

South Australian Country Fire Service

# USE OF METAL CUTTING TOOLS AND WELDERS

## CODE OF PRACTICE

**IMPORTANT NOTE:** *This document was correct at the time of preparation. It is currently subject to review due to legislative changes made during 2021.*

A guide to assist  
in the use of metal  
cutting tools and  
welders outside  
of the fire danger  
season

April 2015



Government  
of South Australia



## Foreword:

The use of metal cutting tools and welders is common practice in both the urban and rural environments.

The use of these tools has been the point of ignition for numerous fires. The main cause of these fires has been from a lack of planning and preparation and inappropriate use of these tools and welders in and around flammable vegetation and other material.

Restrictions apply to the use of metal cutting tools and welders during the declared Fire Danger Season and on Total Fire Ban days as defined in the Fire and Emergency Services Act 2005, and Regulations.

No restrictions are applied to their use outside of the Fire Danger Season and as a consequence many fires result from use of these tools and the lack of consideration of basic fire safety precautions.

## Code History

### 1 GENERAL

#### 1.1 Scope:

This code applies to all persons operating metal cutting tools and welders outside of the declared Fire Danger Season.

This Code of Practice does not cover the actions of "rail grinding" where this activity is undertaken using a fully automatic process.

#### 1.2 Abbreviations:

- **COP** Code of Practice
- **FES Act 2005** Fire and Emergency Services Act 2005

#### 1.3 Definitions

- **Flammable materials** – includes all vegetation, bush or grasses that may be ignited by sparks and embers. Paper, cardboard and domestic wastes are also flammable materials.
- **A portable water spray in good working order** – Is a portable water spray device that is designed to be used for fire fighting operations and maintained to the appropriate Australian Standard. This may also include a Farm Fire Unit or suitable trailer mounted water tank, hose and pump.
- **In the open** – Any area that is not enclosed by 4 walls and a roof (walls and roof sealed).

- **At Hand** – objects would be considered at hand if a person was to take less than 5 steps to reach the object
- **A person who is able to control** – A person who is not under the effect of any alcohol or drugs and of an age and physical ability that they can take reasonable steps to control the prescribed equipment or any fire that may result from the prescribed equipment being used.
- **Fire Danger Season** – a period defined under the *Fire and Emergency Services Act 2005* which may be declared by the CFS Chief Officer for the prohibition and restriction on the use of fire and prescribed equipment in the open. The dates of the Fire Danger Season for each of the 15 Fire Ban Districts are determined each year and are published in the Government gazette and on the CFS website ([www.cfs.sa.gov.au](http://www.cfs.sa.gov.au)). The dates generally fall between the 1st of November and the 30th of April.
- **Metal Cutting Tool** - all tools used for cutting or abrading either by mechanical or thermal means.
- **Welders** - All formats of welding including all electric and gas but not limited to TIG, ARC, MIG, OXY, Spot etc.

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#### 1.4 References:

- AS 1841.2-1997 – *Portable Fire Extinguishers – Specific requirements for Water Type Extinguishers*
- AS 1851.1-1995 – *Maintenance of Fire Protection Equipment – Portable Fire Equipment – portable fire extinguishers and Fire Blankets.*
- *Fire and Emergency Service Act 2005*
- *Fire and Emergency Services Regulations 2005*

#### 1.5 General:

##### 1.5.1 During the Fire Danger Season:

Current legislation allows for cutting, welding, grinding during the Fire Danger Season as prescribed under the *Fire and Emergency Services Act, 2005* and *Regulations*. The Regulations define the safety precautions that must be undertaken during this period.

##### 1.5.2 Total Fire Ban Days:

Total Fire Bans are declared on days of predicted Severe, Extreme and Catastrophic fire weather days. The use of any metal cutting tools and welders in the open is NOT permitted on days declared as a Total Fire Ban unless a schedule 10 permit is issued for its use.

The use of any metal cutting tools and welders on a day declared as a Total Fire Ban day should only be considered for emergency or break down use. If the work can be postponed or reprogrammed then it should be. Where the activity cannot be postponed or is for emergency work then Schedule 10 Permit must be obtained from your local Council or Authorised Officer to undertake your activity.

**NOTE:** The fact that you are applying for a permit to undertake your activity does not guarantee that you will be granted the permit automatically. The Authorised Officer will undertake a risk assessment on the proposed activity and the location and determine if the activity is justified in all circumstances and safe to undertake.

The Authorised Officer will then determine if a permit is to be issued and what permit conditions will be required



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## 2 CODE OF PRACTICE:

### 2.1 Use of metal cutting tools and welders outside of the Fire Danger Season

- 2.1.1 A person must always consider the use of these tools in an appropriate environment.
- 2.1.2 When determining the required 4 metre clearance, it should be considered that the 4 metre clearance commence from where the furthestmost spark from the welding/ grinding activity will be thrown. This may mean having a 10 metre clearance for the operation of the tool, or greater distance as required.
- 2.1.3 Where the above can not be achieved then heat or spark guards must be used to prevent any sparks travelling to vegetation beyond the 4 metre clearance.
- 2.1.4 When using these tools close to vegetation, consideration should be given to having a designated person on fire watch to ensure that rapid intervention can occur, if a fire should start.

### 2.2 Associated Activities

- 2.2.1 The use of equipment associated with the use of metal cutting tools and welders, such as a generator etc. may cause fire ignition and it is recommended that this equipment be located in a fuel-free area and that the exhaust system be well-maintained and in good working order.

## 2.3 Safety Measures

- 2.3.1 Ensure all electrical equipment is in good working order and has been tested and tagged for its use.
- 2.3.2 Ensure the use of an Electrical Leakage Circuit Breaker (ELCB) or Residual Current Device (RCD) (commonly know as a Safety Switch) device. (\*Not applicable to portable generators)
- 2.3.3 Ensure all equipment is in good working order and safe for use prior to commencing any activity.
- 2.3.4 Ensure all appropriate personal protective equipment is being used as per the manufacturer's requirements.
- 2.3.5 Ensure that a portable water spray is at hand and tested, in case a fire starts but be mindful that electricity and water do not mix, therefore do not spray water directly onto any electrical metal cutting tool or welder while it is connected to electricity.
- 2.3.6 Ensure that the working area is clear of flammable materials to the distance required, and that all conditions that may be listed on any permit are being met.
- 2.3.7 The operator (or a person present) **must** have the ability to call 000 immediately if a fire occurs.

## 3 REVIEW

This code will be released for a 12 month trial period and will be reviewed every 2 years after the trial period has ended.



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### SA COUNTRY FIRE SERVICE STATE HEADQUARTERS

Level 7, 60 Waymouth St, Adelaide

**Postal address:** GPO Box 2468, Adelaide SA 5001

**Tel:** 08 8463 4200 **Fax:** 08 8463 4234

**Email:** cfsHQ@cfs.sa.gov.au

**Website:** www.cfs.sa.gov.au

**CFS Bushfire Information Hotline:** 1300 362 361

### REGIONAL OFFICES

#### REGION 1

**Mount Lofty Ranges and Kangaroo Island**

75 Gawler St, Mount Barker SA 5251

**T:** 08 8391 1866

**F:** 08 8391 1877

**E:** cfsr1@cfs.sa.gov.au

#### REGION 2

**Mount Lofty Ranges, Yorke Peninsula and Lower North**

8 Redbanks Rd, Willaston SA 5118

**P:** PO Box 1506 Willaston SA 5118

**T:** 08 8522 6088

**F:** 08 8522 6404

**E:** cfsr2@cfs.sa.gov.au

#### REGION 3

**Murraylands and Riverland**

10 Second St, Murray Bridge SA 5253

**P:** PO Box 1371, Murray Bridge SA 5253

**T:** 08 8532 6800

**F:** 08 8532 6220

**E:** cfsr3@cfs.sa.gov.au

#### REGION 4

**Flinders Ranges, Mid North and Pastoral Areas**

3 Main St, Port Augusta SA 5700

**P:** PO Box 2080, Port Augusta SA 5700

**T:** 08 8642 2399

**F:** 08 8641 0176

**E:** cfsr4@cfs.sa.gov.au

#### REGION 5

**South East**

46 Smith St, Naracoorte SA 5271

**P:** PO Box 8, Naracoorte SA 5271

**T:** 08 8762 2311

**F:** 08 8762 1865

**E:** cfsr5@cfs.sa.gov.au

#### REGION 6

**Eyre Peninsula and West Coast**

32 Matthew Place, Port Lincoln SA 5606

**P:** PO Box 555, Port Lincoln SA 5606

**T:** 08 8682 4266

**F:** 08 8682 6569

**E:** cfsr6@cfs.sa.gov.au



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