Contractors are required to dispose of waste in accordance with the requirements of Sections 33 and 34 of the Environmental Protection Act 1990, the Environmental Protection (Duty of Care) Regulations 1991 and any other relevant waste-related regulations including, if applicable, the Hazardous Waste Regulations.

All waste is treated as controlled and should only be handled by a carrier registered under the Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991.

Where a contractor removes or sub-contracts the removal of waste, there must be a correctly completed ‘Waste Transfer Note’, a copy of which is kept by the parties involved in the transfer.

A ‘Waste Transfer Note’ includes a description of the waste, its 6 digit ‘EWC’ code, the quantity involved and planned place of disposal, e.g. a waste site or waste recycling centre.

A copy of the ‘Waste Transfer Note’ must be sent to the Estates Department or placed into the project Health & Safety file for all capital or CDM projects.

All contractors must arrange for containers for the disposal of waste via Newman University’s preferred waste disposal supplier. No waste shall be deposited in any Newman University skip other than with the express permission of the Estates Department, and detailed during the job registration process.

The storage of loose bulk wastes on campus is not permitted.

Contractors will need to make the Estates Department aware of the person responsible for waste collection and disposal, and the Estates Department

will check on the appropriateness of the consignment note or other disposal arrangements.

Contractors unsure of their responsibility regarding waste management should contact the Environmental Manager for further advice.

4.05 Liquid waste.

The management of any liquid waste produced by a contractor during a project needs careful consideration, and monitoring, by the Estates Department.

The unauthorised use of the effluent, foul or surface water drainage systems to dispose of liquid waste can create substantial environmental risks.

Contractors must ensure that adequate arrangements are in place to dispose of liquid waste in a safe and environmentally sound manner. If there is any doubt about the correct method to remove liquid waste from the area, contact the Newman University's Environmental Manager for further advice.

The contractor should only remove waste related to the specific project. No other materials should be handled unless written, authorisation has been given by the Estates Department.

4.06 Control of contractor materials.

Contractors must ensure that all substances, materials and articles brought onto site are stored safely.

All chemicals, oils, fuels, solvents and liquids (other than water) must be stored within a bunded area (approx. 110% of the stored volume). Only the minimum volume required for immediate use should be dispensed.

All on site movements of chemicals, oils, fuels, solvents and liquids (other than water) dispensed from the bunded area must be undertaken on bunded or spill protected pallet or using a secondary container.

Any accident or spillage that could result in a liquid entering a drain on campus or an off-site drain on the public highway must be reported immediately to the Estates Department or the Security Lodge as required by the accident or emergency procedures in operation.

Efforts must be made to contain any spillages, such as the use of a ‘spill kit’, to prevent it from entering the site’s drainage system but only where this can be achieved without incurring undue risk to Health & Safety.

Notes:

Newman University Campus

The following drawing shows the location of the main vehicle entrance, the designated fire assembly points, the Sanctuary dining area, the Security Lodge and the service road at the rear of the campus.