

# MAJOR HAZARDS

## WHAT IS A MAJOR HAZARD?

Major hazards are those that could result in serious injury or fatality, major equipment or environmental damage or major production losses for the organisation.

## WHAT ARE THE MAJOR HAZARDS AT OTML?

33 major hazard groups have been identified at OTML. The following 8 topics are the most common major hazards:

1. Work at Height
2. Vehicle Interaction
3. Malaria
4. Confined Space
5. Suspended Loads and Dropped Objects
6. Health for Life
7. Unplanned Movement of Equipment
8. Rotating Equipment.

During National Mine Safety Week we will be looking at how to control these major hazards.

## HOW DO WE IDENTIFY MAJOR HAZARDS?

The Health and Safety team maintains a register of Major Hazard Scenarios. The register is reviewed each year and is updated whenever a new major hazard scenario is identified or conditions change in relation to a currently identified major hazard scenario.

A copy of the register is available to everyone on the OTML Intranet.

Each OTML Site and Business Function is required to undertake a hazard identification process, using the Major Hazard Scenario register, to identify the major hazard scenarios relevant to their activities.

## KEY CONTROLS

Each major hazard scenario is recorded in a bowtie diagram that shows:

- The threats that can lead to the event
- The potential outcome if the event happens, and
- The controls that can either stop the event from happening or minimise the consequence if it does happen.

It is called a bowtie, because of the shape formed by the threats or causes on the left, the potential event in the middle and the controls on the right.

Key Controls are identified through this process.

Key Controls are the actions, processes, physical items and behaviours that are the most likely to prevent a serious injury or fatality, large scale equipment or environmental damage and / or major loss to the organisation.

## KEY CONTROL DATA SHEETS

Key Control Data Sheets (KCDS) have been developed in consultation with operating sites and subject matter experts for each identified major hazard.

The KCDS has 3 sections:

**Operational Requirements:** This section clearly defines what is required from the control for it to be effective and allows you to quickly check if a control is correctly implemented.

**Task Requirements:** This section sets out the requirements that supervisors and operators must follow to effectively implement the control. These requirements must be recorded in all JSAs relating to the task.

**Design Requirements:** This section identifies key requirements and applicable standards, rules and references that should be considered when making modifications or changes to equipment, procedures, processes and systems.

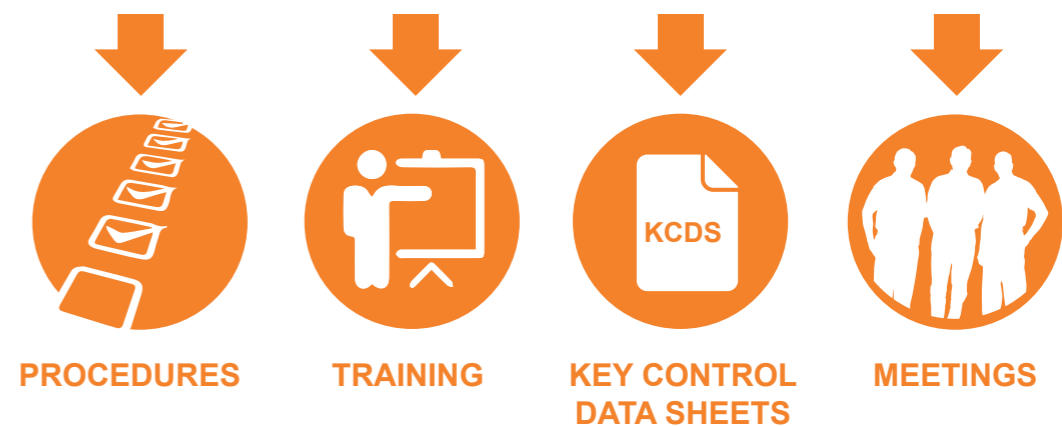
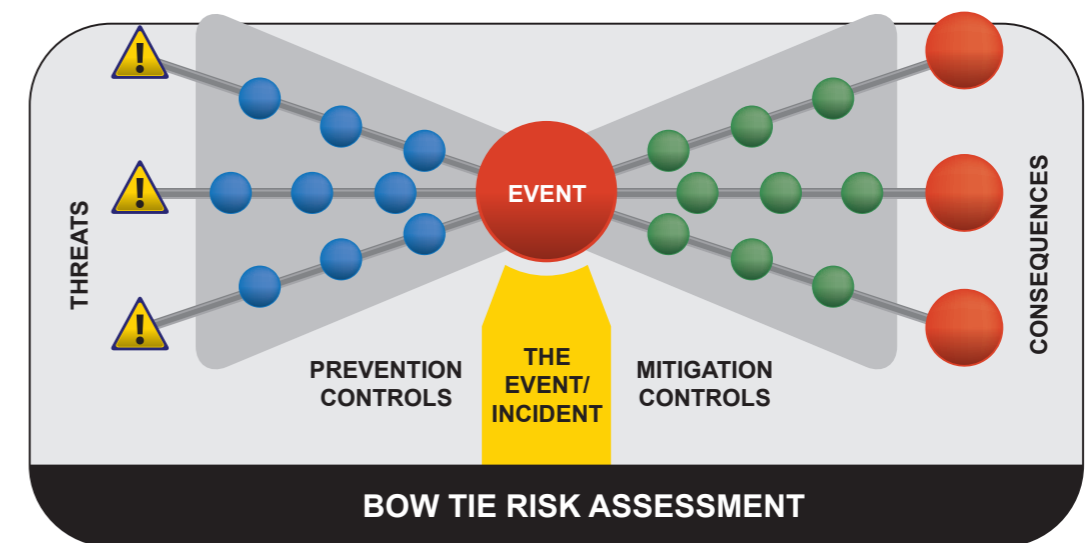
## WHAT DOES THIS MEAN FOR ME?

All of this may sound complicated, but the hard work has already been done.

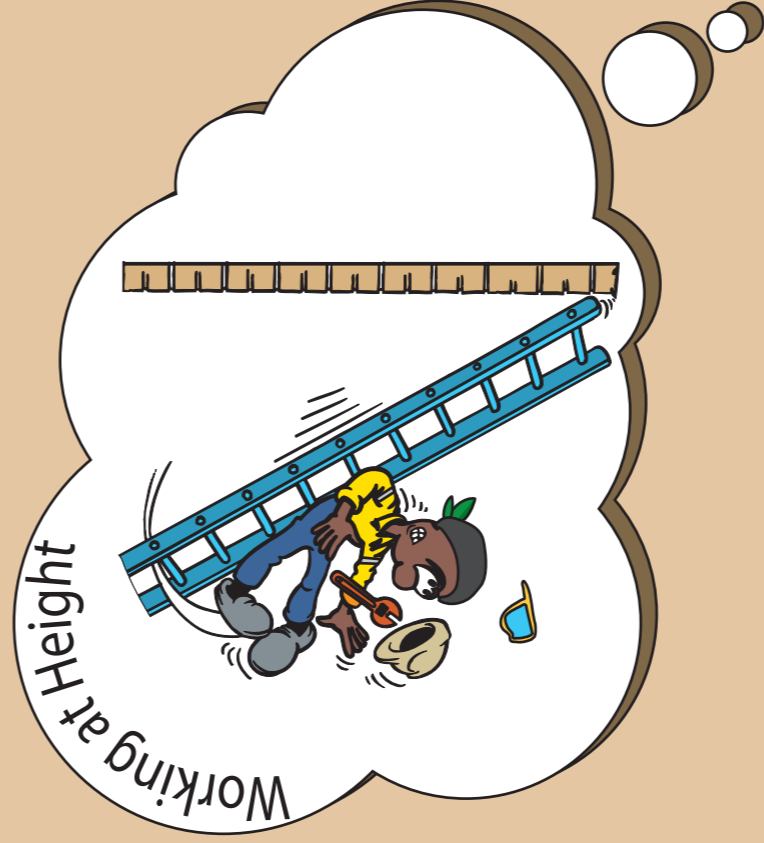
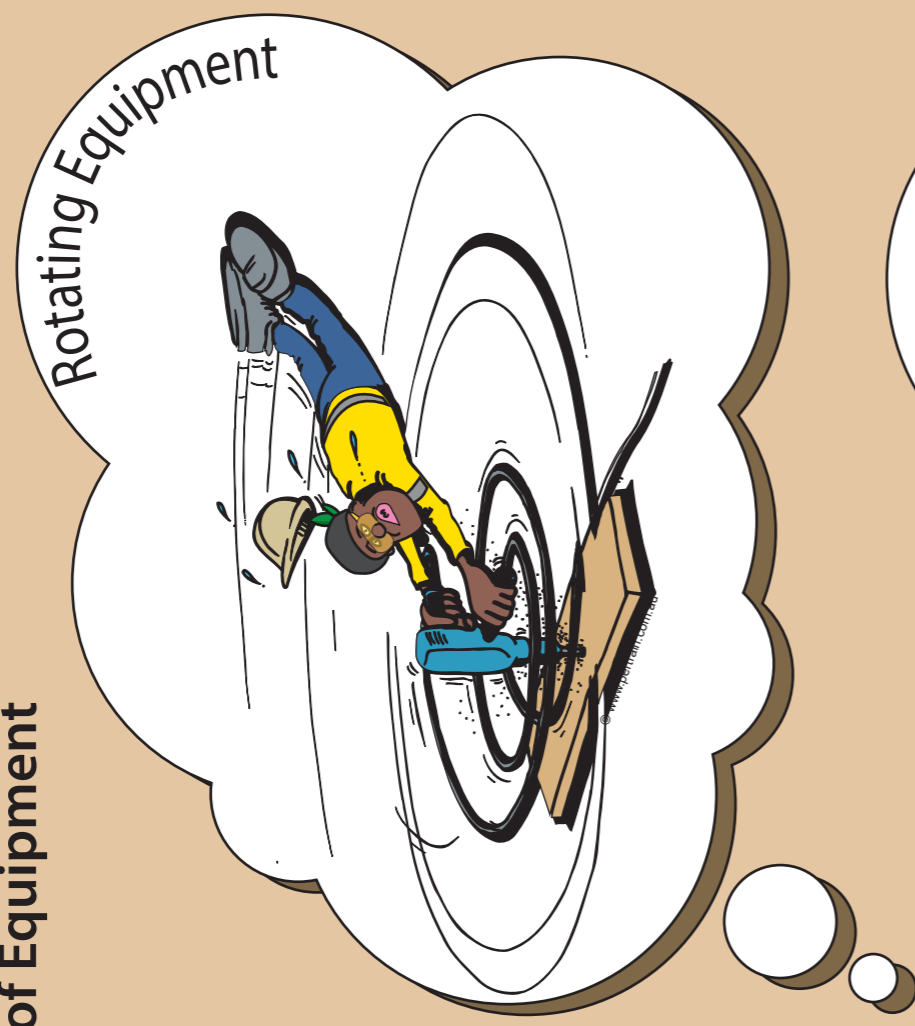
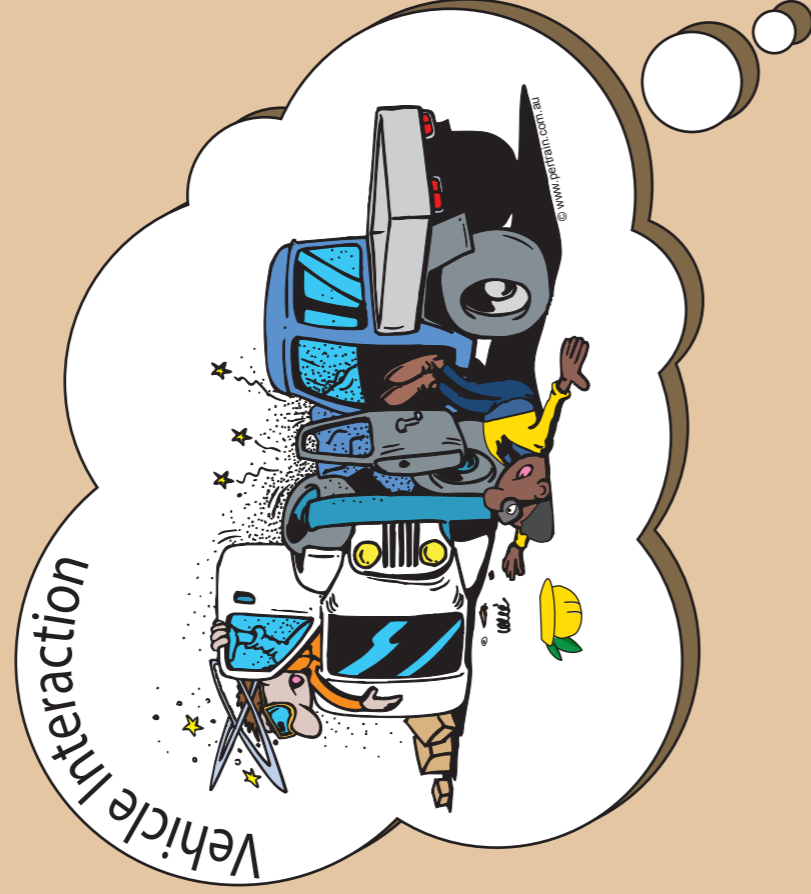
- ✓ Major hazard scenarios identified
- ✓ Bowties developed
- ✓ Key controls identified and included in:
  - Procedures and Work Instructions
  - Training
  - Checklists, including JSA
  - Authority to Work (ATW) and Clearance Certificates
  - Shift Briefings and Toolbox Talks.

So all you have to do is:

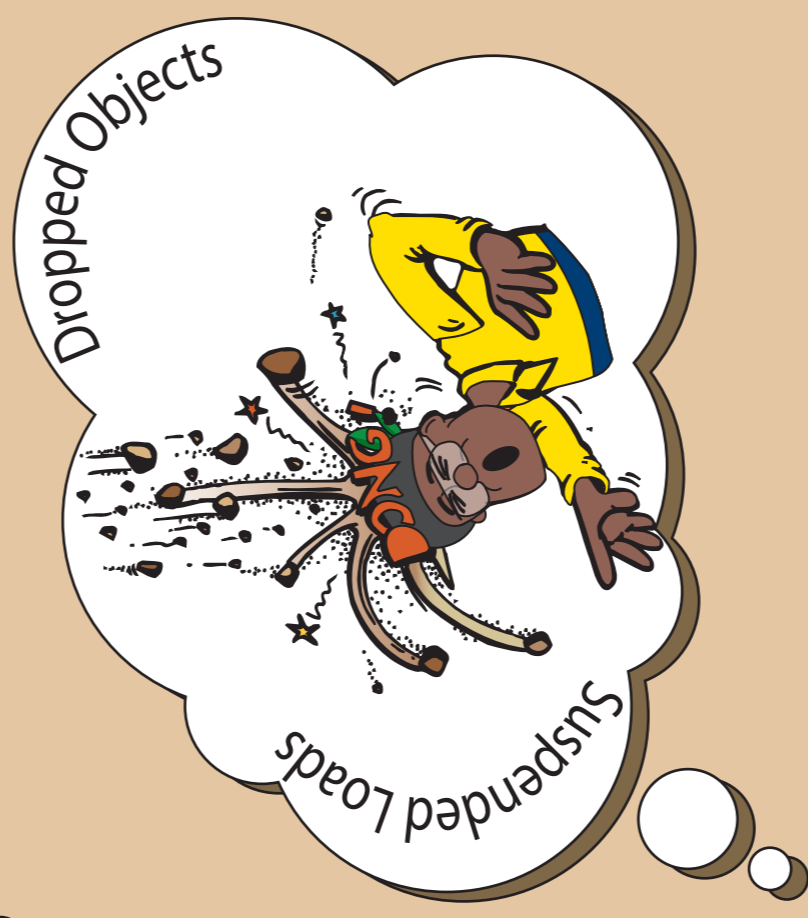
- Attend shift briefings and toolbox talks
- Read and follow OTML procedures
- Only do tasks that you have been trained and authorised to do
- Do a Take 5 and pre-start inspection of equipment before each task
- Take part in JSAs
- Read, understand and comply with all requirements of any ATW and Clearance Certificate you are working under
- Ask your supervisor if you are unsure about anything.



Unplanned Movement of Equipment



Confined Space



Health for Life

