School of Engineering

Dept of Engineering Trades Plumbing Workshops & Laboratory

Health and Safety File

Workshops & Laboratory

P1238 / P1244

File 1

Rev: April 2016

School of Engineering

Dundalk Institute of Technology

Ancillary Safety Statement

April 2016

This Ancillary Safety Statement is to be read in conjunction with the Parent Safety Statement of Dundalk Institute of Technology

Table of Contents

1. Introduction

Under the provisions of The Safety, Health and Welfare at Work Act 2005, Dundalk Institute of Technology is required to ensure so far as is reasonably practicable the health, safety and welfare of all its employees and students engaged in work or study, and all visitors to the Institute premises.

In view of the recent extensive expansion that has taken place on the campus and in order to comply with the requirements of the 2005 Act, the Institute has decided to review and update its Safety Statement. Dundalk Institute of Technology's safety management programme consists of a Parent Safety Statement supplemented by seven ancillary Safety Statements, which apply to different functional areas of the Institute. These ancillary Safety Statements take account of the diverse range of activities, which apply across the Institute.

The Institute's overall Safety Statement is comprised of the following documents:

- Parent Safety Statement
- Ancillary Safety Statement – School of Business & Humanities
- Ancillary Safety Statement – School of Health & Science
- **Ancillary Safety Statement – School of Engineering**
- Ancillary Safety Statement – School of Informatics & Creative Arts
- Ancillary Safety Statement – Secretary/Financial Controller's Functional Area
- Ancillary Safety Statement – Registrar's Functional Area
- Ancillary Safety Statement – Regional Development Centre Functional Area
- Emergency Evacuations Procedures Manual

The purpose of the Ancillary Safety Statements is to provide details of the specific hazards and control measures which apply in these areas. Each Ancillary Safety Statement should be read in conjunction with the Parent Safety Statement.

Back to contents page

2. General Statement of Policy within the School of Engineering

The School of Engineering Functional Area is committed to ensuring that high standards of health and safety are achieved and maintained throughout all areas under our control. The key mechanism for achieving and maintaining safety is Risk Assessment, by which we identify hazards, which have the potential for harming health or causing accidents, evaluate the risks arising and select and implement appropriate precautions.

Throughout the School of Engineering Functional Area, Risk Assessments are carried out in all areas under our control periodically. Risk Assessments must take account of any changes with regard to the structure of the organization, Academic Staff, work practices; use of machinery, design techniques or equipment all may necessitate periodic changes to this document as well as any periodical amendments or updates to legislation.

It is essential that all staff and students contribute and cooperate to this process, thus ensuring that the School of Engineering Functional Area's stated objective of providing in so far as is reasonably practicable a safe place of work is achieved. Employees are encouraged to contribute to the improvement of health and safety by making suggestions to their departmental manager. The success of this policy depends on the co-operation of all staff and students, and it is therefore extremely important that staff:

Read and understand the safety information provided

Know their role and responsibilities.

Always abide by the arrangements the Institute has put in place to ensure their health, safety welfare, and that of their colleagues and others.

The process of Risk Assessment in the School of Engineering Functional Area enables us to take all relevant precautions to ensure that Dundalk Institute of Technology's legal standard as an employer is fulfilled particularly in relation to:

- Exercising all due care
- Putting in place necessary protective and preventative measures
- Identifying hazards and assessing risks likely to result in accidents or ill-health
- Not being required to take further measures where these would be grossly disproportionate having regard to the unusual, unforeseeable and exceptional nature of the circumstances.

Health and Safety is overseen in the School by the Functional Area Safety Committee which contains representatives from all of the areas within the School (See Appendix I for membership details)

Signed on behalf of School of Engineering, Dundalk Institute of Technology,

_____

Mr. Eugene Roe
Head of School of Engineering

3.0 School of Engineering Functional Safety Area: Description

The School of Engineering is divided into Four Departments, one Research Centre.

1. Department of Electronic & Mechanical Engineering
2. Department of the Built Environment
3. Department of Engineering Trades
4. Centre for Renewable Energy at DkIT(CREDIT)

The School of Engineering is predominantly located in the following areas of the Institute:

Location	Description	Primary Activity
North Block	Dept. Electronic & Mechanical Engineering	○ Lecture rooms ○ Computer Labs ○ Office based activities ○ Work Placements ○ Laboratories ○ Workshops
North Block South Block	Dept. of the Built Environment	○ Lecture rooms ○ Computer Labs ○ Office based activities ○ Laboratories ○ Fieldwork
North Block South Block The Carroll's Building	Dept of Engineering Trades	○ Lecture Rooms ○ Computer Labs ○ Office based activities ○ Drawing Offices ○ Motor Engineering Workshop ○ Plumbing Workshops ○ Carpentry Workshops ○ Electrical Workshops ○ Motor Engineering Lab ○ Electrical Lab ○ Plumbing Lab

Back to contents page

Risk Assessment is carried out at least once per year in each location in the School of Engineering functional area under the direction of the Head of School, Mr. Eugene Roe who is the responsible person.

The wide range of workplace activities and the associated risks to health, safety and welfare within the School of Engineering can be broadly categorized as follows:-

- Offices, (Administration and Lecturing Staff) – low to medium risk.
- Lecture Rooms, Drawing Offices, Computer Labs. – low to medium risk
- Workshops – low to high risk

Refer to Appendix II for School of Engineering safety management organizational layout.

Hard copies of this Functional Area Ancillary Safety Statement are available at the following locations:

1. Administration Office, School of Engineering
2. Workshop locations
3. Laboratories

Back to contents page

4.0 School of Engineering – Overview of Risk Assessment Process.

This Ancillary Safety Statement covers all activities carried out by the School of Engineering, and should be read in conjunction with the Institute Parent Safety Statement.

Dundalk Institute of Technology will adapt the "General principles of prevention" as outlined in the 2005 Act Schedule 3

When a hazard is identified and the risk assessed, the necessary arrangements are put in place to protect safety and health.

Dundalk Institute of Technology will utilize the hierarchy of controls A series of common sense steps for hazard control (often called hierarchy of control) **where elimination of the risk is not reasonably practical**,.

These steps are:

1. Substitute the hazard (e.g. use a less harmful substance).
2. Isolate the hazard.
3. Use engineering controls (e.g. Physical controls).
4. Put in safe work practices (e.g. Instruction, training, supervision).
5. Use Personal Protective Equipment (PPE) such as gloves / overalls.

If a hazard cannot reasonably be eliminated it is the policy to work through this list to minimise exposure to risks. For example, the Institute will try to substitute the hazard first. If this is not possible, will go to the next step and so on. In some cases it may be appropriate to implement a combination of the steps e.g. Steps 3, 4 and 5.

The list above indicates an "order of priority" for remedial measures for any hazard situation which Dundalk Institute of Technology will adapt.

The process of Risk Analysis is by numerical format.

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

The above risk analysis is incorporated into the School's **Safe Work Practice Sheets**

The Analysis takes into account who is exposed
The initial Risk Rating before controls are implemented
The Reduction Risk Rating after controls is in place

A risk is the probability or likelihood of a hazard actually causing a degree of injury or damage.

A hazard is anything that can potentially cause harm.

After a hazard has been identified, it is evaluated in order to assess what its impact would be if steps to control it were not taken. In practical terms, one determines the likelihood of an accident happening and the consequences of it happening.

There are inevitable difficulties in assessing risks. Some risks such as exposure to e.g.- Chemicals / Manual Handling / Lone Workers / Trainees may require physical or organisational measurements to be taken. Risk depends on many (often related) circumstances:-

Is anyone exposed to the hazard? Is the hazard likely to cause injury?
Is the hazard well controlled? Is the level of supervision adequate?
How long people are exposed and what are are the levels of exposure that should not be exceeded (e.g. Equipment, chemicals, poor lifting techniques)

Risk Assessment will be carried out at least once a year in all of the different sites in the School. The Risk Assessment process adopted by the School of Engineering identifies hazards posed by activities within the School and quantifies the risk posed by same.

In most cases these hazards can be controlled by adhering to procedures detailed in the School's **Safe Work Practice Sheets** (Appendix III) which are developed on an as-needed basis and identified through regular area-by-area risk assessment / Inspection. As part of the annual Risk Assessment process, all Safe Work Practice Procedure Sheets will be reviewed and updated to ensure that they take account of any changing circumstances that have arisen during the course of the year, any changes to work practices, introduction of equipment, changes in legislation will also require updating as is necessary.

Safe Work Practice Sheets are available in the School of Engineering Administrative office, Heads of Departments, Workshop Locations, Laboratories and on the Institute's website

The list of these SWPS is also included in Appendix III of this document. More generic college wide SWPS are also to be adhered to and are available at:

The primary objective of the Safe Work Practice procedures is to eliminate, reduce or control any risks posed as a result of the hazards that exist throughout the School. These Safe Work Practice Procedures are also made available to all staff and students operating in any lab, workshop or classroom environment that is the subject of a risk assessment and safe work practice procedures.

Adherence to the Safe Work Practice Procedures is the primary means of risk control in the School of Engineering. However, hazards may arise from time to time, which are not covered by

these procedures. Under Section 13 (h)(i - iii) of the 2005 Safety, Health & Welfare at Work Act, all staff are required to report any hazards that they notice or observe to their employer. Within the School of Engineering, any hazard noted or observed by any member of staff must be reported to their immediate superior.

Incidents and Dangerous Occurrences must be notified to the relevant supervisor using the forms included in Appendix IV.

Back to contents page

5.0 Functional Area Safety Records

Functional Area safety records include but are not limited to the following documents:

1. Ancillary Safety Statement, including Safe Work Practice Sheets
2. Health and Safety Training Records
3. Accident, Incident and Near Miss Dangerous Occurrence Reports
4. Functional Area Safety Committee Meeting Records
5. Inspection Certificates (where applicable)

(1-5) can be located as follows for:

(a) **The School of Engineering**

Record Type	Building	Room No.	Contact
Ancillary Safety Statement, including Safe Work Practice Sheets	North Block	School of Engineering Office, NC121	Orlagh Devine orlagh.devine@dkit.ie, ext. 2894
		Offices	
	North Block	Mr. Eugene Roe (HOS) NC126	eugene.roe@dkit.ie ext. 2893
		Mr. Simon O'Neill (HOD) NC124	simon.oneill@dkit.ie ext. 2847
		Mr. Noel McKenna (HOD) NC127	noel.mckenna@dkit.ie ext. 2891
		Mr. Pat McCormick (HOD) NC128	pat.mccormick@dkit.ieext. 2551
		Mr. Padraig McGuigan (Section Head) NW207	padraig.mcguigan@dkit.ie ext. 2698
		Mr James Mulvany (Section Head) NW216	james.mulvany@dkit.ie ext 2520
	South Block	Mr. John Doherty (Section Head) S120	john.doherty@dkit.ie ext. 2692
Training Records	North Block	School of Engineering Office, NC121	Orlagh Devine orlagh.devine@dkit.ie, ext. 2894
Incident & Accident Reports	North Block	School of Engineering Office, NC121	Orlagh Devine orlagh.devine@dkit.ie, ext. 2894
FASC Meeting Records	North Block	School of Engineering Office, NC121	Orlagh Devine orlagh.devine@dkit.ie, ext. 2894
Inspection Certificates	North Block	School of Engineering Office, NC121	Orlagh Devine orlagh.devine@dkit.ie, ext. 2894

Back to contents page

APPENDICES

Appendix I

Functional Area Safety Committee 2015/2016

1. Eugene Roe, Head of School of Engineering (Chairperson)
2. Simon O'Neill, Head of Department of Engineering Trades
3. Pat McCormick, Head of Department of Mechanical and Electronic Engineering
4. Padraig McGuigan, Head of Section: Mechanical Engineering
5. James Mulvany, Head of Section: Electronic Engineering
6. Noel McKenna, Head of Department of the Built Environment
7. John Doherty, Head of Section Carpentry/ Joinery / Plumbing
8. Orlagh Devine, Senior Administration
9. Jim Connolly, Senior Technical Officer
10. Paul Egan, Lecturer
11. William Lyons, Lecturer
12. Brendan Walsh, Lecturer
13. Dermot Clarke, Lecturer
14. Paul Durcan, Lecturer

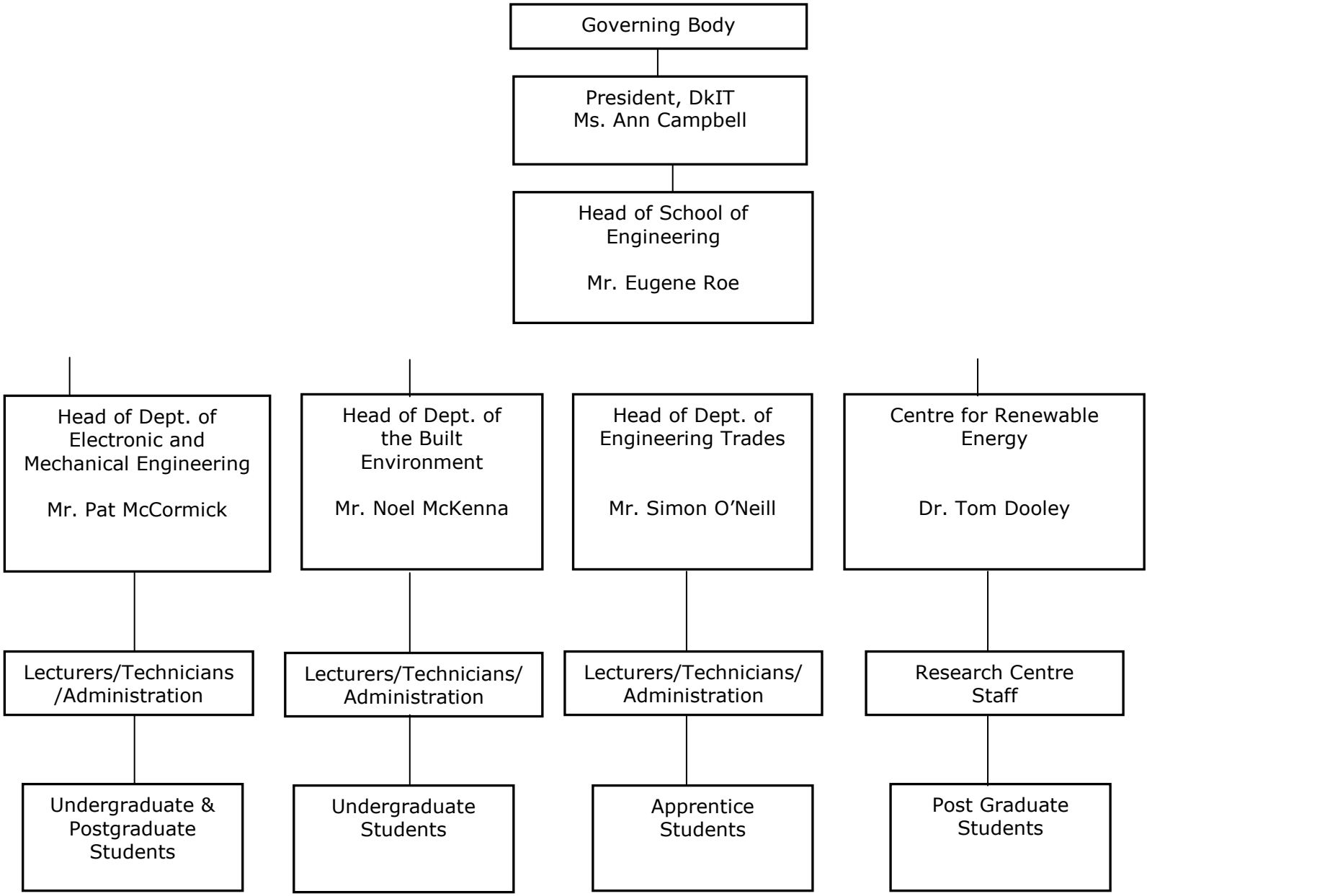
Back to contents page

Appendix II

List of Responsible Persons within the School of Engineering

Head of School	**Mr. Eugene Roe**
Head of Dept of Mechanical & Electronic Engineering	**Mr. Pat McCormick**
Head of Section: Mechanical Engineering	**Mr. Padraig McGuigan**
Head of Section: Electronic Engineering	**Mr. James Mulvany**
Head of Dept of the Built Environment	**Mr. Noel McKenna**
Head of Dept of Engineering Trades	**Mr. Simon O'Neill**
Head of Section: C&J and Plumbing	**Mr. John Doherty**
Centre for Renewable Energy at Dundalk Institute of Technology (CREDIT)	**Dr. Tom Dooley**

Back to contents page



School of Engineering
Safety Management Organisation Chart

Appendix III

Safe Work Practice Sheets

SWPS ID	Plumbing Labs/Workshops	P1238 / P1239 / P1240 / P1241 / P1242 / P1244

General Routine Safe Work Practice Sheets Used in this Area:

GEN 001	General Rules
GEN 002	Access and Egress
GEN 003	Fire Safety
SWPS 08	Electrical Safety
GEN 005	Chemical Agents
GEN 009	Slips, Trips and Falls
GEN 010	Lone Person Working
SWPS 013	Manual Handling
GEN 025	General Workshop Safety
GEN 026	Use of Hand Tools
SWPS 007	Safe Use of Ladders / Stepladders
GEN 027	Cutters, Scalpels and Stanley Knives

Engineering Specific Safe Work Practice Sheets Used in this Area:

PLU 001	Plumbing Engineering Arc Welding
PLU 002	Plumbing Engineering Mig and Tig welding
PLU 003	FMB Phoenix, Manually Operated Band Saw
PLU 004	Grit, Belt and Grinder
PLU 005	Mobile Air Compressor
PLU 006	Bench & Pillar Drilling Machines
PLU 007	Gas Welding
PLU 008	Ridgid, Mobile 1224 Threading Machine
PLU 009	FMB Jupiter, Automatic Assist Band Saw
PLU 010	Rem Push, Pressure Test Buckets
PLU 011	Ridgid, Manual Hydraulic Pipe Bender
PLU 012	Ridgid, Portable Tristand
PLU 013	Record, Portable Free Standing Bender
PLU 014	Manually Operated Hand Held Tools
PLU 015	Test Heating Systems
PLU 016	Portable Mig Welder Gas Cylinder Replacement
PLU 017	Corded and Cordless Hand Held Drills
PLU 018	Workshop Floor Cleaning
PLU 019	Gas Safety
MOT 049	Degreasing Bath
SWPS 013	Noise
SWPS 015	General Health and Welfare Provisions
SWPS 016	Emergency Response
SWPS 017	Emergency Contact Numbers

Back to contents page

Appendix III

General Routine Safe Work Practice Sheets

Safe Work Practice Sheet General Rules	Ref: SWPS 001
	Date: July 09
	Assessed by: E.Roe

Hazards

There is always an ever-present risk of accidents occurring due to lack of vigilance and awareness of staff and students

Person Exposed to Risk

✓ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Everyday working environment

Controls

- Smoking, eating and drinking is prohibited in all areas other than designated
- areas. Smoking is prohibited in all areas.
- Exercise care when opening or closing doors on entering or leaving rooms. Never run.
- Conduct yourself in a responsible manner and do not act in a way that could be dangerous to yourself or others. Refrain from indulging inappropriate behavior as it could have serious consequences.
- No student or member of staff should ever work alone in a Laboratory, Workshop, Service Duct or Plant Room, without prior notification to Line Manager.
- All bags and coats are to be left in designated areas. All work and teaching areas should be kept tidy when in use and left tidy when finished.
- All accidents however minor must be reported to immediate superior.
- No member of staff or student is to interfere with any workplace equipment.
- Report any malfunctioning or dangerous or defective equipment to immediate supervisor without delay. Never attempt to effect repairs, no matter how trivial.
- Become familiar with position and use of safety equipment for each area in which you work.
- Study carefully and obey the Safe Work Practice Sheets for any area in which you are required to work.
- Co-operate with Employer in fulfilling duties imposed under Section 13(1)(a- h) of the Safety, Health & Welfare Act 2005

Checks & Inspections

Constant vigilance and awareness

Information, Instruction & Training

Not applicable

Personal protective equipment required (last resort)

Not applicable

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	3	=	Risk Factor	6 high risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 low / medium risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Access and Egress	Ref: SWPS 002 Date: July 09 Assessed by: E.Roe

Hazards

Inadequate access and egress in the workplace can result in slips, trips and falls. Obstructed access roads and paths can also pose a risk of injury to pedestrians and to vehicle operators and can also delay emergency escape and emergency vehicle access.

Person Exposed to Risk

✓ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Everyday working environment on campus

Controls

1. All doorways and access points in the workplace must be kept clear of obstructions.
2. All passageways and pedestrian routes must be kept clear from obstructions.
3. Materials must be stored in designated areas away from pedestrian and vehicular routes.
4. All stairways with more than 3 steps should be provided with handrails and maintained in good condition.
5. Adequate lighting must be provided throughout the Institute at all entry points, exit points and along corridors and passageways.
6. Workplaces must be kept clean and tidy at all times.
7. All spillages must be cleaned up immediately.
8. All cabling and hosing must be neatly tied off or ramped in order to prevent tripping.
9. Workplace floors must be kept in a level and even condition where possible in so far as is practicable. All holes and trip hazards should be removed, filled in or covered.
10. Trip hazards which cannot be removed must be clearly visible or signed as such.
11. Chairs, desks or drawers should never be used to access shelving or any other elevated area.
12. Stepladders or kick stools must always be used.
13. Vehicle drivers must exercise extreme caution when driving on Institute site.

All defects in flooring, lighting, stairwells, etc must be reported to the Estates Office via the Maintenance Request online system.

Checks & Inspections

Constant vigilance and awareness.

Information, Instruction & Training

Not applicable

Personal protective equipment required (last resort)

Not applicable

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	3	=	Risk Factor	6

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Fire Safety	Ref: SWPS 003
	Date: July 09
	Assessed by: E.Roe

Hazards

The outbreak of fire can lead to:

- Serious bodily injury or fatality
- Damaged property or plant
- Disruption of premises causing loss of facilities **Person**

Person Exposed to Risk

✓ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

There is always an ever-present risk of fire occurring in all workplaces. Common fire hazards include improperly stored combustible or flammable materials, the use of naked flames, faulty electrical equipment, the use of flammable fuels, the use of inappropriate equipment, the build up of flammable materials or wastes in the workplace and smoking in undesignated areas. The accidental release of chemical material may also lead to the outbreak of fire, especially if the material is pyrophoric, extremely flammable or is a strong oxidiser.

Controls

The Institute is committed to providing a fire safety programme that guards against the outbreak of fire in all areas and also makes provisions for the safety of all persons in the event of a fire. The Institute would like to reiterate to all staff at this point that every employee has a responsibility to guard against the outbreak of fire in the workplace through the implementation of good fire safety practises and where applicable the adherence to the control measures outlined below.

Employees should also refer to specific fire risk assessments that apply to their specified places / type of work.

Fire Detection, Equipment & Emergency Lighting

Layout drawings, detailing the location of the fire detection and alarm systems, throughout the campus have been prepared by the Estates Office. Copies of these drawings are held by members of the Caretaking Staff, to assist in the identification of the location of any alarm signal.

Fire detection and alarm systems are installed and maintained in accordance with current standards. Emergency lighting systems are in operation in all parts of the Campus. These are installed to and regularly maintained in accordance with current standards.

Fire mains and Hydrants and Fire Hose Reels are inspected and maintained in accordance with current standards The date of the most recent inspection is noted on each hose reel. Test reports on

ring mains and hydrants are held in the Estates Office and Fire Registers.

Portable fire extinguishers are inspected and maintained in accordance with current standards. The date of testing is noted on each extinguisher.

Copies of all testing and certificates are held in Estates Office in the Fire Register.

Emergency Response

1. Each building has in place an emergency plan detailing the response to be taken in the event of the sounding of a fire alarm or the discovery of a fire. Refer to http://ww2.dkit.ie/about_dkit/health_safety/emergency_evacuations_procedures_manual for further details.
2. Fire response procedures are displayed in prominent locations within the area covered by their provisions.
3. Emergency response procedures are tested at least annually by use of a fire drill.

Procedural Controls

1. It is prohibited to use a naked flame (outside of a laboratory area) or to engage in 'hot' work (outside of designated workshops) anywhere within the Institute without first obtaining a 'Hot Work Permit' from the Institute Estates Office. Hot work is defined as grinding, welding (all types), hot cutting, and any other work with the potential to generate a spark or an ignition source.
2. It is prohibited to disengage a fire detection device, remove a fire extinguisher from its designated location or to isolate a component of a fire safety system without the express permission of the Institute Estates Office.

Training

1. It is the responsibly of individuals within the Institute to ensure that they are familiar with the provisions of any relevant emergency procedures.
2. Fire safety training is available through the Staff Training & Development Officer for all interested parties.

Means Of Escape

1. All Institute premises will be provided with clearly signed suitable means of escape and emergency exits for use in the event of a fire.
2. All escape routes and emergency exits throughout a building / premises must be kept clear at all times.
3. It is the responsibility of all Institute employees to ensure that escape routes and emergency exits in their working area are kept free from obstruction.
4. No individual may obstruct or remove from service an escape route or emergency exit without prior arrangement with the Institute Estates Office.
5. In the event that employees have a concern regarding means of escape then they must contact their manager immediately. Urgent concerns can be conveyed directly to the Institute Estates Office.

Hazardous Agents

1. As part of a hazardous agent risk assessment fire safety provisions for handling the agent(s) in question must be detailed.
2. Flammable materials may only be handled and stored in accordance with the requirements of their Material Safety Data Sheets, with due regard being paid to their fire risks.

3. Flammable materials must be stored in a suitable storage area. The requirement for low voltage or flame proof wiring should be considered.
4. The large scale storage of flammable materials (>200l / kg) in a single location requires completion of a specific risk assessment prior to storage taking place.

1. Where new buildings are constructed by the Institute or existing buildings are substantially modified the requirements of Part B of the Building Regulations (1997) Technical Guidance Documents will be adhered to.
2. Smoking is prohibited in all indoor workplaces within the Institute.
3. Employees are encouraged to make themselves familiar with the location of alarm activation points and escape routes in their working areas.
4. Employees must not attempt to repair any electrical equipment unless they are competent to do so. All electrical repairs and installations within the University must only be completed by a competent person, following the rules laid down in the National Rules for the Electrical Installations, as prepared by the Electro-Technical Council of Ireland.
5. The amount of combustible materials stored within the workplace should be kept to a minimum.
6. In the event of an evacuation all persons must leave the workplace without exception and assembly at their designated assembly point.
7. Employees must adhere to any instructions given by Institute Fire Wardens or emergency services personnel in the event of an emergency.
8. Persons must not fight workplace fires unless they have been trained to do so and it is safe to do so.

All employees are reminded of their statuary obligation to protect their own and their co-workers safety by guarding against the outbreak of fire in the workplace through the use of safe systems of work

Checks & Inspections

Information, Instruction & Training

- Fire Drills
- Fire Warden Training
- Use of fire fighting equipment

Personal protective equipment required (last resort)

Not applicable

Initial Risk Rating (without any control measures)

Probability : **2** x Severity **3** = Risk Factor **6 high risk**

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Electrical Safety	Ref: SWPS 08
	Date: March 2011
	Assessed by: P. Killeen Approved by: E. Roe

Hazards

- Electrocution
- Electric shock
- Burns
- Inadvertent starting of machines

Person Exposed to Risk

✓ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

A range of electrical appliances are used in the Institute. This Safe Work Practice Sheet covers Portable Appliance Testing and general electrical safety

Controls

- **General**
- Installation or repair work may only be carried out by qualified electricians.
- New installations will comply with the requirements of the General Application Regulations and the Electro-Technical Council of Ireland publication 'National Rules for Electrical Installations.
- Flexible cables will be adequately protected against external mechanical and heat damage.
- Flexible cables should not be run across floors or walkways. Where electrical cables have to be run across open floor areas ramps will be placed over them to prevent the tripping and damage to cables.
- Adequate fusing or excess protection, e.g. circuit breakers, must be provided for all fixed and portable equipment.
- RCDs should be tested at the beginning of each term.
- Areas around fuse boards will be kept clear of flammable materials and the fuse board cabinets will be kept closed at all times.
- Work on electrical appliances by contractors or work requiring isolation of electrical supplies requires an Electrical Work Permit. Buildings and Estates must be contacted.
- Staff must report defective equipment and take out of service Portable AC electrical appliances that may be subject to deterioration as a result of their use such as power supplies and oscilloscopes must be visually inspected and tested at regular intervals. The schedule of testing should be determined by following the Electrical Technical Councils guidelines available at www.etci.ie/docs/ET215(2008).pdf. A record of testing and inspection must be kept by the relevant departments.
- Live working is prohibited except in circumstances where it is not possible to carry out the work in any other manner.

The following precautions must include as appropriate;

- the use of people who are properly trained and competent to work safely on live equipment
- the provision of adequate information to the person carrying out the work, about the live parts involved, the associated electrical installation and the likely risks, the use of suitable tools including insulated tools, equipment and protective clothing
- For example, insulating gloves, insulating boots and insulating rubber matting, the use

of suitable insulated barriers or screens,
- the use of suitable instruments and test probes,
- accompaniment by a second person who is trained and able to act in an
- emergency, e.g. switch off power and give first aid treatment for electric shock,
- effective control of any area where there is danger from live parts.
- A safe system of work must be drawn up.

Checks & Inspections

• Portable appliance testing must be carried out on certain portable AC electrical equipment
• RCDs tested once per term
• Electrical circuits tested every 3 years

Information, Instruction & Training

- Trained First Aider/CPR (available when live working is carried out)

Personal protective equipment required (last resort)

Safety boots

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	2	x	Severity	2	=	Risk Factor	4 Medium Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Chemical Agents	Ref: SWPS 05
	Date: 20/04/2011
	Assessed by: P. Killeen Approved by: E. Roe

Hazards

Exposure to certain chemical agents can cause a range of injuries from minor to serious long term damage. Exposure may be through ingestion, inhalation, skin absorption, absorption through the mucous membranes.

Person Exposed to Risk

☑ Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Staff and students may be exposed to a range of chemicals in the School including but not limited to;

- Petrol
- Cutting/cooling fluids
- Ferric chloride
- Solder
- Glues
- Cement/ Bitumen
- Hardwood dust
- Welding fume

Exposure frequency and duration is variable depending on the activity.

Controls

- Material safety data sheets are obtained for all potentially hazardous chemicals or chemical agents and hard copies are kept with the School Safety Statement.
- A chemical agents risk assessment form (attached to this Safe Work Practice Sheet) is completed for each activity involving the use of chemicals as required by the Chemical Agents Regulations.
- Where a number of chemicals are associated with an activity they must be assessed together.
- The hazards associated with each chemical substance and the precautions that must be taken are brought to the attention of the users through the chemical agents risk assessment form.
- Where necessary local exhaust ventilation is installed and maintained.
- Appropriate personal protective equipment (PPE) is provided for staff. Students are alerted to the requirement for PPE.
- Hazardous chemicals are stored in accordance with the requirements set out in the Material Safety Data Sheet. Chemicals re not decanted into unmarked containers. Where chemicals are placed in other containers an appropriate hazard warning label is attached.
- Gas lines are marked with the gas name at intervals along their length.

Checks & Inspections

- Local exhaust ventilation should be checked annually to ensure it is extracting efficiently.

Information, Instruction & Training

The hazards associated with each chemical substance are brought to the attention of the users (Senior technical staff are responsible for informing other technical staff, lecturers are responsible for informing students)

Personal protective equipment required (last resort)

Care must be taken in the selection of personal protective equipment, e.g. select the correct glove to ensure that the chemical does not readily break through

Personal protective Equipment should be CE marked.

Initial Risk Rating (without any control measures)

Probability : **2-3** x Severity **2-3** = Risk Factor **4-9**

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability : **variable** x Severity **variable** = Risk Factor **variable**

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Form 2: DKIT School of Engineering Chemical Agents Risk Assessment.
Welding Wire / Welding Rods

---

1. Location: PJ Carrolls - Plumbing Workshops

2. Assessment carried out by: Paula Killeen

3. Date 20/04/2011

4. Short description of the process involving the use of the chemical(s) –

Carrying out demonstrations and Welding Operations with various Techniques

Welding fumes and gases cannot be classified simply. The composition and quantity of both are dependent upon the material being welded, the process, procedures and electrodes used. Other conditions which also influence the composition and quantity of the fumes and gases to which workers may be exposed include: Coatings on the material being welded (such as paint, plating, or galvanizing), the number of welders and the volume of the worker area, the quality and amount of ventilation, the position of the welder's head with respect to the fume plume, as well as the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapors from cleaning and degreasing activities) When an electrode is consumed, the fume and gas decomposition products generated are different in percent. Expected fume constituents of Aluminum Wire would include: primarily aluminum oxide; secondarily magnesium oxide

5. Hazardous Chemical Agents to be used	**Amount %**	**Physical Form**
The principal constituents of the Aluminum Wire Aluminum Silicon Magnesium	**Approx**: Variable	Solid

The principal constituents of Carbon Steel Gas Welding Rods Solid carbon steel, (with or without a copper protective coating), Constituents of the fume will be iron and manganese oxides and silicates, mainly in the form of complex compounds.	**Approx**: Variable	Solid

6. Person Exposed to Risk

☑ Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

7. Indicate Hazard Classification (for all chemicals used)

Explosive: ☐ Oxidising: ☐ Extremely Flammable: ☐

Highly Flammable: ☐ Flammable: ☐ Very Toxic if ingested: ☐ Toxic: ☐

Harmful: ☐ Irritant: ☑ Sensitiser: ☑

Corrosive: ☐ Teratogen: ☐ Hazardous to the environment: ☐

8. Potential routes of exposure

Inhalation: ☑ Skin Contact: ☑ Ingestion: ☐ Sharps: ☐

9. Control Measures

9.1. PPE Required:

☑ Welding Gloves
☑ Face shield / Filter glass -appropriate optical welding filter
☑ Screens / flash goggles.- -appropriate optical welding filter
☑ Welding apron
☑ Safety Boots
☑ Barrier Creams
Other: Arm protectors
Overalls

9.2. Engineering Controls: Fume Hood: ☐ Local Exhaust Ventilation at source ☑
Train the welder to keep their head out of the fume plume. Keep exposure as low as possible.

9.3. Emergency Response

First Aid *(consult relevant MSDS for further information)*
An MSDS must accompany all victims of exposure when seeking medical advice. Always consult an MSDS following an exposure to a hazardous agent.

Eye Contact:
Skin Contact:

Arc rays can injure eyes and burn skin. Submerge affected area in cold water until burning sensation ceases. Seek medical attention immediately

Electric shock can kill - welding should **not** be performed in damp conditions or with wet clothing, or when in cramped positions or if there is a high risk of accidental contact with work piece,

Effects of Overexposure:

Inhalation:

Short term (acute) overexposure to welding fumes may result in discomfort such as metal fume fever, dizziness, nausea, or dryness or irritation of nose, throat, or eyes. May aggravate pre-existing respiratory problems (e.g. asthma, emphysema).

Long term (chronic) overexposure to welding fumes can lead to siderosis (iron deposits in lungs) and may affect pulmonary function.

Waste Disposal: Discard any product, residue, disposable container in an environmentally friendly manner in line with the Institutes disposal arrangements.

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	2	=	Risk Factor	4 MEDIUM

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	variable	x	Severity	variable	=	Risk Factor	variable

Back to contents page

Safe Work Practice Sheet Slips, Trips & Falls	Ref: SWPS 009
	Date: July 09
	Assessed by: E.Roe

Hazards

Slips are caused by the presence of substances such as water, grease, oil, fats, soaps, granules, plastic sheets, packaging, leaves, ice etc deposited on the floor arising from the working conditions or in some cases the weather. Slip hazards can be found on both wet and dry surfaces.

Trips can be caused by such features as electric cables or compressed-air lines across walkways, curled-up or worn carpets, uneven floor surfaces and steps, or discarded work items.

Falls may be caused by slips or trips or when adjacent surfaces are at different levels leading to persons losing their balance because they had not anticipated the change in level. Slips or trips on stairs are particularly dangerous.

The hazards listed above are so ordinary and commonplace that people often accept them as part of normal living until they or someone close to them has an accident and is seriously hurt.

Person Exposed to Risk

✓ Students ✓ Employees ✓Public ✓ Contractors ✓ Visitors

Work Description
Everyday activity on campus

Controls

Observe & Adhere to Health & Safety Authority Guidelines as below

- The starting point lies with everybody becoming aware of these hazards and taking appropriate action.
- Management must take responsibility for controlling these hazards and must assign appropriate responsibilities to staff. Clear policies should address what people need to do to identify and monitor slip, trip and fall hazards and the action to take once they identify a hazard.
- Slips, trips and falls must be considered in the workplace hazard assessment that is required by law. This assessment should take account of:
- The type of hazard including how likely it is to occur
- Characteristics of the workplace such as the nature and condition of floor surfaces, quality
- of lighting
- Influence of the weather (e.g. rain, frost or leaves)
- Maintenance and cleaning procedures
- Workplace users
- Where workplaces are being modified or constructed there is an excellent opportunity to prevent slips and trips by selecting appropriate floor materials that are slip resistant and
- installed so as to minimise trip hazards.

Nature of the hazard

In some work areas such as certain food processing activities slip hazards may not always be completely avoidable and the control measures will need to assume the hazard is always present.

- In other situations the floor surface may be non-slippery for most of the time but leaks from
- plant or bad weather may lead to the creation of a slip hazard. It only takes a small amount
- of liquid on a smooth floor to create a hazard. In these situations the immediate control
- measures will focus upon detection of liquids and the actions to be taken to remove the hazard or reduce it by the provision of warnings and cordoning off areas.
- Permanent trip hazards should be removed as far as possible by such measures as the rerouting of

pipes or cables, provision of more sockets to reduce long cable lengths, use of battery powered tools and the repair of uneven floor and stair surfaces.
- A good housekeeping regime will go a long way to reduce intermittent hazards from badly stored or discarded items. Materials should never be left or stored on stairs.
- Where changes in floor level cannot be avoided they should be clearly marked and the provision of handrails to control the movement of persons may be appropriate.
- Changes in level should not take people by surprise.

Characteristics of your workplace

- It is better to eliminate slip hazards by choosing a suitable surface rather than depending on cleaning regimes to keep a floor safe. Building designers should ensure that the intended appearance of a building does not compromise the choice of inherently safer floor options.
- Macro-rough surfaces (i.e. those that contain an aggregate) are recommended for areas that are expected to experience high levels of contamination. Floors that have hard particles throughout their thickness can maintain their slip resistance throughout their life but floors with a superficial layer of grit or slip resistant paint can become slippery as the layer is worn away.
- Profiled floors (ridges or blisters) are sometimes used in areas subject to slip hazards but these can become slippery over time as the profile becomes worn and contaminants can be left trapped within the profiles.
- Carpets or mats placed on smooth floors can pose both slip and trip hazards and, if used, should be securely fixed to the floor at their edges and at any joints.
- The slip resistance of steps is improved by the fitting of nosings which protect the edge of the step from wear and help users to the place their feet more accurately on it. Care has to be taken that the nosing itself does not constitute a hazard.
- The design of stairways in buildings will need to take account of Technical Guidance Documents B (Fire Safety), K (Stairways, etc) and M (Access for People with Disabilities) produced by the Department of Environment, Heritage and Local Government.
- Adequate lighting, including the avoidance of glare and shadows, is necessary to expose slip /trip hazards. Higher lighting levels are needed where older people are present.
- Poorly sited or excessive signage can distract people who are then less likely to notice slip or trip hazards.
-

The weather

- Building entrances can become slippery due to the ingress of moisture, mud and debris in bad weather. Measures such as having a slightly higher internal air pressure in the vestibule or the provision of a suitably designed shelter or canopy above the entrance can reduce the ingress of rain. Another simple measure is the installation of doors that do not blow open in the wind.
- Where matting is provided it should be aligned with the way pedestrians use the entrance. It should be laid immediately inside the door entrance and extend across the full width of the door. The existence of wet footprints beyond the entrance or matting is usually a sign that existing controls are not sufficient.
- Where mats in mat-wells are prone to becoming waterlogged the provision of drainage holes should be considered.

Maintenance and cleaning procedures

- Floor cleaning procedures should be incorporated in the operation and maintenance procedures for a company. The procedure should specify the methods and materials to be used as the use of the wrong cleaning method can increase the area of hazard and level of risk. The cleaning agent used should be suitable for the floor surface and the type of contamination encountered. A build -up of polish or detergent residues should be avoided. The drying of floors after cleaning is most important for the control of slip hazards. Staff should be informed, trained and supervised with regard to:

- Cleaning and drying floors
- Importance of dealing with spillages/leaks

"Cleaning as you go"

- Reporting hazards as they arise and any equipment defects contributing to slip hazards or problems with the cleaning equipment itself
- Prompt incident reporting
- Use of suitable footwear
- Cleaning should, where practical, be carried out when there are less people around.
- Cleaning activity should be organised so as to provide dry paths through areas being cleaned. It is better to restrict access to areas that are being cleaned by the use of barriers rather than depending on the use of cones or signs alone.
- Research has shown that forewarning people of a hazard can lead them to modifying their gait so as to anticipate the situation but attention must be paid to removing signs when the hazard has been dealt with; otherwise people will tend to ignore them if their experience tells them that the signs are always displayed irrespective of the conditions underfoot.
- Where existing unsuitable floor surfaces are identified, the hazard can be reduced by controlling contamination, using mats, treating the surface or in some cases replacing it altogether with a safer material.

Workspace users

- Where there is control over access to the workspace, the risk of falls can be reduced by the introduction of a "sensible shoe" policy i.e. no high heels or loose fitting shoes. In addition: Shoe soles should have deep cleating and a well defined tread pattern.
- Safety footwear may not always be slip-resistant and purchasers should check that it is suitable for the conditions under which it is going to be used.
- Slip resistant shoes will not remain so if they become worn or contaminated underfoot.
- The risk of slipping while barefoot is often greater than when wearing shoes, so this factor needs to be taken into account in shower areas and in other tiled areas associated with swimming pools, etc
- Disposable plastic overshoes can have poor resistance on smooth floors
- In other workspaces where there is general public access there will greater dependence on the selection of floor material in combination with maintenance regimes to control slip, trip and fall hazards.

Checks & Inspections

- Visual checks and Risk Assessments as required in each Functional Area

Information, Instruction & Training

Not applicable

Personal protective equipment required (last resort)

Not applicable

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	3	=	Risk Factor	6 High RISK

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk

Possible	2	Serious	2	4	Medium Risk
Unlikely	1	Minor	1	6-9	High Risk
Risk Factor = Probability x Severity					

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	2	=	Risk Factor	2 Low Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Lone Person Working	Ref: SWPS 010
	Date: March 09
	Assessed by: E.Bell

Hazards

- Persons working alone using hazardous chemicals or equipment may not be able to summons
- help in the event of an accident or spillage.
- Certain exit routes may not be available during out of hours working.
- Entrapment in areas or spaces due to negligence or accident

Person Exposed to Risk

☐ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Definition of lone working

Lone working/out of hours working is defined as follows

Any Laboratory / Experimental work carried outside of 9 am - 5 pm Monday – Friday when there are no persons aware of your work within calling distance.

Any other work undertaken outside of 7 am-10 pm Monday – Friday and during the hours of 9am - 6pm on Saturday, Sunday & Bank Holidays.

All buildings must be vacated by 6pm on Saturdays, Sundays and Bank holidays to allow for full lock up. At Christmas & Easter the campus will close down for a specified number of days and access will only be granted under exceptional circumstances .

Lone working includes carrying out field work in hazardous terrain or in areas where there is a risk to personal safety.

Lone working may also include carrying out routine maintenance work in isolated areas such as roofs or plant-rooms.

Controls

General

- Lone working in laboratories is not permitted unless a risk assessment has been carried out in conjunction with an academic supervisor and the risk is deemed to be low. Typical work that may be allowed includes work on PCs, microscope work, viewing plates, taking items in and out of incubator.
- The supervisor may allow working on high risk activities if the person is competent (typically an experienced member of staff) and a buddy is in attendance.
- The supervisor may allow work on medium risk activities for competent researchers (with or without a buddy present).
- Where a person is working alone without other persons within shouting distance then a phone or mobile phone must be readily available. They must also notify a colleague of their intention, how long they intend to be working in the isolated area, and check back with the colleague at an agreed, pre-determined time, when the work in the isolated area is complete.
- Field work in hazardous terrain or where there is a risk of personal injury as a result of confrontation must not be carried out alone (see SWPS Fieldwork).
- Hazardous experiments must not be left unattended overnight.

Out of hours access

- If out of hours work is required permission must be sought from the Head of Department.

- All persons requiring 'Out of Hours' access must be aware of what to do in the event of an emergency, i.e. what emergency exit doors are available, how to raise the alarm, where to go etc.
- The Head of School must provide Security with the names and locations of persons working out of hours. The person must contact Security on leaving the building.
- Persons authorised to work out of hours must not admit any other person to the building out of hours. Persons claiming to be authorised but without a swipe access card or key should be referred to Security for access.
- Where the fire alarm is activated in the building after hours, those evacuating the building must assemble at the building fire assembly point. Otherwise emergency services will assume that they are still in the building.
- Researchers or Staff members who in exceptional circumstances, due to the nature of their research work, require access during 'Lock-Up' must seek authorisation for such access from Buildings and Estates.

Checks & Inspections

Visual checks and Risk Assessments as required in each Functional Area

Information, Instruction & Training
Not applicable

Personal protective equipment required (last resort)

Not applicable

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	2-3	=	Risk Factor	4-6

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	2-3	=	Risk Factor	2-3

Risk Assessment Review

As and when process changes or yearly

Lone working/Out of Hours working

	Name	Position	Date
Prepared by			
Reviewed by:			
Approved by			

Revision	Date	By	Description
1			
2			
3			

Back to contents page

Safe Work Practice Sheet Manual Handling	Ref: SWPS 013
	Date: March 09
	Assessed by: E.Bell

Hazards

Incorrect method of lifting
Attempting to lift something which is to heavy
Lifting sharp/awkward shapes

The main injuries associated with manual handling and lifting are:
Back strain, slipped disc, hernia,
Lacerations, crushing of hands or fingers.
Repetitive Strain Injury.
Bruised or broken toes or feet.
Various sprains, strains, etc.

Person Exposed to Risk

☑ Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Staff and students may be required to lift or move heavy items from time to time including large pieces of wood, bags of aggregate, metal piping, moving rotating electrical boards, pushing/pulling trolleys

Controls

- Risk assessments must carried out on manual handling tasks normally performed by staff As a rule of thumb an assessment is required where weights are above the guideline weights set out by the Health and Safety Authority and reproduced overleaf in figure 1. The assessment should be in writing and set out on form 1 Manual handling assessment attached to this procedure.
- Manual handling will be avoided where possible. Mechanical or other means of moving or lifting will be used such as trolleys and winches.
- Staff will be provided with manual handling training where manual handling is a regular part of their job.
- Seek assistance where possible when lifting heavy items.
- Consideration must be given to the arrangement of stored items so that heavier items are not stored near floor or above shoulder height.

Checks & Inspections

- Senior technician to monitor that correct manual handling technique is being used.
- Trolleys should be visually checked before use. Trolleys with damaged wheels should be taken out of service.

Information, Instruction & Training

- Manual Handling Training provided to relevant staff

Personal protective equipment required (last resort)

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	**High Risk**

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability : **2** x Severity **1-2** = Risk Factor **2-4 Low-medium risk**

Risk Assessment Review

As and when process changes or yearly

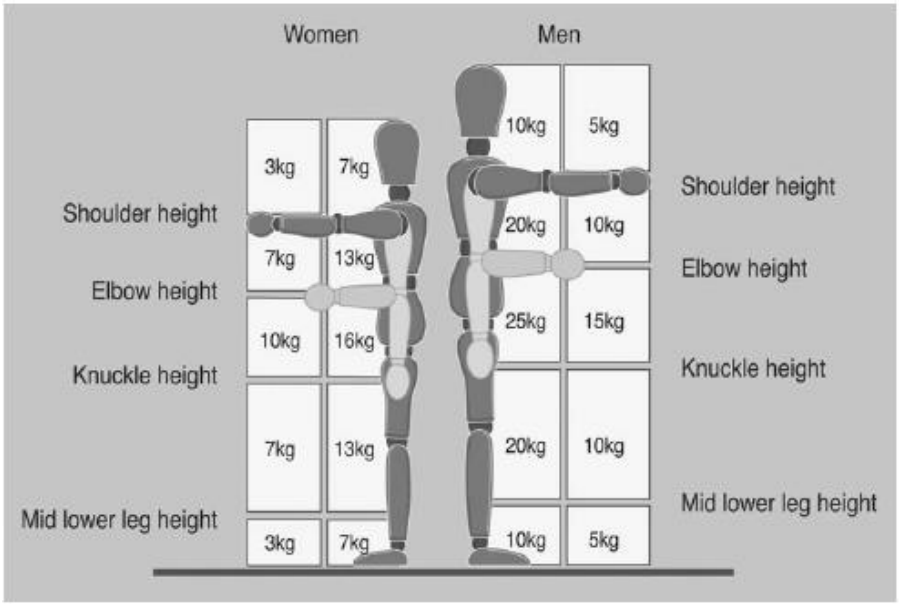


Figure 1. Guideline weights issued by the Health and Safety Authority.

Back to contents page

Form 1 Manual handling risk assessment

Section A – Preliminary *** Circle as appropriate**

Job Description Factors beyond the limits of the guideline weights? (See SWPS Manual handling)	Is an assessment needed? (i.e. Is there a potential risk for injury, and are the factors beyond the limits of the guidelines?) Yes / No*

If 'yes' continue. If 'no' the assessment need go no further.

Operations covered by this assessment (detailed description): Locations: Personnel involved: Date of assessment:	Diagrams or other information:

Section B – See over for detailed analysis

Section C – Overall assessment of the risk of injury? Low/Med/High*

Section D – Remedial action to be taken:

Remedial steps that should be taken, in order of priority: 1. 2. 3. 4. 5. 6. 7. 8.
Date by which action should be taken:
Date for reassessment:
Assessor's name: Signature:

Section B – More detailed assessment, where necessary:					
Questions to consider:	If yes, tick appropriate level of risk			Problems occurring from the task (Make rough notes in this column in preparation for the possible remedial action to be taken).	Possible remedial action (Possible changes to be made to system/task, load, workplace/space, environment. Communication that is needed.
	Low	Med	High		
The tasks – do they involve: • holding loads away from trunk? • twisting? • stooping? • reaching upwards? • large vertical movements? • long carrying distances? • strenuous pushing or pulling? • unpredictable movement of loads? • repetitive handling? • insufficient rest or recovery? • a work rate imposed by a process?					
The loads – are they: • heavy? • bulky / unwieldy? • difficult to grasp? • unstable / unpredictable? • intrinsically harmful (e.g. sharp / hot)?					
The working environment – are there: • constraints on posture? • poor floors? • variations in levels? • hot/cold humid conditions? • strong air movements? • poor lighting conditions?					
Individual capability – does the job: • require unusual capability? • hazard those with a health problem? • hazard those who are pregnant? • call for special information / training?					
Other factors: Is movement or posture hindered by clothing or personal protective equipment?	YES / NO				

Back to contents page

Safe Work Practice Sheet General Workshop Safety	Ref: SWPS 025
	Date: Aug 09
	Assessed by: E.Roe

Hazards

Improper storage of items can lead to items falling on staff,
- obstruction of exit routes,
- manual handling injuries,
- fire,
- failure of shelving.
- Operation of diesel or petrol engines in unventilated space may lead to asphyxiation
- Use of cutting equipment without extraction can lead to respiratory problems

Person Exposed to Risk

☐ Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description
General activities in workshop

Controls

- The Workshop is fitted with fire detection and alarm system and emergency lighting which is serviced regularly.
- Exit routes must be kept clear of obstruction at all times.
- Adequate shelving is provided to allow safe storage of equipment.
- Heavier items should be stored on middle shelves with lighter items above shoulder height & floor height.
- Where heavy items are stored the condition of shelving should be checked every 6 months by the Supervisor.
- Diesel and petrol is stored in appropriate marked containers in small quantities (<20 litres).
- Diesel or petrol engines must not be operated indoors unless ventilation is operational.
- Extraction ventilation must be serviced annually.
- Cutting equipment should be used in conjunction with extraction.

Checks & Inspections
Extraction equipment must be serviced annually

Information, Instruction & Training
Staff must be shown the correct use of extraction equipment

Personal protective equipment required (last resort)

Safety boots

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	2	=	Risk Factor	4 Medium Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	2	=	Risk Factor	2

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Use of hand tools	Ref: SWPS 026
	Date: Aug 09
	Assessed by: E.Roe

Hazards

Cuts
Ejection of material
Eye damage
Stab injuries
Head injuries

Person Exposed to Risk

☐ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Using hand tools such as chisels, Stanley knives, hammers, drills etc.

Controls

- Only staff with appropriate training or experience may use hand tools.
- The tools should be checked before use for signs of wear and tear. Damaged items should be taken out of service for repair or replacement.
- No power tools or electrical equipment of greater voltage than 110 volts shall be used in external locations.
- Where power tools have to be used off the main supply the source of supply must be fitted with residual current devices (ELCB) rated at 30 mAmps at 30 msecs.
- All cable connections must be properly made; under no circumstances is insulation tape to be used for any repair or joint in extension.
- Power tools must be maintained in good condition with casing intact and label fitted showing voltage and other information. An annual formal documented inspection should be carried out by a competent person.
- Mains operated equipment must be electrically tested.
- Where there is a risk of particles hitting the eye, eye protection must be worn.
- Ear defenders will not normally be required as the duration of exposure is expected to be low and infrequent.
- Tools should not be left unattended in public areas when going for breaks.
- Staff should not repair tools unless they are trained to do so.
- Only use tools in the manner in which they were designed to be used.
- Return tools to the workshop at the end of each day.

Checks & Inspections

- Check all tools before each use.
- Annual electrical test for mains operated equipment.

Information, Instruction & Training

- Only trained staff may operate equipment. Training may be provided in house by another
- competent member of staff.

Personal protective equipment required (last resort)

Personal protective equipment varies with tool being used. Where there is a risk of flying particles then eye protection should be worn.

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	3	=	Risk Factor	6 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Use of Ladders / Stepladders	Ref: SWPS 007
	Date: 10/05/2011
	Assessed by: P. Killeen Approved by: E. Roe

Hazards

- Physical injury due to fall of persons from ladder
- Objects dropped by ladder / stepladder user

Person Exposed to Risk

✓ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

NOTE:
The use of Ladders / stepladders is restricted to activities where the risk is deemed to be low (that it would be unlikely to cause injury), the work is of short duration (30mins max) or brief periods at a time, and where the risk assessment shows the use of other work equipment (e.g. working platforms) is not justified.

Low Risk is considered when: where the operator can maintain a handhold / grip on stile or handrail whilst placing a box on a shelf and where the user's both feet are fully supported on the same step / rung.

Ladders/ stepladders are not suitable for strenuous or heavy work or where the work involves carrying awkward objects, tools or equipment.

Work Description

The use of Ladders / Stepladders by staff is infrequent. As part of their work technicians on occasions access shelving and storage areas to gain access to materials or parts.

Controls

- Ladder work is restricted to work which can be carried out using one hand only and of short duration.
- The base of the ladder must be on firm and level ground.
- For extension ladders they must be at the correct angle of rest 75 degrees or a base to height ratio of 1:4 (1 out to every 4 units up) and made secured (tying at the top or bottom)
- Stepladders must be fully opened out.
- There must be no sideways loading.
- Maintain 3 points of contact (both feet on the same rung, firm grip on the stile or handrail)
- Over reaching from ladders / stepladders will be avoided.
- Do not work on the top 3 rungs of a ladder, or top 2 steps for stepladders (regardless of length)
- Do not straddle (or sit at the top) of an A frame ladder.

Checks & Inspections

- Ladders will be checked for the correct type of equipment for the job at hand.
- Ladders / Stepladders must be visually inspected before use.
- Inspection of ladders must be recorded on form GA3 for every 7 day of use or used for the first time.

Information, Instruction & Training

- Operatives will be instructed to the safe use of ladders and the hazards which are to be avoided.
- Operatives to follow the controls
- Operatives to report any defects
- A further risk assessment will be necessary where the work activity is deemed to be medium or a high risk.

Personal protective equipment required (last resort)

- PPE may be a requirement dependant on the Risk Assessment

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	2	=	Risk Factor	4

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	2	=	Risk Factor	2

Risk Assessment Review

Risk Assessment will be reviewed periodically

Back to contents page

Safe Work Practice Sheet Use of cutters, scalpel and stanley knives	Ref: SWPS 027
	Date: March 09
	Assessed by: E. Bell

Hazards

- Cuts when taking blades in and out of handle
- Cuts while using equipment
- Cleaning staff receiving cuts if blades disposed of to general waste
- Eye injury if blade breaks while used with force for tasks other than cutting

Person Exposed to Risk

✓ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

A range of cutting equipment is used in some areas by staff and students

Controls

- Where possible retractable blades or safety knives will be used.
- Blades must be disposed of to a designated sharps bin with a closable lid. Blades must never be disposed of to general waste.
- Users should use only sharp blades – blunt blades require more force and their use may result in injury
- Users should cut away from the body keeping the restraining hand well away from the blade.
- Unsheathed blades must never be carried in pockets or bags.
- Unsheathed blades must not be left in drawers or toolboxes.

Checks & Inspections

- Knives cutters used in classroom situations should be visually checked annually and damaged equipment removed from circulation.

Information, Instruction & Training

Students receive specific instruction on safe use of blades

Personal protective equipment required (last resort)

Initial Risk Rating (without any control measures)

Probability : **2** x Severity **3** = Risk Factor **6 High Risk**

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk

Risk Factor = Probability x Severity

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	2-3	=	Risk Factor	2-3 Low Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Appendix III

Specific Safe Work Practice Sheets

Back to contents page

Safe Work Practice Sheet Plumbing Engineering Arc Welding	Ref: SWPS PLU 001
	Date: 18/07/2014
	Revision No. 001
	Assessed by: G. Caffrey Approved By: E. Roe

Hazards

Electricity
Contact with objects that are live with electricity, Incorrectly fitted or damaged electrical cable or plug of welding equipment, wet floors can result in electrocution-death, first, second and or third degree burns.

Manual Handling
Lifting, carrying, pushing and pulling heavy metal loads, welding equipment can result in lower back injury.

Fire
Nylon clothing and other flammable materials may catch fire when in contact with electrical ignition source or sparks and heated materials, resulting in first second and third degree burns.

Slips trips and falls
Poor housekeeping, personal belongings, trailing cables can cause tripping and falls that result in broken limbs and blunt force injuries to the head.

Radiation
Welding generates UV light and infra-red, exposed eyes can result in arc eye and temporary eye discomfort, long term exposure can lead to cataracts. Exposed skin can get burnt and long term exposure can result in skin cancer.

Fumes
Fumes from welding can result in respiratory illness, irritation to the lungs, loss of consciousness and or minor eye irritation.

Hot Surfaces
Metal materials welded together will retain heat and can cause burns to the hands and fingers when handled.

Sharps
Handling pieces of cut metal can result in cuts to the hands and fingers.

Flying material
Chipping slag from metal after welding resulting in flying materials causing permanent loss of sight or temporary eye discomfort.

Person Exposed to Risk

☑ Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Using a power supply to create and arc to weld two metals at one point.

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Use an approved face screen and filter glass. Recommend shade 11 or higher for ARC welding.

- Protect the body by wearing suitable clothing buttoned to the neck and with arms covered.
- Protect the hands by wearing suitable gloves or gauntlets.
- Screen arc welding so that persons who work in the vicinity are protected from “flashes”.
- Avoid exposure of yourself and others to the heat and light of welding arc. N.B. Radiation includes invisible ultra-violet and infrared rays.
- Keep working area tidy and free from flammable material.
- The wearing of loose and nylon clothing is not permitted. Ensure clothing is dry and clean.Ensure suitable fire extinguishing equipment is readily available and maintained in good condition.
- Beware of the danger from hot metal when arc welding. Use heat resistant gloves or tongs when handling hot materials.
- Follow the manual handling guidelines at all times.
- Stand on a dry wooden floor or duckboard and/or wear rubber-soled boots.
- Welding area must be properly ventilated.
- Place material in a safe position where it cannot fall, burn or cause injury.
- Ensure that all leads are laid out in such a manner to prevent trips and falls.
- Never coil a welding cable around any body part.
- Maintain good housekeeping at all times and work area free from clutter and personal belongings.
- Ensure extract system is switched on, place hood directly over material for welding and ensure damper hood is fully open.
- Wear suitable gloves when handling metal sharps. Do not touch live wires or objects that may carry or conduct electricity.
- Ensure that there is adequate earthing.
- Ensure electrical cables and plugs are in good condition and free from damage, do not use if damaged. Competent persons must only carry out electrical repairs.
- Stand on a dry surface and/or wear suitable rubber-soled footwear.
- Switch off the mains-power supply when work is complete.
- Make sure the screen used to protect eyes has the approved “filter glass”. **Recommend shade 11 or higher for ARC welding.**
- Ensure screen is of a size and shape to shield the face, throat, wrist and head
- Outer clothing should be dry, free from oil, grease or flammable substances.
- Protect the forearms from exposure to arc rays, do not roll up sleeves. N.B. cuffs on overalls, turn-ups on trousers, exposed long hair and low cut shoes are likely lodging places for sparks or globules of hot metal and slag.
- Protect the front of the body from throat to knees with suitable leather cape and apron. If only an apron is worn this must provide full protection.
- Wear suitable leather gloves to protect the wrists and hands. Recommend heavy duty leather gauntlets.
- Wear suitable protective footwear.
- Wear safety glasses when chipping weld slag.
- Before operating tools and machinery, read understand and follow the manufacturer’s operating instructions and obey the instructions listed on the machine decals.
- Always make sure machine is fully switched off before walking away.
- Use proper PPE.

If in doubt seek advice from Lecturer or Technician. Normal safety precautions should be adhered to at all times

Checks & Inspections

- Regular maintenance to be carried out according to manufacturers recommendations and records kept by the School
- Ensure all safety notices are readable and displayed in correct locations
- Technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- Only trained staff and students allowed carrying out Welding procedures
- New staff/students will be trained by technician and lecturing staff as required.
- Manual Handling Training
- PPE Training
- Chemical Training
- Welding Rod MSDS

Personal protective equipment required (last resort)

- Safety boots
- Eye protection / Face shield
- Barrier creams/gloves
- Overalls

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Plumbing Engineering Mig and Tig welding	Ref: SWPS PLU 002
	Date: 18/07/2014
	Revision No. 001
	Assessed by: G. Caffrey Approved By: E. Roe

Hazards

Electricity
Contact with objects that are live with electricity, Incorrectly fitted or damaged electrical cable or plug, wet floors can result in electrocution-death, first, second and or third degree burns.

Manual Handling
Lifting, carrying, pushing and pulling heavy metal loads and welding equipment can result in lower back and or musculoskeletal injury.

Fire
Nylon clothing and flammable materials can catch fire when in contact with electrical ignition source, heated metal, sparks and cause first second and or third degree burns to the body.

Slips trips and falls
Poor housekeeping, personal belongings, trailing cables can lead to tripping, slipping and falls that result in broken limbs and blunt force injuries to the head.

Radiation
Welding generates UV light, infra-red, eyes exposed can result in arc eye & temporary discomfort, long term exposure can lead to cataracts. Exposed skin can get burnt and long term exposure can result in skin cancer.

Fumes
Inhalation of welding fumes can result in respiratory illness and lung irritation, loss of consciousness. Irritation to the eyes.

Hot Surfaces
Burns to the hands and fingers when handling metal parts during and after welding.

Sharps
Handling pieces of cut metal can result in cuts to the hands and fingers.

Person Exposed to Risk

☑ Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Carrying out demonstrations and Welding Operations with various Techniques to join two pieces of metal together or fill in holes by heating and melting metal.

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Use an approved face screen and filter glass. Recommend shade **11 for MIG and 9** or **Higher for TIG**.

- Protect the body by wearing suitable clothing buttoned to the neck and with arms covered.
- Protect the hands by wearing suitable gloves or gauntlets.
- Use the screen arc welding cubicle curtain so that persons who work in the vicinity are protected from "flashes".
- Avoid exposure of yourself and others to the heat and light of welding arc. N.B. Radiation includes invisible ultra-violet and infrared rays.
- Keep working area tidy and free from flammable material.
- The wearing of loose and nylon clothing is not permitted. Ensure clothing is dry and clean
- Ensure suitable fire extinguishing equipment is readily available and maintained in good condition.
- Welding area must be properly ventilated.
- Beware of the danger from hot metal when welding. Use heat resistant gloves or tongs when handling hot materials.
- Follow the manual handling training guide lines at all times.
- Stand on dry wooden floor or duck board and/.or wear rubber-soled boots.
- Place material in a safe position where it cannot fall, burn or cause injury.
- Ensure that all leads are laid out in such a manner to prevent trips and falls.
- Never coil a welding cable around any body part.
- Maintain good housekeeping & work area free from clutter and personal belongings at all times.
- Ensure extract system is switched on, place hood directly over material for welding and ensure damper hood is fully open.
- Wear suitable gloves when handling metal sharps.
- Do not touch live wires or objects that may carry or conduct electricity.
- Ensure that there is adequate earthing.
- Ensure electrical cables and plugs are in good working condition & free from damage, do not use if damaged in any way. Competent person/s must carry out electrical repairs.
- Stand on a dry surface and/or wear suitable rubber-soled footwear.
- For TIG: Do not touch the electrode while H.F. set is switched on.
- Switch off the mains-power supply when adjusting / changing electrodes and/or when finishing work.
- Ensure screen is of a size and shape to shield the face, throat, wrist and head.
- Outer clothing should be free from oil, grease or flammable substances.
- Protect the forearms from exposure to arc rays, do not roll up sleeves. N.B. cuffs on overalls, turn-ups on trousers, exposed long hair and low cut shoes are likely lodging places for sparks or globules of hot metal and slag.
- Protect the front of the body from throat to knees with suitable leather cape and apron. If only an apron is worn this must provide full protection.
- Wear suitable leather gloves to protect the wrists & hands. Recommend light leather gauntlets for TIG.
- Wear suitable protective footwear.
- Before operating tools and machinery, read understand and follow the manufacturer's operating instructions and obey the instructions listed on the machine decals.
- Always make sure machine is fully switched off before walking away.
- Filler rods on TIG should be folded at their top end to prevent eye injury, and also to aid identification of hot end so as to prevent burns.
- Use proper PPE.

If in doubt seek advice from Lecturer or Technician. Normal safety precautions should be adhered to at all times.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturers recommendations and records kept by the School

- Ensure all safety notices are readable and displayed in correct locations.
- Technicians to monitor compliance with control measures.
- Lecturers and technicians to monitor the wearing of PPE.

Information, Instruction & Training

- Only trained staff and students are allowed to carry out welding procedures
- New staff/students must be trained by technician and lecturing staff as required.
- Manual handling training
- PPE training
- Chemical training
- Welding Rod MSDS

Personal protective equipment required (last resort)

- Safety boots
- Eye protection / face mask
- Barrier creams/gloves
- Overalls

Initial Risk Rating (without any control measures)

Probability : **3** x Severity **3** = Risk Factor **9 High Risk**

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability : **1** x Severity **3** = Risk Factor **3 Low risk**

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet	Ref: SWPS PLU 003
	Date: 18/07/2014
FMB Phoenix, Manually Operated Band Saw	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Incorrectly wired, damaged machine power cables can result in electrocution-death and or first second and third degree burns.

Manual Handling
Lifting and carrying heavy metal loads for cutting can result in lower back injuries.

Ergonomics
Operating the cutting handle of the machine for long periods of time may result in musculoskeletal injuries.

Noise
Poorly maintained machinery can generate unnecessary noise when cutting various metal materials and cause acute hearing discomfort.

Chemicals
Filling the machine with cutting fluid can result in spilling and splashing and cause minor eye and skin irritation and contaminated clothing.

Slips, trips and falls
Oil on floor can result in slips and cause impact head injuries from falling, minor and major cuts and bruises. Cutting Long pieces of cutting materials, poor housekeeping can cause trips resulting in impact head injuries from falls.

Sharps
Cutting metal materials can generate sharps, removing and replacing the saw blade can cause lacerations to the hands, fingers and other body parts.

Mechanical
Contact with rotating saw blade can result in severing of fingers & hands. Loose clothing, long hair can become entangled with machine causing death.

Flying debris
Cutting of various metals can generate flying materials and cause loss of sight or eye irritation. Unsecured work piece can fly and cause blunt force injuries resulting in concussion and bruising. Damage or poorly fitted saw blade can result in ejected materials causing loss of sight and cuts.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Long and short pieces of square and cylindrical metal tubing and rods of varying diameters are loaded into the machine and cut to a required length using a rotating machine saw.

Controls

- Group gatherings are not permitted with this machine unless under the lecturers supervision.

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Materials must not be stored on top of or beside the machine
- Inspect machine power cables and plug for any defects prior to use.
- Follow manual handling training guidelines at all times, seek assistance where loads are too heavy or awkward to handle.
- Where possible avoid operating the machine cutting handle for long periods at a time, share the cutting work load or tend to other duties for a rest period.
- Ensure the machine is adequately filled with cutting oil and that it is turned on. Ensure to wear gloves and glasses when filling with cutting oil, pour carefully to avoid spilling and splashing.
- Clean all cutting oil up that comes into contact with the floor.
- Remove and replace clothing contaminated with cutting oil.
- Maintain work area free from clutter and personal items.
- Maintain good housekeeping at all times.
- Ensure machine support table is properly secured, level and rollers free rolling.
- Wear gloves when handling cut materials, piping and or replacing removing saw blade.
- Where required hand file or grind any metal burrs & sharps.
- Ensure all machine and blade guards are in place prior to operating the machine. Ensure hand start switch is working properly. Never tamper with machine hand switch & use as intended.
- Stand clear and allow the machine to stop if the blade breaks when running.
- Hands and body parts must remain clear from the cutting blade at all times.
- Loose clothing must not be worn and long hair must be neatly tied back or a cap worn.
- Wear safety glasses at all times when operating the machine.
- Ensure material for cutting is properly clamped and secure.
- Ensure saw blade is correctly tensioned prior to use, replace any damaged blade.
- Switch off the machine when it is no longer required for use.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- Manual handling training
- PPE training
- Chemical training
- MSDS

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots
- Gloves

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet	Ref: SWPS PLU 004
	Date: 18/07/2014
Grit, Belt and Grinder	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Incorrectly wired, damaged grinder power cables can result in electrocution-death and or first second and third degree burns.

Manual Handling
Pushing and dragging the grinder into required work shop can result in lower back injuries.

Hot surfaces
Grinding of various metals can generate heat quickly and cause first or second degree burns to the hands and fingers.

Noise
Grinding of various metal materials generates noise and may cause acute hearing discomfort.

Slips, trips and falls
Grinding metal generates small metal filings and could cause slips and head impact injuries, major and minor cuts and bruising. Poor housekeeping and personal belongings can cause trips resulting in impact head injuries from falls.

Sharps
Grinding metal materials can generate sharps and cause lacerations to the hands, fingers and other body parts.

Mechanical
Contact with rotating sand belt can result in severing of fingers. Loose clothing, long hair can become entangled with sand belt causing serious upper limb injuries. Loss of fingers when turning on the machine due to free hand on sand belt.

Flying debris
Grinding of metals can generate flying metal material and cause loss of sight or eye irritation. Unsecured work piece can fly and cause blunt force injuries resulting in concussion and bruising. Damaged or poorly fitted sand belt can result in ejected materials causing loss of sight and cuts.

Fire
Grinded metal sparks may ignite flammable fuel sources and cause burns to the skin or respiratory illness from inhalation of smoke.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

The machine is used for grinding metal artefacts to a particular size or smooth surface, repairing of cutting tool bits and taking sharp edges off metal materials etc.

Controls

- Group gathering are not permitted with this machine unless under the lecturers supervision.
- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Inspect the machine power cables and plug for any defects prior to use.
- When required seek assistance to manoeuvre machine into the required work shop. Follow manual handling training guidelines at all times. Where possible maintain machine in a fixed designated position
- Maintain good housekeeping and machine work area free from clutter and personal items at all times.
- If required wear heat resistant gloves when grinding down metal materials and maintain clear from rotating grinder.
- When required ensure machine guards are in place prior to operating the machine. Hands and body parts must remain clear from the sanding belt at all times.
- **When switching on or off the machine, the operator's free hand must be by their side and not touching the grinder**.
- Never place hands, fingers, or body parts on or near the rotating sand belt.
- The wearing of nylon clothing is prohibited.
- Wear ear defenders if using the machine for long periods of time.
- Ensure the machine vacuum bag is in place when operating the machine. Sweep any metal filings from the ground when the work is complete.
- Personal belongings and materials must not be stored on top of or beside the machine
- Loose clothing must not be worn and long hair must be neatly tied back or a cap worn.
- Wear safety glasses at all times when operating the machine and handling grinded materials.
- Always use the front rest of the machine when grinding materials.
- Ensure a secure grip of the material object for grinding at all times.
- Ensure sanding belt is correctly tensioned and in good condition before use.
- Ensure the wheels of the machine are correctly aligned.
- Flammable materials must not be stored at or near the machine.
- Switch off the machine when it is no longer required for use and follow the safety procedure for switching on the machine.
- Wash hands when work is complete

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- Manual handling training
- PPE training

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots
- Heat resistant gloves
- Hearing protection

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Mobile Air Compressor	Ref: SWPS PLU 005 Date: 18/07/2014 Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Incorrectly wired, damaged compressor power cables or plug can result in electrocution-death and or first second and third degree burns.

Manual Handling
Pushing, pulling and wheeling the compressor into required work area can result in lower back injuries.

Hot surfaces
Parts of the machine may become heated from compressing air and can cause burns to the hands if in contact with hot surface.

Slips, trips and falls
Poor housekeeping, personal belongings, machine power cable and air lines can cause slips and trips resulting in impact head injuries from falls.

Explosions
Badly maintained or damaged machine can result in flying missiles from explosions and cause loss of sight, puncture wounds to various body parts.

Fire
Flammable fuel sources may ignite when in contact with machine hot parts and cause burns to the skin or respiratory illness from inhalation of smoke.

Whipping air lines
Poorly fitted or damaged airline hoses etc. may result in uncontrolled whipping action that results in loss of sight, and minor bruising.

Falling Machine
Machine falls as a result of damaged wheels and results in crushing of feet.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

The machine is used for pressure testing of class projects.

Controls

- Group gatherings are not permitted with this machine unless under the lecturers supervision.
- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Inspect the machine, power cables and plug for any defects prior to use.
- If required, seek assistance to manoeuvre machine into the required work shop. Follow manual handling training guidelines at all times.
- Ensure wheels on the compressor are in good working order prior to use.
- Do not touch hot parts of the machine during and after use.

- Use the machine handle when transporting the machine to and from storage.
- Maintain machine work area free from clutter and personal items.
- Maintain good housekeeping at all times.
- The wearing of loose or nylon clothing is prohibited.
- Long hair must be neatly tied back or a cap worn.
- Personal belongings and materials must not be stored on top of or beside the machine.
- Ensure cut out switch is good working order.
- Wear safety glasses at all times when operating the machine.
- Flammable materials must not be stored at or near the machine.
- Never drag the machine by the airline hoses.
- Ensure all quall plex and airlines are free from damage or defects and securely fitted prior to use.
- Switch off the machine when it is no longer required for use.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- Manual handling training
- PPE training

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Bench and Pillar Drilling Machines	Ref: SWPS PLU 006 Date: 18/07/2014 Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Incorrectly wired, damaged machine power cables can result in electrocution-death and or first second and third degree burns.

Mechanical
Loose clothing, long hair can result in entanglement with rotating drill causing cuts and bruises to the head and arms. Loose clothing, long hair can become trapped when adjusting cog of machine. Contact with rotating drill piece can result in cuts to the hands and fingers. Entrapment of hand and arm with ascending cutting tool and base table or vice.

Hot surfaces
Drilling metal materials with a cutting tool generates heat and can result minor burns to the hands if in contact with hot surface.

Slips, trips and falls
Poor housekeeping and personal belongings can cause trips resulting in impact head injuries from falls. Trailing power cables can result in tripping and cause impact injuries to the body.

Flying Debris / Objects
Waste drilled pieces of metal, swarf, disintegrated cutting tool can create flying debris and result in loss of sight in both eyes. Unsecured work piece or clamp/vice can result in flying object and cause impact injuries to the head and body parts.

Sharps
Contact with waste swarf and rotating swarf can result in deep lacerations to the hands and fingers. Contact with sharp pieces of drilled material on metal can result in minor cuts to hand and fingers.

Fire
Flammable fuel sources may ignite when in contact with hot metal waste from machining resulting in burns to the skin or respiratory illness from inhalation of smoke.

Ergonomics
Poorly selected working height on machine table can result in lower back, neck and work related upper limb disorder.

Manual Handling
Pushing and pulling metal clamps into required work position, carrying heavy loads for drilling can result in lower back or musculoskeletal injuries.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

The machine is used for cutting holes into metal of varying sizes and shapes.

Controls

- Group gatherings are not permitted with this machine unless under the lecturers supervision.
- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.

- Inspect the machine power cable and plug prior to use. Do not use if damaged in any way.
- All electrical repairs must be carried out be a competent person.
- Loose or nylon clothing must not be worn when operating the machine.
- Long hair must be neatly tied back or a cap worn.
- Hands or arms must never come between a descending drill piece and material for cutting.
- If required, seek assistance to manoeuvre machine into the required work shop. Follow manual handling training guidelines at all times.
- Do not touch hot materials or drill bits with bare hands. Use heat resistant glove if required.
- Maintain machine work area free from clutter and personal items.
- Maintain good housekeeping at all times.
- Personal belongings and materials must not be stored on top of or beside the machine.
- Ensure all machine guards are in place prior to use.
- Safety glasses must be worn at all times when operating the machine.
- Inspect the cutting tool prior to use, do not use if damaged, hand back damaged cutting tool and request a new one from the lecturer / technician.
- Lecturer and technicians are only permitted to carry out repairs on cutting tools.
- Do not touch waste swarf material or rotating swarf with bare hands.
- Do not touch metal sharps after drilling, hand file smooth where possible.
- Use a brush to clean or remove unwanted drilled materials. Never use air.
- Wear safety glasses at all times when operating the machine.
- Flammable materials must not be stored at or near the machine.
- Ensure the machine working table is adjusted to the required working height prior to use.
- Ensure the work price and clamps are secured at all times of use. Use only a wooden or copper mallet to tap down work pieces or clamp handles.
- Exercise caution when adjusting machine height etc. Avoid impacting hand against other machine parts.
- Never leave the machine running unattended.
- Always wait for the machine to come to a complete stop before adjusting or removing drilled material.
- Switch off the machine when it is no longer required for use.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- Manual handling training
- PPE training

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots
- Heat resistant gloves

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Gas Welding	Ref: SWPS PLU 007 Date: 18/07/2014 Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Explosion
Incorrect gas pressure, leaking gas pipe lines etc. can result in an explosion and result in death, major and minor blunt blows to the head and other body parts. Heating metals can result in small metal explosion and cause burns to the skin.

Fumes
Inhalation of smut when igniting acetylene can result in respiratory discomfort and illness. Inhalation of melted metal fume can result in respiratory discomfort and illness.

Hot surfaces
Welding metals pieces together generates heat and can result in first or second degree burns to the hands when touched.

Fire
Fuel sources can ignite quickly when in contact with an ignition source and cause first, second and third degree burns to the body. Loose, nylon clothing and Long hair can catch fire quickly from sparks and result in burns to the head & body parts.

Chemicals
Inhalation of oxygen can result in lung damage and respiratory irritation, Inhalation of acetylene can result in asphyxiation or respiratory irritations. Both gases can cause irritation to the eyes.

Slips, trips and falls
Poor housekeeping, trailing cables, wet floors can generate tripping and slipping that results in falls head impact injuries resulting in concussion and or minor cuts and bruises.

Sharps
Handling cut and welded metal material sharps can result in deep cuts to the hands and fingers.

Ergonomics
Welding pieces of metal that are too high or low on the workbench can result in lower back & musculoskeletal injuries.

Bright Light
Burns to the back of the eyes can occur from looking into gas burning flame and cause eye damage and discomfort.

Manual Handling
Pushing and pulling metals into work position, carrying heavy loads for welding can result in lower back injuries.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Using oxygen and acetylene for welding.

Controls

- Use adjustable height jig for the bench vice when required.
- Wear proper welding visor with approved filter glass.
- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- The wearing of jewellery is not permitted.
- Ensure the gas pressure is set correctly.
- Ensure gases and regulator valves are turned off when no longer required.
- Purge used lines into extract hood.
- Ensure extract fan is switched on when gas welding.
- Ensure damper on the extract hood is fully open. Close damper on hoods not in use.
- Ensure the ignition of the acetylene is conducted directly under the extract hood in use.
- Do not touch hot pieces of metal with bare hands, wear heat resistant gloves or use metal tongs.
- Keep the working area tidy and free from flammable materials and liquids.
- Ensure work clothing is free from grease and chemicals.
- Welding and cutting must be performed in areas free from fire risk.
- Ensure suitable fire extinguishing equipment is readily available and maintained in good condition.
- Loose and nylon clothing is not permitted to be worn.
- Long hair must be neatly tied back or a cap worn.
- Welding area must be properly ventilated.
- Do not place turned on gases at or near the mouth, nose or eyes.
- Maintain good housekeeping & work area free from personal belongings at all times.
- Ensure floors are dry.
- Ensure were possible no trailing gas torch hoses.
- Tidy all gas torch hoses up when no longer required.
- Wear gloves or use tongs when handling metal sharps. Where possible hand file smooth.
- Protect the front of the body with suitable leather cape/apron.
- Wear suitable leather gloves to protect the wrists and hands.
- Wear suitable protective footwear.
- Beware of the danger from hot metal when gas welding and cutting. N.B. cuffs on overalls, turn-ups on trousers, exposed long hair and low cut shoes are likely lodging places for sparks or globules of hot metal and slag.
- Spark lighters are recommended.

Checks & Inspections

- All pipework, fittings & machines checked annually.
- Flashback arrestors are replaced as soon as a replacement is indicated.
- Ventilation system to be checked annually.

Information, Instruction & Training

- Instruction is given on the safe use of the equipment
- Chemical training
- Workshop and laboratory exercises are supervised by college staff
- MSDS
- Manual handling

Personal protective equipment required (last resort)

- Welding Gloves to be worn
- Suitable eye protection must be worn
- Apron/overalls to be worn
- Safety Boots

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 low Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Ridgid, Moble 1224 Threading Machine	Ref: SWPS PLU 008 Date: 18/07/2014 Assessed by: G. Caffrey Approved By: E. Roe

Hazards

Electricity
Incorrectly fitted, damaged machine electrical cable or plugs can result in electrocution, first, second and or third degree burns.

Mechanical
Operators clothing or hair can become entangled with rotating chuck head resulting in asphyxiation, cuts and bruises. Entrapped crushing of fingers with tool head can result in broken bones and minor bruising.

Sharps
Contact with tool head can result in minor cuts to hand and fingers. Contact with sump swarf or rotating swarf can result in lacerations to the hands and fingers.

Manual Handling
Moving the machine into the required position can result in lower back, neck & or musculoskeletal injuries.

Chemicals
Contact with splashing oil can result in minor eye, skin irritation and contaminated clothing. Handling of cut material or cutting tools in contact with cutting oil can result in skin irritation to the hand and fingers.

Slips, trip & falls
Trailing electrical & foot pedal cable, poor housekeeping personal belongings can result in tripping causing falls and head impact injuries, cuts and bruising. Splashing oil can result in slipping and falling causing concussion & broken limbs.

Sharps
Handling rotating swarf, cutting and reaming tool heads and cleaning of sump swarf, can result in lacerations to the hands and fingers.

Flying machine parts and debris
Unsecured chuck head or material for cutting could fly and cause blunt force injuries. Ejected cut material can come into contact with eyes and result in loss of sight.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

The machine is moved to a required location and used to ream, thread and cut metal piping of various sizes.

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Ensure cable and plugs & foot pedal of machine are free from defects prior to use. Do not use if damaged in any way. Competent person/s must only carry out electrical repairs.
- The wearing of loose clothing is not permitted.
- Long hair must be tied back neatly or a cap worn.
- Over reaching across of the machine must be avoided at all times.
- Never touch or adjust a rotating chuck head, always wait for it to come to a complete stop.
- Never rest or place fingers or hands between machine moving parts.
- Always use the handles of reaming, cutting and threading tool when operating the machine.
- Do not touch tool heads with bare hands.
- Do not touch sump swarf with bare hands, use a brush and gloves when cleaning.
- Allow all rotating swarf to fall off into the sump.
- Exercise caution when handling machined metals, when required use a hand file to smoothen off metal sharps.
- Seek assistance if required to move the machine over a long distance, always follow manual handling training guidelines. When manoeuvring the machine use the permanently fitted lever arms. Ensure wheels of the machine are in good working order.
- Wear gloves when handling tools and materials contaminated with cutting oil. Remove and replace clothing if contaminated with cutting oil.
- Wear glasses at all times when operating the machine.
- Pour cutting oil into the sump carefully so as to avoid any splashing. Clean any oil splashes from the ground as soon as possible.
- Avoid running electrical cables and foot start pedal along the work area walk way. Operate the foot start pedal from under the machine.
- Ensure chuck head and metal material for machining is securely tightened.
- Machine must not be left unattended when running, switch off, unplug and tidy away when no longer required.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures.
  Lecturers and technicians to monitor the wearing of PPE.

Information, Instruction & Training

- Instruction is given on the safe use of the equipment.
- Manual handling.
- Chemical training.
- PPE training
- MSDS must be available.

Personal protective equipment required (last resort)

- Gloves to be worn
- Suitable eye protection must be worn
- Safety Boots

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 low Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet FMB Jupiter, Automatic Assist Band Saw	Ref: SWPS PLU 009 Date: 18/07/2014 Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Incorrectly wired, damaged power cables can result in electrocution-death and or first second and third degree burns.

Manual Handling
Lifting and carrying heavy loads for cutting can result in lower back and neck injuries.

Noise
Poorly maintained machinery can generate unnecessary noise when cutting various metal materials and cause acute hearing discomfort.

Chemicals
Filling the machine with cutting fluid can cause spilling and splashing and result in minor eye and skin irritation. Handling of lubricated cut metal or saw blade can result minor skin irritation to the hands and fingers.

Slips, trips and falls
Oil on floor may result in slips and cause impact head injuries from falling, minor and major cuts and bruises. Cutting Long pieces of material, poor housekeeping & incorrect storing of metal can cause trips resulting in impact head injuries from falls. Folded mats on the ground can result in tripping

Sharps
Contact with machine cut metal can contain sharps and cause lacerations to the hands, fingers and other body parts. Contact with saw blade teeth can result in cuts to the hands and fingers.

Mechanical
Contact with rotating saw blade can result in severing of fingers & hands. Loose clothing, long hair can become entangled with machine causing death.

Ejected Material
Cutting more than one cylindrical metal tube/pipe at a time can result in blunt force injuries from unsecure material resulting in concussion and bruising. Damaged or poorly fitted saw blade can result in ejected materials causing loss of sight and cuts.

Hydraulics
Damaged or leaking hydraulic hoses can result in piercing of the skin, loss of sight and minor skin irritation.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Long and short pieces of square and cylindrical metal tubing and rods of varying diameters are loaded into the machine and cut to a required length using a rotating machine saw.

Controls

- Only trained operators (lecturers/ technicians) can operate this machine,
- Students are not permitted to operate the machine.
- Group gatherings are not permitted around the machine.
- Stand back from the machine when cutting programme is selected and running.
- Materials must not be stored on top of or beside the machine.
- Inspect machine power cables and plug for any defects prior to use.
- Ensure emergency stop button is in good working order.
- Follow manual handling training guidelines at all times, seek assistance where loads are too heavy or awkward to handle and lift.
- Ensure the machine is adequately filled with cutting oil and that it is turned on. Wear gloves and glasses when filling with cutting oil, pour carefully, and avoid spilling and splashing.
- Clean all cutting oil up that comes into contact with the floor as soon as possible.
- Collect all metal cut offs in an empty bucket.
- Ensure floor mats are lying flat along the ground.
- Remove and replace clothing contaminated with cutting oil. Wash contaminated skin immediately.
- Wear gloves if handling metals or saw blade in contact with cutting fluid.
- Maintain machine work area free from clutter and personal items. Maintain good housekeeping at all times.
- Metal must be stored on racking.
- Ensure machine rollers are free rolling.
- Where required hand file or grind any metal burrs & sharps.
- Ensure all machine and blade guards are in place prior to operating the machine.
- Stand clear and allow the machine to stop if the blade breaks when running.
- Never touch the rotating saw blade.
- Hands and body parts must remain clear from the rotating saw blade at all times.
- Saw blade must be at a stop when removing cut materials and metal stock
- Loose clothing must not be worn when operating the machine.
- Long hair must be neatly tied back or a cap worn.
- Wear safety glasses at all times when operating the machine.
- Ensure material for cutting is properly clamped and secure.
- Ensure saw blade is correctly tensioned prior to use, replace any damaged saw blades.
- Wear gloves when handling cut materials, piping or removing and replacing saw blade.
- Ensure hydraulic machine hoses are in good working order prior to use, do not use if damaged or leaking. Clean up any leaking hydraulics oil as soon as possible.
- Switch off the machine when it is no longer required for use and tidy up work area.
- Return unused metal stock to storage.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- Machine operation

- Manual handling training
- PPE training
- Chemical training
- MSDS

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots
- Gloves

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Rem Push, Pressure Test Buckets	Ref: SWPS PLU 010 Date: 18/07/2014 Assessed by: G. Caffrey Approved By: E. Roe

Hazards

Mechanical
Crushing of fingers in the lever locking pin of the handle resulting in broken and crushed finger.

Sharps
Handling metal piping for testing can result in lacerations to the hands and fingers.

Manual Handling
Incorrect lifting, carrying of buckets when full can result in lower back or musculoskeletal injury.

Slips, trip & falls
Leaking or over filled water bucket test bucket, damaged pressure hose can cause slipping and result in impact injuries to the head and body. Poor housekeeping, trailing hose cable can cause tripping and result in head impact injuries.

Ejected fluid, debris
Eyes and skin could get sprayed by low pressure ejected water from hose or project piece resulting in temporary minor eye irritation.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

The equipment is used to pressure test students exercises & projects for soundness / leaks.

Controls

- Students are permitted to operate the machine, under correct instruction and the lecturer or technician's supervision.
- Do not place hands or finger in between moving parts of the test equipment.
- Use the test equipment as instructed.
- If required file of all metal sharps from piping.
- Wear gloves if required.
- Follow manual handling training when carrying test equipment to test wet area.
- Carry one test bucket at a time.
- Use carrying handle on the bucket when carrying and ensure handle locking pin is in locked position.
- Ensure pressure hose is placed into empty test bucket when transporting.
- Do not fill buckets prior to carrying to test wet area.
- Inspect bucket and hose for visual damage prior to use.
- Ensure the test bucket is sitting flat and secure on the ground test area.
- Fill buckets with water at the test wet area. Use clean tap water.
- Wear glasses when using test equipment.
- Never pressures test the hose against the skin or body parts.

- Ensure good housekeeping is maintained at all times.
- Return test buckets back to storage when no longer required.

Checks & Inspections

- Lecturers and technicians to monitor compliance with control measures.
- Lecturers and technicians to monitor the wearing of PPE.

Information, Instruction & Training

- Instruction is given on the safe use of the equipment.
- Manual Handling training.
- PPE training.

Personal protective equipment required (last resort)

- Suitable glasses
- Gloves
- Safety Boots

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	2	=	Risk Factor	4 Medium Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	2	=	Risk Factor	2 low Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Ridgid, Manual Hydraulic Pipe Bender	Ref: SWPS PLU 011 Date: 18/07/2014 Assessed by: G. Caffrey Approved By: E. Roe

Hazards

Mechanical
Crushing of fingers and hands in contact with bending frame, hinge, and hydraulic cylinder head.

Falling machine
Incorrectly assembled machine, unleveled ground, damaged machine legs can result in a falling machine and broken lower limb bones, cuts and bruises.

Sharps
Handling sharp metal piping for bending can result in lacerations to the hands and fingers.

Manual Handling
Incorrect lifting, carrying, and dragging of the machine can result in lower back or musculoskeletal injury.

Slips, trip & falls
Poor housekeeping, machine legs, personal belongings can result in tripping & cause fall injuries to the head and hands or arms. Leaking hydraulic fluid can result in slipping and cause impact injuries to the head, arms and body parts.

Chemicals
Contact with leaking hydraulic fluid oil can cause hand and finger skin irritation.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

The equipment is used to bend steel piping at various curved angles.

Controls

- Students are permitted to operate the equipment, under correct instruction and the lecturer or technician's supervision.
- Do not place hand or fingers in between any moving parts of the machine.
- Use the hydraulic arm lever as instructed.
- Ensure the machine is set up on firm level ground and as per manufacturer's guidelines.
- Inspect machine for damaged legs etc. prior to use, do not use if damaged.
- Hand file any pipe metal sharps prior to bending and handling, wear gloves if required.
- Follow manual handling training guidelines when moving and setting up the machine.
- Maintain the work area free from clutter and personal belongings at all times.
- Observe and be aware of the placement of the machine legs prior to and when using the machine.
- Ensure the machine is not leaking hydraulic oil prior to use. Clean up any leaking hydraulic oil from the floor as soon as noticed. Wear gloves to clean leaking oil and dispose of to a bin.
- Tidy the work area when work is complete.

- Safety glasses must be worn at all time when operating the machine.

Checks & Inspections

- Lecturers and technicians to monitor compliance with control measures.
- Lecturers and technicians to monitor the wearing of PPE.

Information, Instruction & Training

- Instruction is given on the safe use of the equipment.
- Machine should be checked as instructed per manufacturer recommendations.
- Manual Handling training.
- PPE training.
- Chemical training

Personal protective equipment required (last resort)

- Suitable glasses
- Gloves
- Safety Boots

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	2	=	Risk Factor	4 Medium Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	2	=	Risk Factor	2 low Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Ridgid, Portable Tristand	Ref: SWPS PLU 012 Date: 18/07/2014 Assessed by: G. Caffrey Approved By: E. Roe

Hazards

Mechanical
Crushing of fingers in chain clamp resulting in broken bones cuts and bruises. Impact injury on hands when tightening vise.

Tipping machine
Incorrectly assembled machine, unleveled ground, damaged machine legs can result in toppling machine and broken lower limb bones, cuts and bruises.

Sharps
Handling sharp metal piping for bending can result in lacerations to the hands and fingers.

Manual Handling
Incorrect lifting, carrying, and dragging of the machine can result in lower back or musculoskeletal injury.

Slips, trip & falls
Poor housekeeping, machine legs, personal belongings can result in tripping & cause fall injuries to the head and hands or arms.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

The equipment is a pipe chain vise that holds metal tubing in place when threading etc.

Controls

- Students are permitted to use the equipment, under correct instruction and the lecturer or technician's supervision.
- Do not place hands or fingers in between chain clamp when tightening.
- Exercise caution when tightening vise, avoid impacting hand on metal parts.
- Ensure the machine is set up on firm level ground and as per manufacturer's guidelines.
- Inspect machine for damaged legs etc. prior to use, do not use if damaged.
- Hand file any pipe metal sharps prior to bending and handling, wear gloves if required.
- Follow manual handling training guidelines when moving and setting up the machine.
- Observe and be aware of the placement of the machine legs prior to and when using the machine.
- Tidy the work area when work is complete.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Safety glasses must be worn at all time when operating the machine.

Checks & Inspections

- Lecturers and technicians to monitor compliance with control measures.
- Lecturers and technicians to monitor the wearing of PPE.

Information, Instruction & Training

- Instruction is given on the safe use of the equipment.
- Machine should be checked as instructed per manufacturer recommendations.
- Manual Handling training.
- PPE training.

Personal protective equipment required (last resort)

- Suitable glasses
- Gloves
- Safety Boots

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	2	=	Risk Factor	4 Medium Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	2	=	Risk Factor	2 low Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Record, Portable Free Standing Bender	Ref: SWPS PLU 013 Date: 18/07/2014 Assessed by: G. Caffrey Approved By: E. Roe

Hazards

Mechanical
Crushing of fingers in clamp resulting in broken bones, cuts and bruises. Impact injury to the head when operating the lever. Entrapment of fingers when operating bending lever.

Tipping or collapsing machine
Incorrectly assembled machine, unleveled ground, damaged machine legs can result in toppling or collapsing machine causing broken lower limb bones, cuts and bruises.

Sharps
Handling metal piping for bending can result in lacerations to the hands and fingers.

Manual Handling
Incorrect lifting, carrying, and dragging of the machine can result in lower back or musculoskeletal injury.

Slips, trip & falls
Poor housekeeping, machine legs, personal belongings can result in tripping & cause fall injuries to the head and hands or arms.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

The equipment is used to bend steel piping to various angles.

Controls

- Students are permitted to operate the equipment, under correct instruction and the lecturer or technician's supervision.
- Avoid impacting head or body parts when operating bending lever.
- Inspect machine for damaged legs etc. prior to use, do not use if damaged.
- Ensure the machine is set up on firm level ground and as per manufacturer's guidelines. Ensure there is adequate working space.
- Ensure chain pin is properly inserted when setting the machine up.
- Do not place fingers in between moving parts of the bender.
- Hand file any pipe metal sharps prior to bending and handling, wear gloves if required.
- Follow manual handling training guidelines when moving and setting up the machine.
- Maintain work area free from clutter and personal belongings at all times.
- Observe and be aware of the placement of the machine legs prior to and when using the machine.
- Tidy the work area when work is complete.
- Safety glasses must be worn at all time when operating the machine.

Checks & Inspections

- Lecturers and technicians to monitor compliance with control measures.
- Lecturers and technicians to monitor the wearing of PPE.

Information, Instruction & Training

- Instruction is given on the safe use of the equipment.
- Machine should be checked as instructed per manufacturer recommendations.
- Manual Handling training.
- PPE training.

Personal protective equipment required (last resort)

- Suitable glasses
- Gloves
- Safety Boots

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	2	=	Risk Factor	4 Medium Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	2	=	Risk Factor	2 low Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Manually Operated Plumbing Hand Tools	Ref: SWPS PLU 014 Date: 18/07/2014 Assessed by: G. Caffrey Approved By: E. Roe

Hazards

Mechanical
Moving parts of hand held tools can result in impact crushing injuries and broken crushed fingers, cuts and bruises.

Failed equipment
Tool handle, head etc. breaks when operating it and results in impact injury to the hands, cuts and bruising

Falling objects
Falling hand tools causing Impact injuries to the legs and feet.

Sharps
Carrying tools to the workbench etc. can result in cuts to the hands and fingers when in contact with cutting heads etc. Contact with sharps on metal piping can result in lacerations to the hand and fingers.

Manual Handling
Incorrect lifting, carrying of hand tools and tool heads can result in lower back injuries and or musculoskeletal injury.

Slips, trip & falls
Poor housekeeping, not storing tools in designated storage area can result in slips & trips causing head impact injuries, cuts and bruises.

Ergonomic
Not carrying the tool by the handles, incorrect use if tool, not trained how to use the equipment, unfavorable working area can result in work related upper limb disorder

Person Exposed to Risk

☑Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Hand held tools are used to bend, thread, ream, file, cut and hammer etc. metal piping.

Controls

- Students are permitted use of the hand held tools, under correct instruction and the lecturer or technician's supervision.
- Inspect tools for defects or damage prior to use, do not use if damaged, damaged tools must handed to the lecturer or technician.
- Trained persons must only carry out tool repairs.
- Never place fingers or hands in between moving tool parts.
- Always use the tool by the handle when operating it.

- Ensure a secure grip of tools at all times when holding.
- Ensure to follow manual handling guideline when using hand held tools.
- Use tool handle to transport, never carry by cutting head.
- Ensure there is adequate working space and height when operating tools.
- Ensure tool handles are clean and dry prior to use.
- Do not touch cutting tool heads with bare hands or fingers.
- Do not touch sharps with bare hands, use gloves when required.
- Do not over load the body when carrying tools to the work bench etc.
- Never swing the tools when transporting.
- Ensure to maintain a clutter free work area at all times.
- Return all tools to storage when no longer required.

Checks & Inspections

- Lecturers and technicians to monitor compliance with control measures.
- Lecturers and technicians to monitor the wearing of PPE.

Information, Instruction & Training

- Instruction is given on the safe use of the equipment.
- Tools should be inspected prior to use
- Manual Handling training.
- PPE training.

Personal protective equipment required (last resort)

- Suitable glasses
- Gloves
- Safety Boots

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	2	=	Risk Factor	4 Medium Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	2	=	Risk Factor	2 low Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Test Heating System	Ref: SWPS PLU 015 Date: 18/07/2014 Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Incorrectly wired, damaged power cables or plugs, water lying on the ground in contact with a live wire can result in electrocution-death and or first second and third degree burns.

Slips Trips and Falls
Poor housekeeping, personal belongings, electrical cables lying on the ground, pipes and tools lying on the ground, water lying on the ground from a leaking system, trailing gas hose line can result in slipping and tripping and cause fall impact head injuries and or broken bones.

Sharps
Handling cut pipes for constructing the heating system can result in minor lacerations to the hands and fingers.

Hot Surfaces
Touching the boiler after applying heat from the hand held burner can result in minor burns to the hands and fingers.

Fire / Explosions
Using hand held burner to apply heat to the burner can result in fire when in contact with fuel sources, leaking gas hose line can catch fire, and result in first, seconds and or third degree burns to the body. Gas cylinder exposed to heat source can cause an explosion resulting in death or permanent loss of sight.

Manual Handling
Lifting, carrying pulling or pushing the gas cylinder to and from the cubicle can result in acute or chronic lower back and or musculoskeletal injuries.

Fumes
The Inhalation of burning butane can result in asphyxiation, leaking butane gas inhaled can result in dizziness and drowsiness.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

The test system is used so that students can construct an operational central heating system.

Controls

- Students are permitted to carry out this task, under the correct instruction and the supervision of the lecturer or technician.
- Inspect the electrical cable and plug prior to using the test equipment.
- Do not use the test equipment if the electrical cable or plug is damaged or defected in any way and remove from use for repair. Report to the lecturer or technician.
- Competent persons must only carry out electrical repairs.
- Maintain good housekeeping and area free from personal belongings at all times.
- Avoid the trailing of power cables at all times. Use the sockets mounted on to the wall in the test cubicle being used.
- Tools, metal pipes and parts must never be left lying on the ground when building the heating system, Always use a work bench to store equipment in use.
- Water lying on the ground in the cubicle must be cleaned up immediately.

- Use the water vacuum hoover if required to clean up water.
- Students must ensure that a leaking system if fixed a soon as possible.
- Inspect the piping for metal sharps prior to handling, hand file any metal sharps smooth.
- Never touch the boiler unit after applying heat to it.
- Students must request the gas torch cylinder and ignition lighter from the lecturer or technician and hand back when no longer required.
- Nylon clothing must not be worn when carrying out this task.
- Fuel sources (paper, wood etc.) must not be stored in, at or near the test cubicles.
- Adequate fire extinguishers must be near to hand when carrying out this test.
- Use the cylinder trolley for transporting the gas cylinder to and from the cubicles.
- Ensure that there is adequate ventilation when carrying out the testing and that the extract system is switched on prior to commencing work.
- Wear safety glasses when carrying out this task.
- Never apply a heat source or naked flame directly on to the gas cylinder.
- Inspect the gas hose line prior to use.
- Do not gas hose line if damaged or leaking gas and remove and replace with a new one.
- Where possible avoid a trailing gas hose line on the ground.
- Turn off the gas cylinder valve when it is no longer required.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- Manual handling training
- PPE training
- Chemical training
- MSDS

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Portable MIG Welder Coogar Gas Cylinder Replacement	Ref: SWPS PLU 016 Date: 18/07/2014 Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Manual Handling
Lifting, dragging, pulling or rolling the empty or full cylinder off or on the welder, pulling or pushing the MIG welder to and from the delivery door of the workshop can result in acute or chronic lower back or musculoskeletal injuries.

Falling Cylinder
Manually moving empty / full cylinder to and from the delivery truck or storage, wheeling the cylinder on the trolley unchained, rolling the empty or full cylinder on or off the welder can result in a falling cylinder causing lower leg and feet crushing injuries.

Slips Trips and Falls
Trailing gas hoses from the welder, poor housekeeping, and personal belongings can result in slipping and tripping causing head and fall impact injuries, cuts and bruises.

Collapsing Welder
Wheels of the welder fail causing the machine to collapse resulting in feet crushing injuries.

Chemicals
Accidental release of COOGAR gas when removing or replacing the regulator and hose on full or empty cylinders can result in dizziness or loss of sight.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Removing and replacing the COOGAR gas cylinder from the portable MIG welder.

Controls

- Students are not permitted to carry out this task.
- Lecturers or technicians are only permitted to carry out gas cylinder replacement.
- Always seek assistance when carrying out this task.
- Follow the manual handling training guide lines at all times when performing this task.
- Use the trolley on wheels to transport the full or empty gas cylinders to & from storage & delivery truck.
- Ensure that the empty or full gas cylinder is securely chained on to the trolley for transporting.
- Ensure empty cylinder is placed standing firmly and flat on the ground when removed from the welder and placed on the trolley for removal ASAP.
- Always use the handle on the MIG Welder when moving to and from storage.
- Move the MIG welder as near to the delivery doors as possible when changing the cylinder.
- Ensure that your feet are positioned clear of the bottom of the cylinder and ramp of the welder when removing and replacing empty or full cylinders.
- Always slowly roll off the empty cylinder from the welder.
- Always slowly roll the full cylinder on to the welder.
- Position the front of the welder against the wall when removing or replacing the cylinder.

- Use a chock bloc for the wheels of the welder when removing and replacing the cylinder.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Ensure that the gas cylinder valve is turned off prior to removing the empty cylinder.
- Remove the gas hoses and regulator on the empty cylinder prior to removing the cylinder from the welder. Place gas hoses and regulator on a work bench nearby.
- Always use the ramp on the welder to remove and replace the empty and full cylinders.
- Always use the chain on the welder to securely hold the cylinder.
- Ensure that the wheels of the welder are in good working order and free from damage or defects prior to use.
- Always ensure that the valve on the empty or full cylinder is closed prior to removing or fitting the regulator and hose. A competent person must always carry out this operation.
- Wear safety glasses when removing and replacing the regulator and hose.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- Manual handling training
- PPE training
- Chemical training
- MSDS

Personal protective equipment required (last resort)

- Safety Boots
- Safety Glasses

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Corded and Cordless Hand Held Drills	Ref: SWPS PLU 017 Date: 19/07/2014 Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Poorly or incorrectly connected, fitted, damaged or defected electrical cables and plugs can result in electrocution-death or first, second and or third degree burns.

Slips Trips and Falls
Poor housekeeping, personal belongings or a trailing electrical cable, hand tools lying on the ground can result in slipping and tripping causing fall impact head and body injuries.

Mechanical
Entanglement of long hair or loose clothing with rotating tool or chuck head can result in minor cuts and bruises. Cuts to hands and fingers when in contact with rotating cutting tools.

Ergonomics
Operating the tool in crunched awkward positions and for extended periods of time can result in acute or chronic lower back and upper body musculoskeletal injuries**.**

Vibration / Torque
Drilling various materials for extended periods of times can result in vibration and cause hand and vibration injuries (white finger). Drilling various materials can result in sprains to the wrist and elbow when the drill comes to a sudden stop.

Flying Debris
Drilling various materials can generate flying swarf and result in loss of sight, drill bits can shatter when in use resulting in loss of sight or minor cuts.

Noise
Drilling various materials can result in the generation of noise and cause temporary hearing discomfort**.**

Sharps
Drill bits can contain sharps resulting in minor lacerations to the hands and fingers when handled.

Falling Machine
Unsecure hold of hand tool when operating it, hand tool placed on the edge of a work bench can result in a falling tool and cause lower leg and feet impact injuries.

Person Exposed to Risk

☑Students ☑ Employees ☐ Public☐ Contractors ☐ Visitors

Work Description

The hand tools are used for drillings holes or screws etc. into various materials.

Controls

- Students are permitted to use the equipment, under the lecturer or technicians supervision.
- Where possible always use a battery operated or 110v drill.
- Where power tools are used off the mains supply the source of supply must be fitted with an RCD (residual current device).
- Inspect the electrical cable, plugs and drill for damage or defects prior to use.
- Do not use if cable or drill is defected or damaged in any way and remove from use for repair by a competent person or safe disposal of.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Avoid the trailing of electrical cables where possible.
- Never leave a hand tool lying on the ground, use a nearby work bench to rest it on.
- Loose clothing must not be worn when operating the machine.
- Long hair must be neatly tied back or a well fitted cap worn.
- Never touch a rotating cutting tool.
- Never assist in stopping or slowing down a rotating tool or chuck head.
- Do not use the hand tool for long periods of time and tend to other duties for periods of rest or split the work load with another work colleague if possible.
- Maintain a firm and secure hold of the hand tool when drilling materials.
- Always place the hand tool in from the edge of a work bench when not in use.
- Wear safety glasses when drilling materials.
- Never touch swarf with bare hands.
- Wear safety hearing protection when required.
- Always use the drill as intended by the manufacturer.
- Never hold or handle a drill bit by its cutting tool head, wear gloves if required.
- Never leave a drill unattended and return to storage when no longer required.
- Always hold the tool with both hands when drilling materials.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturers and technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction & Training

- PPE training.
- Safe use of operating the tool.

Personal protective equipment required (last resort)

- Safety Glasses
- Safety Boots
- Safety Gloves
- Hearing protection

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet	Ref: SWPS PLU 018
	Date: 17/07/2014
Workshop Floor Cleaning	Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Contact with damaged, loose or poorly maintained electrical cables can result in electrocution-death or minor injuries, first, second and or third degree burns.

Manual Handling
Pushing and pulling hoover/buffer, cleaner, moving furniture, machinery etc. can result in acute or chronic lower back and or musculoskeletal injuries.

Chemicals
Applying cleaning chemicals and emptying machinery can result in chemical burns to the eyes, hands, face and other body parts and contamination of clothing. Damage to the lungs by acute wheezing or chronic asthma from the inhalation of fumes.

Slips Trips and Falls
Poor Housekeeping, wet floors, oil and dirt on the floors, trailing cables can cause slips trips and falls resulting in broken limbs, musculoskeletal injuries, broken fingers, cuts and bruises.

Mechanical
Contact with rotating buffer can result in entanglement of long hair, loose clothing causing asphyxiation, cuts and bruises.

Person Exposed to Risk

☑ Students ☑ Employees ☐ Public ☑ Contractors ☑ Visitors

Work Description

Class aid is required to clean the floors of the plumbing work shop by means of electrical hoover, buffer, Taski vacuum liquid sucker and liquid chemicals.

Controls

- Floor Cleaning must be carried out when students, contractors, visitors or other staff are not present.
- Food and drink are not permitted in the work shop/ lab at any time.
- Safety signage must be used when cleaning in progress.
- Inspect the electrical cable and plug of the cleaning equipment for damage or defects prior to use. Do not use if damaged or defected in any way and remove from use for repair or replacement.
- Class Assistant must not carry out repairs on cables, plugs or damaged cleaning equipment.
- All electrical repairs must be carried out by a competent person.
- Never transport cleaning equipment by pulling on the electrical cables.
- Chemicals must be stored (under lock and key controlled by class assistant) away in a designated area.
- Chemicals must remain in original containers with original Identification label

description.

- Ensure that there is adequate ventilation prior to commencing cleaning and turn on the extract system where available.
- Liquid waste (Taski liquid vac hoover, bucket etc.) must be disposed of to external drains.
- Care must be taken when moving or lifting class furniture (seek assistance if required). Follow manual handling training at all time and seek assistance when required.
- Use a pallet truck for moving work benches or other items of furniture and repeat the process when returning to their original position.
- When cleaning machinery is in use, trailing electrical cables must be draped over shoulder of class assistance.
- Remove and replace any clothing contaminated by chemicals.
- When using a mop bucket do not over fill with water.
- When chemicals are required for cleaning ensure to apply them sparingly.
- On completion of cleaning, all cleaning machinery must be returned to storage.
- Observe where cleaning machinery cables are at all times, avoid walking over cables where possible.
- Always use cleaning equipment and chemicals as intended by their manufacturer.
- Never touch the rotating parts of cleaning machinery with any body part.
- Never wear loose clothing when operating cleaning machinery.
- Long hair must be neatly tied back or a well fitted cap worn.

Checks & Inspections

- Cables and Plugs on electrical machines must be checked before use.

Information, Instruction & Training

- Manual handling training.
- Chemical Handling training.
- PPE training.
- MSDS

Personal protective equipment required (last resort)

- Wear safety glasses, boots and gloves when cleaning in operation

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Gas Safety	Ref: SWPS PLU 019 Date: 18/07/2014 Revision. No. 001 Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Chemicals
Working with oxygen and ethylene gases can result in asphyxiation.

Temperature
Quick releasing gas from cylinder can result in frostbite to exposed skin parts.

Explosion
Gas exposed to an ignition source can result in an explosion and or fire and result in death or first second and third degree burns. Cylinders left lying on their side when full or empty can explode and cause death.

Manual Handling
Moving cylinders to and from storage can result in acute or chronic lower back injury.

Escaping Gas
Gas escaping from a cylinder under pressure can result in loss of sight.

Falling Cylinders
Unsecure hold of cylinder when transporting to and from storage, not secure on trolley, cylinder left free standing, can result in a falling cylinder and crush injuries to the lower legs and feet.

Person Exposed to Risk

☑ Students ☑ Employees ☐ Public ☑ Contractors ☐ Visitors

Work Description

Use of oxygen and acetylene for welding.

Controls

- Persons required to connect and disconnect cylinders must have gas safety training.
- Material Safety Data Sheets must be available for any gas in use in the School
- Cylinders must be properly marked so that all users are aware of the contents.
- Always ensure that the regulator in use is suitable for the pressure contained within the cylinder. Check the pressure rating of the regulator and the indicated pressure within the cylinder.
- Ensure that gas tubing is in good condition and is suitable for the gas e.g. never use natural rubber tubing with O_2.
- Never lay cylinders on their side unless they are empty and are being stored prior to removal off site. Never lay acetylene cylinders on their side, even when empty.
- When using flammable gases remove potential sources of ignition from the area wherever possible.
- Cylinders must always be securely fastened. Cylinders must never be left freestanding for any length of time.

- Wear safety gloves, glasses and boots as required.
- The use of PTFE tape to seal joints is prohibited
- The use of oil or greases on cylinder threads is prohibited
- Never attempt to catch a falling cylinder
- The regulator should be closed / turned to zero before opening the cylinder valve at the spindle.
- Repairs to damaged regulators may only be undertaken by a competent service provider.
- Regulators must be serviced on a regular basis, as per the manufacturers instructions. As a general rule an annual inspection with a five year replacement or reconditioning is recommended.
- Regulators must be removed before transporting cylinders, even for short distances
- Correctly sized tools should be used when fitting regulators to ensure no damage to the fittings and a secure fit
- A purpose designed detector fluid should be used to check for leaks around a regulator during initial set up and at regular intervals thereafter
- Naked flames must not be used in areas where flammable gases are stored or used and signage to this effect must be erected close by.
- Areas in which compressed gases are in use must be adequately and continuously ventilated
- When a cylinder is not in use the cylinder valve should be closed
- Cylinders must be handled carefully at all times. All persons handling cylinders must be trained in manual handling techniques.
- Cylinders must be transported using a suitably sized cylinder trolley. Cylinders should be properly secured in the trolley and trolleys should be pushed and not pulled.
- Safety shoes and gloves must be worn when handling large compressed gas cylinders
- Cylinders must not be carried in passenger areas of vehicles. Cylinders should be carried in an open vehicle.
- Cylinders should be stored in well ventilated areas protected from the effects of weather and out of direct sunlight.
- Full cylinders should be stored separately to empty cylinders
- Empty cylinders should be returned to the supplier as soon as possible. Regular supplier delivery and collections should be made to ensure rapid turnover of used stock
- The minimum number of cylinders possible should be kept in storage
- Cylinders must be secured in an upright position

Checks & Inspections

- Piping is checked annually and records maintained by the school.
- Slam shut valves are checked annually and records maintained by the school.
- Lecturers and technicians to monitor the compliance with control measures and the wearing of PPE.

Information, Instruction & Training

- The MSDS for each gas must be available
- Manual Handling Training
- Chemical Handling Training
- PPE Training

Personal protective equipment required (last resort)

- Safety gloves

- Glasses
- Boots

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet Degreasing Bath	Ref: SWPS MOT 049 Date: 19/07/0214 Revision No. 001 Assessed by: G. Caffrey Approved by: E. Roe

Hazards

Electricity
Incorrectly connected, poorly maintained or damaged electrical cable or plugs of the degreasing machine can cause electrocution-death or first second and or third degree burns to the hands and body parts.

Manual Handling
Topping up or emptying the degreaser of detergent requires lifting or carrying, lifting engine or gear parts in and out of the degreasing basin can result in acute or chronic lower back and or musculoskeletal injuries.

Chemical
Immersing parts for degreasing with detergent, removing degreased parts for washing, brush cleaning parts, topping up or emptying the degreaser can result in splashing of detergent causing temporary or permanent loss of sight, burns to the hands and fingers or other body parts by contamination of clothing.

Slips, Trips and Falls
Poor housekeeping, personal belongings, parts for cleaning lying on the ground, trailing power cable, spilled detergent lying on the ground can result in slipping and tripping causing fall impact head injuries and cuts and bruises.

Fumes
Topping up the machine with detergent, removing cleaned parts, brushing parts down with detergent can result in the inhalation of detergent fumes causing acute or chronic respiratory illness.

Fire
Detergent or engine components for degreasing can catch fire when in contact with an ignition source and result in first, second and or third degree burns.

Falling Engine Parts
Lifting or removing engine parts to or from the degreaser can slip and fall causing lower leg and feet crush injuries.

Mechanical
Hands or fingers are inadvertently crushed when closing the lid of the degreaser.

Person Exposed to Risk

☑ Students ☑ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

- The machine is used for degreasing engine and gear box parts of grease, oil, wax, dirt etc.

Controls

- All degreasing operations must be carried out in the degreasing bath in the Motor Shop
- Students are not permitted to carry out this task.

- The Lecturer or technician must only carry out this task.
- Inspect the electrical cable and plug of the degreasing machine prior to use.
- Do not use the test unit if electrical cable or plugs are damaged in any way and remove from use for repair.
- Electrical repairs must be carried out by a competent person.
- Follow the manual handling training guide lines at all times when operating the degreaser.
- Always seek assistance when emptying the degreasing barrel or heavy engine parts.
- Safety glasses must be worn at all stages of the use and maintenance of the degreaser.
- Protective clothing i.e. overalls non-absorbent gloves must be worn (See PPE Required).
- Contaminated clothing must be removed immediately when in contact with degreaser.
- Ensure that the machine is plugged into the socket on the wall at the back of the machine.
- Spilled detergent must be cleaned up immediately.
- Maintain good housekeeping and work area free from personal belongings at all times.
- Parts for cleaning must never be stored on the ground around the machine, use the surrounding work benches.
- Ensure that there is adequate ventilation when operating the degreaser and that the area ventilation system is switched on.
- When possible close the lid of the machine for degreasing or draining parts from detergent.
- Never place hands or fingers between the lid and frame of the degreaser when closing the lid.
- Do not inhale fumes. Wear a mask.
- Do not use in the vicinity of welding operations.
- Do not use in the presence of naked flame or other source of ignition.
- Eating, drinking, smoking & using mobile phones are prohibited from all workshop and laboratory areas.
- Allow parts that are cleaned by detergent to drip dry in the detergent bath before removing.
- Rinse/wash component by immersing, washing or spraying with water.
- Wash both hands thoroughly when finished.
- Adhere to instruction in manufacturers Material Safety Data Sheets.
- All waste solvents must be disposed of according to Material Data Sheets.
- Appropriate fire extinguisher to be close at hand.
- Observe great care when using this process.

Checks & Inspections

- Regular maintenance to be carried out according to manufacturer's recommendations and records kept by the School.
- Lecturer and technicians to monitor compliance with control measures.
- Operator to check extraction is operational before starting process.

Information, Instruction & Training

- .
- MSDS
- Manual Handling training
- PPE Training
- Chemical Handling Training

Personal protective equipment required (last resort)

- Safety glasses
- Industrial safety gloves (Black Gauntlet Gloves CE 0321, extended length 450mm)
- Protective apron/overalls

- Safety shoes/boots
- Safety Mask

Initial Risk Rating (without any control measures)

Probability :	3	x	Severity	3	=	Risk Factor	9 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	3	=	Risk Factor	3 Low Risk

Risk Assessment Review

As and when process changes or yearly

Back to contents page

Safe Work Practice Sheet	Ref: SWPS PLUM 013
	Date 26/01/2011
Noise	Assessed by: Paula Killeen Approved by: E. Roe

Hazard: Noise

Noise exposure can lead to hearing damage or poor concentration which can lead to incidents. Potential hearing damage due to a given sound depends on the sound level and duration of exposure. "Daily noise exposure level" is expressed as Lex 8h(db)(A) (time weighted average). Continuous noise levels can have the same energy content as varying sound levels. Peak sound pressure or instantaneous noise levels reached under the regulations will require particular measures as below

Person Exposed to Risk

✓ Students ✓Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Noise associated with Workshop Machinery

Controls

As a rule of thumb you may be at risk if:

- you have to shout to be clearly heard by someone 1- 2 metres away
- your ears are still ringing after leaving the workplace
- the noise is intrusive – like a vacuum cleaner – for most of the day
- you work in a noisy environment, e.g. workshop, musical events,

When noise exposure exceeds the exposure action value (80 dB(A)), information, training and hearing protection must be provided.

If the upper exposure action value (85 dB(A)) is exceeded,

- establish and implement technical and/ or organizational measures to reduce exposure to noise
- restrict access
- hearing protection
- hearing protection must be worn
- provide hearing checks
- Provide adequate information and training

When using tools such as grinders, air operated pumps etc. Hearing protection must be worn.

Checks & Inspections

- Instructions given when machine is shut down
- Technicians to monitor compliance with control measures
- Lecturers and technicians to monitor the wearing of PPE

Information, Instruction and Training

Supplies of ear defenders or other hearing protection will be made available for any Staff Member where it is not practicable to reduce the noise levels to a safe limit. These where issued must be worn at all times by both Staff and Student when operative is exposed to noise above the Above Upper Action level (85Db) or Exposure Limit(87Db).

Personal protective equipment required (last resort)

hearing protection

Initial Risk Rating (without any control measures)

Probability :	2	x	Severity	3	=	Risk Factor	6 High Risk

KEY		
PROBABILITY	**SEVERITY**	**RISK FACTOR**
Probable 3	Critical 3	1-3 Low Risk
Possible 2	Serious 2	4 Medium Risk
Unlikely 1	Minor 1	6-9 High Risk
Risk Factor = Probability x Severity		

Risk Reduction Rating (after controls introduced)

Probability :	1	x	Severity	2	=	Risk Factor	2 Low Risk

Risk Assessment Review

Noise assessments and Health Surveillance will be part of the safety management programme

Back to contents page

Safe Work Practice Sheet General Health and Welfare Provisions	Ref: SWPS 015 Date: 2/02/2011 Assessed by: P. Killeen Approved by: E. Roe

The workplace regulations (general application) regulations 2007 S.I. No. 299 in particular regulation 18 and 19 gives specific standards to be maintained in the place of work.

These regulations refer to adequate facilities for "taking meals / consumption of food" "cleanliness," also that rest areas are "large enough". These facilities must be kept in a state that is free from accumulations of any dirt, dust etc..

Regulation 18 states:

(f) "the taking of meals by employees is prohibited at any location in the place of work where there is likely to be a risk to safety, health or welfare."

The Plumbing Workshop Store would not be deemed suitable as a place for taking meals (which includes beverages) for a number of reasons including the space limitations, the location of items stored at height, the lack of hygiene facilities and the fact that it is deemed a work area for a member of staff.

Regulation 19 states:

An employer shall ensure that—
"(a) where, because of—
(i) the type of activity carried out, or
(ii) the presence of more than a certain number of employees, and
(iii) the safety, health and welfare of employees so requires,
employees are provided with an easily accessible rest room or appropriate rest area,"

providing relaxation during breaks,
(b) rest rooms are large enough and equipped with tables with easily cleaned surfaces and seats with backs, adequate for the number of employees,

The Plumbing Workshop and store would not meet the criteria set out in section 19 above, because of the work activity carried out (where there is a presence of dirt and dust) and (it is deemed a work area) and (Insufficient space). Therefore under both sections of the Safety, Health and Welfare at Work (general application) regulations 2007 DkIT would be breaching the requirements.

Washing, food preparation and eating areas are made available at various locations: Starbucks, The Main Canteen, The Well, The Coffee Dock, The Staff Room.

Information, Instruction

To meet the requirements of Health and Safety Legislation and to ensure that good hygiene practices are employed at all times, it is prohibited to consume or bring into laboratories or workshops any drinks or beverages.

Signed: _____

Head of School of Engineering

Back to contents page

EMERGENCY RESPONSE	Ref: SWPS 016
	Date: 26/01/2011
	Assessed by: P. Killeen Approved by: E. Roe

Person Exposed to Risk

✓ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Emergency protocol for everyday working environment.

Emergency Contacts

- Dial 9 for an outside line, then 999 or 112 and you will be connected directly to the emergency services.
- Be prepared to give the following information:
- Information on the condition of the victim, if there is a casualty.
- Details of any hazards, i.e. fire/chemical/gas/structural collapse.
- Exact location of the accident (room number and building).
- Call the Estates Office (2671/2670) and give the above details.
- If deemed necessary, contact the Nurse (2777) and trained Department first aiders.
- Call Reception (500), ask them to alert the caretaker on duty and give them the above details.
- Report to the Head of Department, Head of School, and your Supervisor (where relevant).
- As soon as practically possible, report the accident on an accident/incident report form and submit to the Head of Department/ Head of School of Engineering

- Emergency contact numbers are strategically located throughout the School of Engineering

Fire Fighting Equipment

The majority of fire-fighting equipment points are located in workshops, laboratories and on each floor in the School of Engineering building. There are a number of trained fire wardens in the School. Fire warden courses are run on a regular basis and are available through the Estates Office. The School abides by the Institute Policy and Procedures on fire safety.

Information, Instruction & Training

All training in First Aid, Emergency Response, and Fire Safety/Wardens is available through consultation with your Head of Dept and HR Office. The School abides by the Institute Policy on first aid safety.

Back to contents page

EMERGENCY CONTACT NUMBERS	Ref: SWPS 017 Date: 26/01/2011 Assessed by: P. Killeen Approved by: Eugene Roe

Person Exposed to Risk

✓ Students ✓ Employees ☐ Public ☐ Contractors ☐ Visitors

Work Description

Important contact details which are available throughout all Departments in case of emergency

General

- Ambulance/Fire Brigade: 112 or 999
- Health Centre/Campus Nurse: 2777
- Doctor: Dr. Shane Gleeson: 2702/ 042 9320038
- Hospital: Louth Hospital: (042) 933 4701

A List of First Aiders is prominently displayed in all workshops and Lab Locations

Back to contents page

Appendix IV

Accident / Incident, Near Miss and Dangerous Occurrence Reporting Procedures

ACCIDENT, INCIDENT, NEAR MISS AND DANGEROUS OCCURRENCE REPORTING PROCEDURES

Dundalk Institute of Technology is committed to reducing accidents and ill-health to staff and students of the Institute. Procedures are in place in the Institute to ensure that all Accidents, Near Misses and Dangerous Occurrences are recorded. These procedures not only ensure compliance with the law, but are also used as a basis for analysing trends throughout the Institute, in an effort to reduce accidents and ill-health to staff and students. All reports are reviewed at each meeting of the Institute Safety Monitoring Committee.

The purpose of an investigation is to establish all the facts relating to the incident, to draw conclusions from the facts and to make recommendations to prevent reoccurrence. Each incident will be looked at from the point of view of place, plant, procedures and people, to see where the safety system has failed and to tighten controls. It is important to note the definitions of all incidents (Accidents, Near Misses & Dangerous Occurrences) in order to take the correct action.

DEFINITIONS

An **Accident** is defined as an unplanned event resulting in personal injury or property damage. This could include, but is not limited to:

- Sprain
- Laceration
- Broken bone
- Concussion
- Unconsciousness
- Ill-health
- Sickness due to exposure to a dangerous substance, fumes or gases, fire or explosion
- Sickness due to a chemical spill or environmental pollution
- Damage to building
- Damage to property

A **Near Miss** is defined as an incident in which there was no injury or property damage but where the potential for serious consequences existed.

A **Dangerous Occurrence** is one of a number of specific, reportable adverse events, which are defined within the Twelfth Schedule of the General Application Regulations 2007. Dangerous Occurrences are reportable to the Health & Safety Authority (HSA) using Form lR3 or via the HSA online notification process. Any Dangerous Occurrences which are notifiable to the HSA will be forwarded by the Health & Safety Co-ordinator.

These are incidents with a high potential to cause death or serious injury, but which happen relatively infrequently. Dangerous occurrences usually include incidents involving:

- Lifting equipment
- Pressure systems
- Overhead electric lines
- Electrical incidents causing explosion or fire
- Explosions, biological agents
- Radiation generators and radiography
- Breathing apparatus
- Diving operations
- Collapse of scaffolding
- Train collisions
- Wells
- Pipelines or pipeline works

All Accidents are 'Incidents'. However, the definition of an Incident is wider in that it includes Dangerous Occurrences and Near Misses.

REPORTING PROCEDURES

All incidents must be reported immediately using the DkIT relevant incident report forms. These are located in the Parent Safety Statement and also on the DkIT website at https://www.dkit.ie/safety/incidents-accidents-reporting-procedures. All sections of the form must be completed with as much accurate information as possible.

The immediate supervisor must investigate the cause of the incident, and complete the Institute Accident/Incident Report Form or Near Miss Form. A copy of this form must then be made available to the Head of Department/School/Function for review and final sign off. Copies of the completed form should be forwarded to the Health & Safety Co-ordinator, Secretary/Financial Controller and the Estate's Office. Copies of these forms are contained within this document.

Accidents involving visitors and contractors must be investigated by the staff member to whom the injury was reported, in conjunction with the staff member they are visiting or working with.

Accidents, which involve serious or fatal injuries to an employee, student or any third party must be notified to the Health and Safety Co-ordinator and the HSA without delay.

Any accidents at work that involve an employee being unable to carry out his/her duties for three or more consecutive days, or that involve a third party being injured and requiring treatment from a medical practitioner, are reportable to the HSA and must be notified using Form lR1 or via the HSA online process, as soon as practicable. Dangerous Occurrences are reportable to the HSA using Form lR3 or via the HSA online notification process. Any incidents, which are notifiable to the HSA, will be forwarded to the HSA by the Health & Safety Co-ordinator.

Internal Reporting Procedure

It is the responsibility of each Head of Department/School/Function to ensure that the appropriate investigation procedures take place in the event of an Accident, Near Miss or Dangerous occurrence arising in their area. Heads of Department/School/Function must also ensure that the appropriate forms are completed and forwarded to **each** of the relevant parties (i.e. Estates Office, Secretary/Financial Controller, Health & Safety Co-ordinator).

It is the responsibility of the Health & Safety Co-ordinator to ensure that all reported incidents are tabled and discussed at each ISMC meeting.

External Reporting Procedure

Arising from the internal reporting procedure, any incidents, which are notifiable to the HSA, will be forwarded to that body by the Health & Safety Co-ordinator.

ACCIDENT / INCIDENT REPORT FORM

Note:
This form should be completed whenever an accident or incident occurs which results in injury or damage to personnel or property.
If personnel or property WERE NOT injured or damaged during the Accident/ Incident, do not use this form. Use the NEAR MISS REPORT FORM.

Accident / Incident Report Form			
i	**Name of person involved in Accident/Incident:**		
ii	**Address:**		
	Phone:		
iii	**Who was involved in the Accident/Incident:** ☐ **Student** ☐ **Employee** ☐ **Public** ☐ **Contractor** ☐**Visitor**		
iv	**Occupation:**		
v	**If an employee of the Institute please state Department:**		
vi	**If no, please elaborate:**		
vii	**Particulars of Accident/Incident & circumstances under which the Accident/Incident occurred:** *Use additional pages and/or photos if necessary.*		
viii	**Place:**		
ix	**Time:**	**Date:**	
x	**Witness Phone No & Address:**		
	Witness Phone No & Address:		
xi	**When and to whom was the Accident/Incident initially reported?**		

xii	**Details of injury/damage:** Indicate type of injury (put an 'x' in one box only) ☐ Bruising, contusion ☐ Concussion ☐ Internal injuries ☐ Open wound ☐ Abrasion, graze ☐ Amputation ☐ Open fracture (i.e. bone exposed) ☐ Closed fracture ☐ Dislocation ☐ Sprain, torn ligaments ☐ Suffocation, asphyxiation ☐ Gassing ☐ Drowning ☐ Poisoning ☐ Infection ☐ Burns, scalds and frostbite ☐ Effects of radiation ☐ Electrical injury ☐ Property damage, Specify_____ ☐ Other, Specify_____
xiii	**Indicate part of body most seriously injured (put an 'x' in one box only):** ☐ Head, except eyes ☐ Eyes ☐ Neck ☐ Back, spine ☐ Chest ☐ Abdomen ☐ Shoulder, upper arm, elbow ☐ Lower arm, wrist, hand ☐ Fingers, one or more ☐ Hip joint, thigh, knee cap ☐ Knee joint, lower leg, ankle ☐ Foot ☐ Toes, one or more ☐ Extensive parts of the body ☐ Multiple injuries ☐ Other, Specify_____
xiv	**Consequences of the Accident/Incident:** Fatal ☐ Non Fatal ☐ Date of resumption of work if back Year ____ Month _____ Day ___ Anticipated absence if not back 4-7 days ☐ 8-14 days ☐ More than 14 days ☐
xv	**Treatment:**
xvi	**Doctor's report and recommendation:**
xvii	**Steps taken to prevent reoccurrence of this type of Accident/Incident:**
	Signature of person completing report: / **Date:**
	Print Name & Job Title:
	Signature of Head of Department/School/Function: / **Date:**
	Print name:

(Copies of the completed Institute Accident Report are to be sent <u>separately</u> to the Institute Health & Safety Co-ordinator, the Secretary/Financial Controller and the Estates Office)

NEAR MISS REPORT FORM

Note:
This form should be completed whenever a Near Miss occurs - that is an incident WITHOUT injury to person or damage to property.
If personnel or property were injured or damaged during the incident, do no use this form. Use the 'ACCIDENT / INCIDENT REPORT FORM'.

NEAR MISS REPORT FORM			
i	**Date of Near Miss:**	**Time of Near Miss:**	
ii	**Location of Near Miss:**		
iii	**Who was involved in the Near Miss:** ☐ **Student** ☐ **Employee** ☐ **Public** ☐ **Contractor** ☐**Visitors**		
iv	**Name of person(s) involved in Near Miss:**		
v	**Name, Address & Contact details of any witnesses to Near Miss:**		
vi	**Description of Near Miss:**		
vii	**Steps taken to prevent a reoccurrence of this type of Near Miss incident:**		
	Signature of person completing report:		**Date:**
	Print Name & Job Title:		
	Signature of Head of Department/School/Function:		**Date:**
	Print name:		

(Copies of the completed Near Miss Report Form are to be sent to the Health & Safety Co-ordinator, the Secretary/Financial Controller and the Estates Office)

First Aid and Emergency Contacts

	Location	
Jim Connolly	Mechanical Engineering Workshop	Ext 2966
Phil Dillon	Engineering Administration	Ext 2754
Simon O' Neill	Plumbing Workshop	Ext. 2847
Larry Quigley	Plumbing Workshop	Ext. 2594
Nick O'Rourke	Plumbing Workshop	Ext. 2593
Alan Gorham 9396510	Plumbing Workshop	042

- Ambulance/Fire Brigade: 112 or 999
- Health Centre/Campus Nurse: 2777
- Doctor: Dr. Shane Gleeson: 2702/ 042 9320038
- Hospital: Louth Hospital: (042) 933 4701

Back to contents page