

# ACNS Risk Assessments

Risk assessments are a powerful tool to ensure safe work. They are used to identify and raise awareness of hazards and to determine practical and effective controls.

Risk assessments must be carried out on all processes, experiments or preparations and should be documented. At ANSTO risk assessments are often referred to as SWMES (Safe Work Method and Environmental Statement). The safety review is conducted on your experiment proposal. If a documented risk assessment is required the User Office or the ACNS Laboratory Manager will be in contact to request this. If you make changes to your experiment or the samples you are bringing, please contact the Laboratory Manager as soon as possible, to ensure the requirement for further risk assessment can be determined.

This page describes a simple versatile format that may be used. Assistance is available from your Local Contact or the Lab Manager.

## Information to collect before you start

- Safety Data Sheets (SDSs) - SDSs for numerous laboratory chemicals are available via the ACNS Customer Portal (under Chemical Database).
- Details of the work and any applicable reference material.
- Previous risk assessments (from previous experiments, or work in your home institution).

## Basic Risk Assessment Format

- Name of person/s preparing the risk assessment
- Brief description of activity
- Person/s conducting work
- Chemicals to be used
- Equipment to be used

Then a table or list of:

- The individual steps involved in the work
- The hazard that could be present when performing each of those steps
- The controls for each hazard
- And the person/s responsible for implementing each control

The risk assessment must be prepared by the people who will be conducting the work. It must be read and signed by the people who will be following it.

For all work in the ACNS laboratories, a risk assessment covering all activities must be submitted to the Lab Manager four (4) weeks in advance for approval.

## Types of controls

Any controls used should follow the hierarchy of controls. It is always preferable to select controls from as high up this list as possible.

1. Elimination - remove the hazard (for example: remove sources of ignition when handling a flammable gas)
2. Substitution/modification - substitute with a lesser hazard (for example: less hazardous chemical)
3. Isolation - separate the hazard from people and the environment (for example: fume cupboards, shielding)
4. Engineering - devices or systems that protect against the hazard (for example: automatic shut off functions)
5. Administrative - provide appropriate training, procedures for work, signage, and limit exposure times.
6. Personal Protective Equipment (PPE) - provide adequate PPE (for example: as directed by SDS or identified by risk assessment). This control should only be used in conjunction with other controls.

## User Instructions

For commonly used equipment, a user instruction is available. This document briefly outlines the usage of the instrument/equipment and any safety precautions that are required.

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