FSTE Bendigo Risk Assessment Procedure

Step 1 Use the **Examples of hazards** in the table below as a guide to define all hazards identified within the scope of the project/activity under consideration. Hazards may be identified at a variety of levels, for example, in the work environment itself, in the use of specific equipment, practices or chemicals etc.
Step 2 Calculate a **Risk Score** for each hazard. Use this score to prioritise actions to reduce as far as practicable the risk involved in the activity.
Step 3 Using the 'hierarchy of risk control' table below as a guide; choose and document strategies to reduce the risk associated with each hazard
Step 4 Reassess the risk score for each hazard in view of the control measures proposed. Repeat steps 3 and 4 until Risk Score is acceptably low.

Examples of Hazards		Risk Assessment Table (used to calculate Risk Score for each hazard)					
Environmental Hazards Heat/cold exposure, poor lighting, excessive vibration, working in remote location		**Exposure**		**Probability**		**Consequence**	
Situational hazards eg proximity of electrical equipment to water supply, working after hours		Continuous (several times per day)	**10**	Most likely	**1**	Catastrophic (numerous fatalities/ irrecoverable damage	**20**
Use of Dangerous Goods/ Hazardous substances (specify which and how goods are used) eg use of dichromate to clean glassware		Frequent (eg daily)	**6**	Possible (Has a good chance of occurring/ not unusual)	**0.6**	Fatal (expected death of one person or major property damage)	**10**
Equipment hazards eg hotplates, lasers, pressure vessels, centrifuges, sharp instruments, untested electrical, lasers, distillation apparatus		Occasional (once a week or month)	**3**	Conceivable (Can be envisaged but unlikely)	**0.3**	Serious (permanent injury, permanent disability)	**5**
Hazardous procedures Long distance driving, Working with biohazards and radiation hazards		Infrequent (annually)	**2**	Remote (Not impossible. Has not been known to occur)	**0.1**	Serious non permanent (eg serious cuts, sprains, burns)	**2**
Ergonomic Hazards eg Lifting/Carrying weights, long periods at keyboard		Rare (every 2 years or more)	**1**	Inconceivable (Practically impossible)	**0.05**	Minor (Minor cut/ bruising/ No medical attention required)	**1**

Risk Score Calculation = E X P X C As a guide a risk score >10 is regarded as **HIGH**, 3-10 = **MEDIUM**, 0-3= **LOW**

Hierarchy of risk control measures (for risk reduction). Consider elimination of the hazard first, if not possible consider substitution and so on

1	Elimination of the risk ie a permanent solution. Eg replace the use of a hazardous substance used to clean glassware with a non hazardous one.
2	Substitution involves replacing the hazardous aspect with one of a lower risk factor. Eg use a radioactive label with a short half life and reduced energy of emission
3	Engineering controls involve physical barriers or structural changes to the process.
4	Administration controls alter procedures and provide instructions eg
5	Personal Protective Equipment eg protective gloves, safety glasses, respirators - a last resort , or temporary control.

FSTE Bendigo Risk Assessment

Activity description,_____

Person/s Assessing Risks_____Date_____Reviewed _____

Hazard number and Description (consider transport, storage, handling, special procedures, routes of exposure of chemicals etc)		**Initial RA Score**	**Control measures to be implemented**	**New RA Score**	**Control adopted Y/N ?**
1					
2					
3					
4					
5					
8					

FSTE Bendigo Risk Assessment

Activity description,_____

Person/s Assessing Risks_____Date_____Reviewed _____

Hazard number and Description **(consider transport, storage, handling, special procedures, routes of exposure of chemicals, personnel involved etc)**		**Initial RA Score**	**Possible Control measures**	**New RA Score**	**Control adopted Y/N ?**
1	Use of hotplates- Risk of electrical shorting if power cable contacts hot surface and burns through insulating cover. Equipment frequently used by research staff and students NB (potential for electrocution if unit is incorrectly earthed) Risk of burns from hotplate.	3 X .6 X 10 =18 3 X 0.6 X 1 = 1.8	Ensure all units are electrically tested annually (reduce consequences from potentially fatal to minor) Label equipment with advice (on power lead) not to connect to power point above the surface of the hot plate or in other situations where the cord could possibly contact the hot surface. Alert all users to potential risks (reading this risk assessment) Consider replacement of standard electrical cord with heat resistant for student use and areas where other risk controls are not sufficient. Instruct user not to leave hotplate unattended while in use. Sign "Danger Hot surface" should be kept with each unit and displayed when unit is in use or while cooling down. (reduce probability that burns will occur)	3 X .3 X 0.1= 0.09 3 X .1 X 10 = 3 3 X 0.1 X 1 =0.03	
2	Use of compressed gasses Risk of cylinder being knocked over, damaging regulator. Sudden rapid release of compressed gas can cause the cylinder to act like a burst balloon. Risk of compressed gases creating asphyxiant toxic or explosive atmospheres.	2 X .3 X 10 = 6	Ensure all cylinders are secured (chained) at all times in use and transport to prevent the possibility of accidental damage to regulator (reduce likelihood) Reduce use of bottles gases as far as possible replace with in line systems. Ensure all users are familiar with the potential risks of compressed gases in laboratories and are trained in emergency procedures. Be familiar with specific recommendations in MSDS. Situation specific risk assessment may be required. Never keep compressed gases in small unventilated spaces (including vehicles) where accidental release of gas could create explosive, toxic or asphyxiant atmosphere	2 X 0.1 X 10 = 2 .	
3	Use of Dangerous Goods and hazardous substances Risk of accidental exposure.	6X .6 X 7.5= 27	Read and follow instructions in individual risk assessment for each substance (in lab folder)	6 X 0.3 X 1 = 1.8	Y

Hazard number and Description (consider transport, storage, handling, special procedures, routes of exposure of chemicals, personnel involved etc)		Initial RA Score	Possible Control measures	New RA Score	Control adopted Y/N ?
4	Storage of flammable liquids in laboratory Risk of creating inflammable atmosphere and subsequent ignition causing fire or explosion.	6 X .3 X 20 = 36	All Laboratories where flammable liquids are stored will display page 19 from AS/NZ 2243:10 2004 which details the quantities of flammable goods considered safe to store outside of an approved flammable liquid cabinet. Where quantities exceed these limits, and cannot be reduced by relocation to the main flammable liquid storage areas, a cabinet meeting Australian standards will be provided. Storage and use of flammables will be in accordance with the relevant MSDS and LA TROBE UNIVERSITY GUIDELINES FOR THE LOCATION OF FLAMMABLE LIQUIDS CABINETS And GUIDELINES FOR THE STORAGE OF CHEMICALS Available at http://www.latrobe.edu.au/ohs/	1 X .1 X 20 = 2	Y Y/N not all areas fully compliant yet
5	Storage of corrosive substances in laboratory Risk of accidental spillage resulting in chemical burns to persons or property Reaction with other chemicals	6 X .3 X 5 = 9	All Laboratories where corrosives are stored will display page 19 from AS/NZ 2243:10 2004 which details the quantities considered safe to store outside of an approved cabinet. Where quantities exceed these limits, and cannot be reduced by relocation to the main storage areas, a cabinet meeting Australian standards will be provided. Storage and use of corrosives will be in accordance with the relevant MSDS and LA TROBE UNIVERSITY GUIDELINES FOR THE LOCATION OF FLAMMABLE LIQUIDS CABINETS And GUIDELINES FOR THE STORAGE OF CHEMICALS Available at http://www.latrobe.edu.au/ohs/	1 X .1 X 2 = .2	Y Y/N not all areas fully compliant yet