



Te Kaunihera-ā-Rohe o Ngāmotu

New Plymouth District Council

Hot Work Procedure

Document #: HSP-0755-001

Version 1.0

Location of Controlled Copies:	ECM 8518265
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REVISIONS

Rev	Date	Pages	Description	By
a	March 2021	All	draft	Fleur Robertson
1.0	September	All	Issued	Fleur Robertson

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1.0 Introduction

To alert personnel to the hazards which can exist when Hot Work is undertaken, and the controls required to prevent injury to persons or damage to assets.

2.0 Scope

The Hot work procedure applies to all Council Workers (Employees, Contractors and Contractors Sub-contractors) and any other persons performing work on any NPDC owned or operated facilities.

The Permit to work, Hot Work procedure is NOT intended for designated maintenance workshop activities where a welding bay is set up.

Hot work includes but is not limited to welding, brazing, cutting, grinding or other flame or heat operating equipment that produces a source of ignition. It is also applicable in any work area where a flammable atmosphere exists.

This procedure must be read in conjunction with the [NPDC Permit to Work Procedure and the NPDC confined space entry procedure.](#)

3.0 References

- [Health and Safety at Work Act 2015](#)
- [Health and Safety at Work \(General Risk and Workplace Management\) Regulations 2016](#)
- [Worksafe notification of particularly hazardous work](#)
- [Worksafe Guide to confined spaces: planning entry and working safely in a confined space.](#)
- AS2865-2009 Safe Working in a Confined Space AS/NZS 2865:2001
- NZS4781:1973 COP for Safety in Welding and Cutting (Standard for protecting people and property from the hazards that can arise from hot work activities).

4.0 Definitions

Attachment certificate	Specific form used for the management of high risk work. Each attachment certificate has its own corresponding procedure and forms as part of the PTWS.
Confined space entry	An enclosed or partially enclosed space, as defined in AS/NZS2865-2009, that is not intended or designed primarily for human occupancy, within which there is a risk of one or more of the following: a) An oxygen concentration outside the safe oxygen range b) A concentration of airborne contaminant that may cause impairment, loss of consciousness or asphyxiation c) A concentration of flammable airborne contaminant that may cause injury from fire or explosion d) Engulfment in a stored free flowing solid or a rising level of liquid that may cause suffocation or drowning. Notwithstanding this definition, the PI may, at their discretion, classify any area as a confined space.
Gas testing	Gas testing is conducted to detect combustible, flammable and toxic gases and oxygen depletion.



Hot Work	Any work which involves a source or potential source of ignition or which may be capable of igniting flammable vapours or any combustible material.
LEL	Lower Explosive Limit The concentration of a flammable contaminant in air below which the propagation of a flame does not occur on contact with an ignition source, i.e. too lean to burn.
Safety watch	Maintains surveillance of areas where hot work – welding or cutting with torches is occurring.

5.0 Responsibilities

In addition to the responsibilities listed in the NPDC Permit to Work Procedure, the specific responsibilities in relation to Hot Work are:

Safety watch

- Ensure Safety watch understands the nature of the job
- Ensure Safety watch is aware of areas where there may potentially be combustible atmospheres/materials
- Safety watch must be competent in the use of fire extinguishers and it is on hand ready for use
- Constant monitoring of hot work activity to ensure sparks are contained
- Extinguish small fires
- Notify others of a fire
- Call for help if required – use of two way radio or other communication
- Competent in the use of gas detection equipment (where determined by the risk assessment)

Contractors are responsible for their personnel and their sub-contractors personnel, as well as compliance with this procedure/standard.

Workers have a duty of care, to their work team and others in relation to the application and maintenance of this standard, for the work they, their team or others undertake.

6.0 Training & Competency

Specialised training and competencies are required before an individual is to perform hot work.

These and other training requirements can be found on the [NPDC Training Matrix](#).

PTW Role	Training	Description
Safety watch	NZQA 3271 & 4647	Fire extinguisher training
	NZQA 17596	Safety observer
	NZQA US23229	Gas testing



7.0 Requirements for Hot Work.

Hot work outside of the designated workshop shall be managed under the [NPDC PTW System](#).

A Hot Work certificate must be used in conjunction with the permit to provide a high level of detail on the controls to be put in place to manage the activity.

In some situations fire & gas detection systems, e.g. heat/smoke/gas detectors may need to be disabled. Where that is required, this needs to be documented on the permit and associated lock out/isolations attachment certificate completed under section 4, Isolation of Safety/Emergency Systems.

Hazards to consider are:

- Fumes
- Compressed gases
- Hazardous substances
- Toxic gases
- Radiation
- Dust
- Noise and vibration

Potential control measures are:

- Identification of combustible materials.
- Gas testing to prove that combustible gases/vapours are not present and the atmosphere for O₂ and LEL is safe
- Gas detection is used to indicate whether conditions are safe for:
 - Entry to an enclosed area or vessel
 - Working in an atmosphere where the oxygen level may not support life without wearing self-contained breathing apparatus
 - Working in an area without Self-Contained Breathing Apparatus where dangerous toxic gas or vapours may be present.
- Appointment of a Safety Watch
- Fire precautions, equipment and extinguishers suitable to the material
- Means of catching sparks to control safely
- Post hot work inspections and checks
- Means for two way radio communication

Hot work in a Confined Space

Second tier approval needs to be sought from the Site Manager/Lead, if hot work is going to be conducted in a confined space, additional control measures may include but are not limited to:

- Removal of combustible materials/vapours
- Continuous monitoring of the atmospheric conditions
- Force ventilation to improve extraction
- Respiratory protection from contaminants

An emergency response plan must be established and communicated to all persons involved in the hot work activity before work can proceed.



8.0 Attachments

[Excavation Certificate](#)

[Job safety and environmental analysis](#)

[Isolations attachment certificate](#)