

Lessons learned from one of New Zealand's most challenging civil engineering projects: rebuilding the earthquake damaged pipes, roads, bridges and retaining walls in the city of Christchurch 2011 - 2016.

Critical Risk 7 Health and Safety Toolbox – powered plant and tools

Story: Health and Safety

Theme: Programme Management

A document which outlines how to work safely with powered plant and tools, created to discuss with site staff at on-site “toolbox talks”.

This document has been provided as an example of a tool that might be useful for other organisations undertaking complex disaster recovery or infrastructure rebuild programmes.

For more information about this document, visit www.scirtlearninglegacy.org.nz



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Health and Safety Toolbox 7

Critical risk– Powered Plant and Tools

Powered Plant and Tools are our **number 7 critical risk** because of the potential consequences from misuse

Personnel Injury Including:

- ⇒ Burns, Cuts/lacerations and eye injury from moving parts and fragmentation
- ⇒ Hearing damage from excessive noise
- ⇒ Respiratory problems from excessive dust
- ⇒ OOS (Occupational Overuse Syndrome) from vibration
- ⇒ Strains from incorrect use



Additional hazards include:

- ⇒ Electric shock, electrocution and burns due to faulty equipment
- ⇒ Electrocution and burns from coming into contact with electrical services
- ⇒ Fire from sparks and over heating
- ⇒ Injury from stored energy (hydraulic and pneumatic) devices

Also consider:

- ⇒ Working around flammable liquids and gases (toxicity/explosions)
- ⇒ Working in confined spaces/heights/Uneven ground



How can I prevent this?

Before you start ask yourself

- ⇒ Do you understand the task?
- ⇒ Am I competent to use the tool?
- ⇒ Do I have the correct tool for the job? Does it require a permit to use?
- ⇒ What other permits are required for the task? (confined space, Hot Work, heights etc.)
- ⇒ Do I have correct PPE?
- ⇒ Have all risks been identified for the task and assessed?
- ⇒ Am I aware of my surroundings and will it effect others? (noise, dust, flyig debris)
- ⇒ Do I have all emergency response equipment available? (First Aid Kit, First Aider, Fire Extinguisher, Spill Kit)



During the task

- ⇒ Be in a comfortable position to complete the task and have regular breaks
- ⇒ Keeping moving parts directed away from the body and have controls in place– dust suppression, coolant, screens, exclusion zone etc.
- ⇒ Regularly check tools for any adjustment to guards, blades, leads, hoses, connections etc.
- ⇒ Keep area well ventilated and communicate with others in the area (task changes, assistance required etc.)

