## Laboratory Personnel Onboarding Information Sheet

This resource has been compiled to facilitate laboratory personnel's understanding of resources and processes relating to the safe operation of laboratories at the University of Newcastle.

Prior to entry into any restricted laboratory space, new staff and students must be provided with a site-specific induction by a suitably experienced and authorised member of the laboratory staff.

## Discover Training

In addition to the compulsory University Health \& Safety induction and the Emergency Procedures Training located on the organisation's DISCOVER training system, as a new member of the university laboratory community you will be expected to complete the Introduction to Laboratory Safety training suite. This suite of training materials is also available in DISCOVER and covers the hazards and risks of laboratory-based activities at the University including:

- Introduction
- Risk Management
- General Laboratory Safety
- General Chemical Safety
- General Nanomaterial Safety
- General Gas Safety
- General Cryogenic Safety
- General Biological Safety
- Working Safely with Animals
- General Radiation Safety
- General Laser Safety
- Common Laboratory Equipment and
- Laboratory Waste Management.

All modules which relate to the type of work to be conducted in your laboratory must be completed. Consultation with the laboratory manager will determine the minimum units that must be completed by laboratory staff (includes all academic and professional staff) prior to laboratory access being granted. A certificate is available when the course is considered complete (i.e. all units and quizzes completed).

DISCOVER offers additional training material for laboratory staff including:
Introduction to GHS (Revision 7) - covering the Globally Harmonized System (GHS), a global method of classifying chemicals, preparing labels and safety data sheets (SDS). After completing the module and the competency exam, a Certificate of Training is available.
Induction to work in the Electron Microscope and X-ray (EMX) Unit - This induction to access the EMX must be completed before any work can begin in the Unit.

DISCOVER provides the opportunity for specialist training courses from external providers. These courses are available each year (dates available in DISCOVER). Examples of the kinds of training include:

Cryogenic and Gas Safety Training - Delivered face-to-face for staff, honours and postgraduate students who will be working with compressed gases and/or cryogenic materials.

Gas Handling Safety Training - Delivered face-to-face for staff, honours and postgraduate students who will be working with compressed gases.

IA19 Use portable x-ray fluorescence (XRF) radiation apparatus for analysis - This certified training course is a requirement for anyone who plans to operate a handheld XRF device and covers the associated safety and compliance requirements for handheld XRF equipment.

Laser Safety Training - Delivered face-to-face for staff, honours and postgraduate students who wish to operate higher risk Class 3 or 4 laser equipment including microscopes, mass spectrometer, particle sizer/counters etc.

Liquid Nitrogen Safety Training - Delivered face-to-face for staff, honours and postgraduate students to develop the skills to handle, transport and store liquid nitrogen safety.

Radiation Safety for Sealed and Unsealed Sources - An update on current legislated requirements for working with radiation sources focusing on safety

Radiation Safety for Unlicenced Users of X-ray Equipment - Delivered face-to-face for those staff who are operating X-Ray equipment under supervision, including XRD.
Respirator Fit Testing - Delivered face-to-face for research students and staff, the training covers the correct way to wear different types of respiratory masks.

Respirator Training - Delivered face-to-face for research students and staff, the training covers the many types of respiratory PPE from dust masks to full face respirators (when they should be worn, how they should be worn and general maintenance requirements).

## Information Available on the University Website

## Waste Management

Separation of waste into different waste streams for disposal is the responsibility of all members of the laboratory. Information about waste management is provided in both the Lab Safety Manual Template and the Workshop Safety Manual Template (links below in Additional Webpage Resources section).

The University of Newcastle ensures that chemical waste remains separate from other waste by contracting the services of a specialist disposal company. The waste collection can be booked by completing Chemical Waste Form and emailing it to wastecollection@newcastle.edu.au. The collections are generally available once per month and the dates of these collections can be found on the University webpage, but you must notify the university at least two weeks prior to the pickup date and someone must be available on the day of collection. The waste must be stored in the appropriate packaging, be clearly and correctly labelled.

Laboratory waste can be disposed of through the Contaminated Waste process, local bins (those inside the laboratory) can be used if they contain the yellow contaminated waste bin liners. These are available through the laboratory, while the larger Wheelie Bin size Contaminated Waste bins are available through your School office and they will have a schedule of when these are collected.

Clean Cardboard box waste can be left with other non-contaminated waste for collection but must be marked as clean cardboard waste (this is especially critical if it has come from a PC2 laboratory). Contaminated cardboard box waste must be treated as any other contaminated waste as per the laboratory waste management procedure.

## Chemical Storage

The University of Newcastle uses ChemWatch to identify the maximum quantities of chemicals stored on sites. The database provides a vast repository of SDS, labelling and storage information for laboratory chemicals.

Access to include or update your laboratory's manifest in ChemWatch can be arranged via an email to the ChemWatch Administrator.

All chemicals within the laboratory should have an SDS contained within ChemWatch. If the SDS from the applicable provider is not already available in ChemWatch, you will need to follow the process is to upload the applicable SDS. In ChemWatch the custom SDS can be entered through the side toolbar request button.

The ChemWatch manifest stores the list of laboratory chemicals in a virtual environment to allow the user to simply check what maximum volumes of each chemical should be in each location within the laboratory. If the maximum volumes were to change (either up or down), this should be reflected in ChemWatch Manifest.

## Additional Webpage Resources

The University of Newcastle maintains the following webpages to help keep researchers informed:

1. In the event of an unintentional release of a GMO, the Genetically Modified Organisms Reporting Procedures shows who needs to be contacted.
2. For information on Biological Safety, Chemicals and Hazardous Materials, Genetically Modified Organisms, Hazardous Substances, Laboratory Animal Allergy (LAA), Laboratory Signage and Radiation Safety, Laboratory Safety page.
3. Each laboratory and workshop must have an applicable Safety Manual which is used to ensure any new user is familiar with the specific hazards and risks of the area. To aid the development of such a document a Workshop Safety Manual template and a Laboratory Safety Manual template have been developed.
4. Risk Assessments are a part of every laboratory and performing them is part of your safety review process. The Risk Assessments for Teaching and Research page on the University website provides information on how to complete a risk assessment as well as useful links to templates and other resources.
5. The development of SOPs is required for all tasks with identified risks or hazards. Templates for SOPs are available for staff to use as a basis.
6. From time to time the University may issue a Safety Alert as a reminder or as advised by relevant authorities. These are available for specifically identified hazards. The latest alerts can be found on the Health, Safety and Wellbeing webpage.
7. As part of the Health and Safety Management Framework (HSMF) the University has established a number of guidelines that exist to help staff developing safety documentation. These provide easy to follow information to help the staff member meet the requirements of the HSMF Element.

## Specialist Technical Committees

The university operates specialist committees that focus on select technical activities, these include: The Chemical and Radiation Technical Committee (CRTC) which provides the University with a forum for the consultation of health and safety matters involving hazardous materials (other than biological) that may impact on the operations of the University and its community.

The Institutional Biosafety Committee (IBC) which assists the University of Newcastle to meet the legislative requirements of the Gene Technology Act 2000, and National Health Security Act 2007, as well as monitoring microbiological practice against Australian Standards (AS/NZS 2243 series) and other aspects of biosafety related to research and teaching.

## Safety Review Process

All new research grants and any laboratory activity that has an identified hazard will require the lodging of a Safety Review Application (if you have difficulties loading the form, please contact Health and Safety at healthandsafety@newcastle.edu.au or 40339999 (extension 39999) - select option number 5). The details identified on your Safety Review Application form are used to determine whether the safety review remains local or is escalated to a safety committee for review. If it is escalated, then the information within the form will enable the Health and Safety staff to ensure it is reviewed by the correct committee to ensure sufficient feedback is provided to the researcher. The form will be assessed by either the IBC or CRTC, with no work to commence prior to the review being completed. Research grant funds will not be released until approval of the safety review has been completed.

## Additional Resources

The University's Health and Safety Management System Framework outlines how the University approaches work health and safety. You should become familiar with the overarching frameworks and the Key Health and Safety Management system elements, guidelines and key risk areas (KRAs).

The university uses a system of Key Risk Areas (KRAs) to identify risks and potential controls within specialist areas. The Health and Safety Management System has a substantial number of KRAs it uses to help its staff develop SOPs. Below are some that are of relevance to laboratory staff:

- KRA 1.1 Hazardous Substances \& Dangerous goods (under review) - Refer to the Chemical Management Procedure.
- KRA 1.4: Plant and Equipment - outlines how the University meets its obligation to ensure the health and safety of people, through the processes of selection, use, maintenance and disposal of plant and equipment.
- KRA 1.5 Personal Protective Equipment (PPE) - outlines the requirements and practices for the management of personal protective equipment (PPE) to assist with correct selection, supply, use, replacement, maintenance, training and storage.
- KRA 1.6: Noise Management - Guidelines for reducing as far as practicable, the risk to hearing due to exposure from noise and/or ototoxic substances in the workplace and ensure compliance with the NSW Code of Practice: Managing noise and preventing hearing loss at work.
- KRA 1.7 Laboratory Safety - provides a guideline for the management of safety and associated compliance obligations within Laboratories and similar specialised facilities where higher level hazards may be encountered.
- KRA 1.9 - Radiation Management - Refer to the Radiation Safety Manual, Radiation Safety Tab
- KRA 2.1: Manual Handling and Ergonomics - prevent musculoskeletal conditions and injuries associated with manual handling and ergonomic hazards.
- KRA2.4 Working alone or in isolated environments - ensure that all members of the University of Newcastle (UON) community are aware of safe work practices when working alone or in isolated situations.


## Emergency Contacts

| Contact Name | Contact Number |
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| Security | $\times 158888$ |
| Health, Safety and Wellbeing Team | 40339999 (x39 999) option 5 |
| WHS Business Partners: |  |
| Neill Bourne (CESE, Resources Division and NIER) |  |
| Jodie Higginson (CHSF, Academic Division, GEP |  |
| Division, VC Division and Newcastle Precinct) |  |
| Melissa Musicka (CHMW R\&I Division and HMRI) | 49217330 |
| IFS | 49553229 |
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