WEED REMOVAL

GAS DIVISION

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Contents

1. PURPOSE

The purpose of this work instruction is to provide ATCO GAS Australia (ATCO) workers with practical advice that will allow them to undertake weed eradication without posing a risk to their health and safety or causing a detrimental effect to the environment.

2. SCOPE

This process applies to all ATCO workers when undertaking any weed control programs on any ATCO site location or asset, both linear and non-linear. The work instruction takes into account both physical and chemical weed control methods.

3. ROLES AND RESPONSIBILITIES

Position title	Key Responsibilities Within Process
Team Leaders/Managers (operations)	• Ensure workers adhere to the requirements detailed in this work instruction • Provide budget and resources to manage weed removal in accordance with this work instruction
HSE Advisor	• Assist with any Risk Assessments required for weed removal works • Provide general advice and assistance relating to weed removal
Senior Advisor - Environment & Sustainability	• Ensure this work instruction is current and reviewed • Provide general advice and assistance relating to weed removal
Workers	• Adhere to the requirements detailed in this procedure

4. SAFETY

Prior to commencing weed removal work the Safe work Process must be followed.

5. INTERGRATED WEED CONTROL APPROACH

ATCO employs an integrated weed control approach for weed removal on any ATCO site location or asset. Integrated weed control utilises multiple approaches to weed removal in order to reduce the chances of the weed species adapting to any one control/removal technique.

ATCO will use the following weed removal methods;

- Physical control; and
- Chemical control

5.1 Physical Control

Physical control is the removal of weeds by physical or mechanical means, including;

- Mowing
- Grazing

- Mulching
- Tilling,
- Burning; or
- By hand

The method used often depends on the area of weeds to be managed, what the land is used for, physical characteristics and the value of the land.

It is important that, when using physical control, any item that can move from a weed-infested site to an un-infested site, such as machinery, vehicles, tools and even footwear, is cleaned free of weed seed before moving, to stop the spread of weeds to new areas. Hygiene practices outlined in the Weed and Pathogen Management Procedure must be followed to ensure the spread of weeds is appropriately controlled.

5.2 Chemical Removal

Although the use of chemicals is not always essential, herbicides can be an important and effective component of any weed control program.

In some cases, a weed is only susceptible to one specific herbicide and it is important to use the correct product and application rate for control of that particular weed. In most cases, weeds must be actively growing to be vulnerable to herbicide treatments.

The Australian Pesticides and Veterinary Medicines Authority (APVMA) is the Australian Government authority responsible for the independent assessment and registration of pesticides and veterinary medicines. The APVMA keeps a record of all registered pesticides in Australia, and their approved uses. The APVMA should be referenced to determine suitable pesticides for use.

Although there are a large variety of herbicides available they function in a limited number of ways, known as modes of action. These modes of action determine how the herbicide controls weeds by;

- Speeding up, stopping or changing the plant's normal growth patterns
- Desiccating (drying out) the leaves or stems; or
- Defoliating the plant (making it drop its leaves)

As well as using different modes of action, herbicides can be classified according to how they are taken up by the plant. The main types of herbicides are;

- Contact - these kill plant tissue at or near the point of contact with the herbicide (they do not spread around the plant). Therefore, they require even coverage in their application.
- Systemic - these move through the plant tissues via the plant's circulation system, and can be injected into the plant.
- Residual - these can be applied to the soil in order to kill weeds by root/shoot uptake. They remain active in the ground for a certain length of time, and can control germinating seedlings.

Herbicides also have differing selectivities and can be categorised as either broad spectrum (working on a wide variety of plants) or selective (working on a specific range of plants). It is important to ensure that the herbicide used is applicable to the weed requiring removal/control.

All chemicals used by ATCO workers or contractors must comply with the Chemical Management Guide.

6. PHYSICAL REMOVAL

This work instruction covers the physical removal of weeds by hand only. Where other physical weed control methods are utilised they must be risk assessed prior to being implemented.

The following steps must be followed when physically removing weeds;

- Ensure that appropriate PPE is used when removing weeds; this is inclusive of appropriate safety foot wear, gloves, long sleeved shirts, safety glasses and all required sun protection.
- Always work from un-infested areas towards weed infested areas.
- Carefully replace soil in its original layers. Weeds are encouraged by disturbance of the ground layer.
- When removing weeds manually, workers should ensure that safe manual handling techniques are utilised to minimise risk of injury in accordance with the Hazardous Manual Task Procedure.
- Weeds that are removed should be placed into bags and securely sealed. Sealed bags can be disposed of in general waste bins or at local landfill facilities.

7. CHEMICAL REMOVAL

This work instruction covers the chemical removal of weeds by spraying only. Where other chemical weed control methods are utilised they must be risk assessed prior to being implemented.

The following steps must be followed when chemically removing (spraying) weeds;

- Ensure that the chosen herbicide is suitable for the weed species identified either by referring to the product labelling, manufacturer or APVMA.
- Ensure that appropriate PPE, as defined by the Safety Data Sheets (SDS) is used when spraying weeds.
- All chemicals must be handled and applied strictly in accordance with the directions on the label and current SDS.
- All weed spraying should be undertaken by an appropriately trained employee or contractor in accordance with all relevant legislation, Australian Standards and codes of practice.

Caution:	Conditions such as wind speed and direction, the possibility of rain and proximity to waterways should also be taken into account when preparing to use herbicides.

8. DEFINITIONS

Term	Definition
ATCO	ATCO Gas Australia Pty Ltd
Herbicide	Chemicals that destroy or inhibit the growth of plants
Infested	Weeds present (in a place or site) in large numbers, typically so as to cause negative environmental impacts.
PPE	Personal protective equipment
SDS	Safety data sheet

9. REFERENCES

Supporting Documents	• HSE-GL0002 Chemicals Management Guide • AA-HSE-PR28 Hazardous Manual Task Procedure • Safe Work Process • AGA-HSE-PR20 Weed and Pathogen Management Procedure
Legislation and Standards	• Australian Pesticides and Veterinary Medicines Authority (APVMA)

10. DOCUMENT APPROVAL

	Title	Name	Date
Owner:	Senior Advisor – Environmental & Sustainability	Brad Wallace	04/08/2020
Reviewer:	Manager – Health & Safety	Trudy Windebank	04/08/2020
Approver:	General Manager HSE	Leonard Santana	04/08/2020

11. DOCUMENT HISTORY

Rev	Date	Amended By	Reason for Change
1	03/10/2011	Nick Stingemore	New document created
2	06/08/2020	Brad Wallace	Document updated to include physical and chemical controls as well as roles and responsibilities. Document moved to new template.