

Submission No.231

SUBMISSION TO COMMONWEALTH  
BUSHFIRE ENQUIRY



My name is Allan Lehepuu and I have been an active member of the Rural Fire Service since 1978, originally joining Glenbrook-Lapstone Brigade in the lower Blue Mountains on the outskirts of Sydney, now brigade Captain of Anembo in Cooma-Monaro Shire south-east of Canberra.

These are some thoughts on rural firefighting.

#### **Remote Telecommunication and Radar Installations**

These should have the same fire danger assessment as done for private dwellings in New South Wales. The RFS has a guide for building in bushfire-prone areas and should be used as the standard. The loss or damage to radio communications, mobile phone communication towers would place huge strains on the management of emergency situations, not just fires. Yet, these towers are usually remote and there may not be enough time to organise protection. The same with radar sites, ie: Captains Flat. It is an expensive item to replace just for the sake of clearing around it.

#### **Water-Filling Points**

As you drive across the bridges in your electorates, look to see how easy or difficult it would be to get a tanker down to the stream or river. It would be nice if there was an Australian standard for bridge construction that considered access for tankers to water sources. You can imagine how frustrating it is to see heaps of water and not be able to get to it.

#### **Helicopters**

Rotor wash is a real problem. Embers are blown across containment lines, flames are fanned - the whole disaster. To stand beneath the air crane and see large trees sway, bend and sometimes break, it is quite disturbing. The Kaman K-Max with its long bucket tether is a lot better. Also there is great variability of pilot skills, especially when the first-rank pilots run out of their hours. They are great for protecting high-value assets in a rush, but they have their limitations.

## Cattle in the High Country

Unless cattle eat bushes, sticks and bark, there is really no advantage in having them there. In the Tinderry Nature Reserve, the native animals have grazed down the grasses and herbage already and all that was left was the twigs and bark. That's not to say the National Parks should not have prescribed burns.

## Prescribed Burns

Appended is the current Prescribed Burning Standard Operating Procedures. After going through these SOPs and complying to them, we then have another problem. Consider that locally we only have 12 weeks in autumn and maybe 10 weeks in spring to do burns. Reduce that to 22 weekends because volunteers generally are at work during the week, then allow for wet days, windy days, hot days, Brumbies/Raiders playing and any combinations, you can see how short a time we have to muster crews to do the burn. It can be years to complete an Authorised Prescribed Burn.

Other land managers, ie: National Parks and State Forests, are in a better position of being able to burn mid-week, but generally, are so under-resourced in field staff that they also have problems.

## Observations

With the trend for people having less time to devote to volunteer work, it becomes difficult when the Fire Service, wishing to become more professional, demands more time from volunteers to do the planning, organisation, training and eventually, doing the work.


We are a funny organisation where the grassroots is democratic, voting in it officers. It then goes to the salaried level where the volunteers have some input, but no vote.

I feel there is a widening gap in attitude between the (salaried) hierarchy and volunteers. It is getting harder to involve people in the brigade activities.

With this past summer's fire having happened, this is the ideal situation to maintain the mosaic of burnt and unburnt areas in the high country. We have gone through the pain of losing so much.

Also, the chance to knock weeds on the head. Large areas of noxious weeds in the parks have been burnt out and it would be great if money could be found to allow follow-up spraying and removal of weeds over the coming years. It really is a once-in-a-lifetime opportunity.

Thanks you for allowing me to air my views.

  
Allan Lehepuu

9/05/03



# **Prescribed Burning**

## **S.O.P.s**

### **(2002 Edition)**



THE NEW SOUTH WALES GOVERNMENT

**A NSW Rural Fire Service (RFS) Publication**

**For use by**

**Members of the  
NSW Rural Fire Service**

**Suggested distribution:**

**Regional Managers**

**All Fire Control Officers – one copy**

**All Prescribed Burning Supervisors (PBS) – one copy**

**Planning and Environment Services – 5 copies**

**Mitigation Officers – one copy**

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## P – SOP #1

### Prescribed Burning Activities – General

#### Scope

This SOP covers the general procedures to be observed as regards prescribed burning.

#### Procedures

- Prescribed burning activities are to be conducted consistent with the relevant bush fire risk management plan.
- A Burn Plan is to take into account the safety of members of the public and personnel participating in the burn activity, the protection of property, the protection of environmental values and associated legislative requirements.
- Preparation for the burn is to include a comprehensive assessment of the area involved for potential hazards. Hazards are to be treated by being eliminated, minimised, and/or marked, and/or advised to personnel participating in the burn, as appropriate.
- All personnel participating in the burn are to be thoroughly briefed about:
  - The presence of people or assets in the proposed burn area;
  - The characteristics of the burn area;
  - The current and forecast weather;
  - Objectives of the burn;
  - Specific lighting patterns and techniques;
  - Predicted fire behaviour;
  - General strategy;
  - Hazards and precautions;
  - "no burn" limits, specific tasks;
  - first aid and logistical support;
  - control/command and communications arrangements;
  - the contingency plans for communications breakdowns, escape of fire, hazardous situations and emergencies.
- The lighting patterns should be designed such that operations are conducted within a safe distance of a suitable refuge and not in an area in a direct path of the proposed burn.

All members participating in the burn are to be currently competent in the tasks they are allocated.

- An effective system of control/command and communications in accordance with Incident Control System (ICS) principles is to be applied.
- The prescribed burn shall be under the overall co-ordination of an Incident Controller.

- Procedures applied during the burn activity shall be at least equivalent to the safety standards specified in the Fireground SOPs.
- The LACES safety checklist system (Lookouts – Awareness – Communications – Escape routes – Safety refuges) is to be applied to all prescribed burning activities.
- Prior to undertaking any prescribed burning activity, the Incident Controller is to ensure that any environmental approvals are obtained prior to undertaking the burn and that any conditions attached to that approval are achievable and consistent with the overall safety of the activity.

## **Definitions**

### ***Prescribed Burning***

The application of fire to a pre-determined area and at the time, intensity and rate of spread required to attain planned resource management objectives. It is undertaken in specified environmental conditions.

### ***Burn Plan***

Written instruction detailing how the prescribed burn will be undertaken. (see attachment 1).

### ***Incident Control System***

An operational management system adopted by the RFS for integrating personnel, procedures, facilities, equipment and communications into a common organisational structure.

Incident Controller – the person who has overall control of the burn and is responsible for implementation of the burn plan in the field. The Incident Controller is usually responsible to a senior officer, such as the Fire Control Officer who is remote from the burn site.

## P – SOP #2

### PLANNING FOR A PRESCRIBED BURN

#### Scope

This SOP covers the procedures relating to the planning for a specific prescribed burn.

#### Procedure

A written Burn Plan is to be developed for each prescribed burn. The Plan shall conform to that in attachment 1 and contain:

- A description of the overall objective/s of the burn and how it relates to the relevant Bush Fire Risk Management Plan.
- A description of the burn area, including an accurate map or sketch, indicating the location, status and tenure of the land, size and shape of the burn area, topography, aspect, fuel type/load, access, areas which might be occupied by people (including those that may be susceptible to the impact of smoke), control lines, hazards, areas of potential fire escape, safety refuges, escape routes and water supply.
- Contingency arrangements to be used in the event of any loss of communications, fire escaping from the burn area, hazardous situations and emergencies.
- The range of weather, fuel and other conditions needed to achieve the prescribed burn intensity. "No burn" prescriptions will be applied to:
  - The presence of people or assets in the proposed burn area;
  - The minimum moisture content for surface fuels;
  - The minimum relative humidity
  - The maximum temperature;
  - The maximum wind speed and any critical wind direction/s;
  - The maximum actual G/FFDI, BKDI (or SDI);
  - The acceptable flame height, scorch height, and anticipated rate of spread of the fire;
  - Legal restrictions on burn activities.
- The proposed ignition technique/s and pattern/s.  
**Note:** Where the risk assessment identifies unacceptable risk to firefighter safety, the proposed ignition technique will not be used.
- The resources needed to safely and effectively conduct the burn, including the size of crew, specialist skills needed, fire behaviour monitoring, equipment, supplies, communications, information, supervision and planning for contingencies.
- The notifications and permissions required under legislative and Service requirements including permission of the landowner to enter the property.
- The identification of any environmental assets to be protected as part of the burn plan.
- Wind directions that may adversely impact on susceptible members of the community arising from the impact of smoke.

#### Definitions

##### **No Burn Limit**

No burn limit is a parameter that restricts a prescribed burning operation from commencing or continuing e.g. a maximum temperature or areas containing fire sensitive vegetation.



## P – SOP #3

### PREPARING FOR A PRESCRIBED BURN

#### Scope

This SOP covers the procedures relating to the preparation for a specific prescribed burn.

#### Procedure

- A comprehensive assessment of the area involved for potential hazards to personnel. These hazards are to be treated by being eliminated, minimised, and/or marked, and/or advised to personnel participating in the burn, as appropriate. Hazards to personnel may typically include:
  - Localised steep slopes and/or northerly and westerly aspects;
  - Localised areas of high fuel load and/or elevated fuels;
  - Localised stands of dead trees or hazardous vegetation;
  - Rocky ground, mine shafts, cliffs and/or hazardous substances.
- Confirmation that conditions in the area of the burn are still as described in the Burn Plan. Such conditions may include land status and tenure, occupation, fuel type, fuel moisture content, fuel load, topography, access, escape routes and safe refuges.
- Confirmation that actual weather conditions are within the limits specified for the prescribed burn. (Note: Special weather forecasts for the burn can be requested through State Operations if required.)
- Confirmation that the equipment needed for the burn is available and serviceable.
- Confirmation that the personnel involved in the burn are currently competent. In particular that:
  - The overall Incident Controller is certified competent either in (National Module) 3.17 Prescribed Burning 1, or RFS Prescribed Burning Supervisor (PBS) level. Where this is not possible, the FCO (until 1 October 2003) may authorise in writing an experienced individual to supervise the burn, whom the FCO is satisfied will conduct the burn according to these SOPs.
  - Officers supervising personnel are competent to RFS Crew Leader level (CL, CLW or CLG, as appropriate to the area), or equivalent;
  - Personnel not working under constant and direct supervision are competent to perform required tasks determined by the Incident Controller;
  - Personnel using a prescribed burning event for training or associated purposes should be in company with a mentor who is a person who satisfies any of the above fire fighting competencies.
- Confirmation that appropriate fire behavior and weather monitoring services are available.
- Confirmation that traffic management arrangements have been established as outlined in the Fireground SOPs and relevant training material.
- Confirmation of the provision of first aid and safety officer positions are in place.

- Confirmation that communications facilities are available and serviceable, and that provisions exist for actions to take in the event of a communications failure.
- Briefings for all personnel about the prescribed Burn Plan should be in a SMEACS format. In particular, covering the:
  - characteristics of the burn area;
  - objectives of the burn;
  - general strategy;
  - fighting patterns and techniques;
  - hazards and precautions;
  - "no burn" limits;
  - specific tasks;
  - first aid and logistical support;
  - any property or environmental assets to be protected;
  - control/command and communications arrangements;
  - and the contingency plans for communications breakdowns, escape of fire, hazardous situations and emergencies.

### Definitions

- Nil

## P – SOP #4

### CONDUCTING A PRESCRIBED BURN

#### Scope

This SOP covers the procedures relating to conducting a specific prescribed burn.

#### Procedure

- In general prescribed burns should not be conducted at a Forest Fire Danger Index (FFDI) of greater than 12 during the conduct of the burn.
- Where a prescribed burn exceeds an FFDI of 12, the following conditions must be met:
  - the area to be burnt is small and containable;
  - all control lines are well established and constantly patrolled
  - adequate resources are on hand to rapidly and easily extinguish any potential escape
  - the weather forecast for the following days is favourable;
  - the entire area of the prescribed burn must be secured and safe before personnel leave the scene;
  - the fire ground will be patrolled after the fire until the Incident Controller declares the site safe;
  - the Incident Controller has obtained the specific approval of the relevant senior officer (generally the FCO).
- Prior to lighting up the prescribed burn, the Incident Controller shall ensure that the Fire Control Officer (or delegate) is notified of the imminent intention to implement the burn plan.
- Procedures used during a prescribed burn are to be at least of the same safety standard as those specified for equivalent activities in Fireground SOPs.
- A Safety Officer (reporting directly to the Incident Controller) is to be appointed for all prescribed burns. At smaller burns, the Safety Officer may have other functions (e.g. monitoring weather conditions), but shall regard their Safety Officer function as their primary role.
- The LACES safety checklist system shall be used. That is:
  - **Lookouts** – Persons shall be nominated to observe fire and weather behaviour and immediately report any trend towards exceeding the specified “no burn” limits;
  - **Awareness** – Personnel shall be kept advised of current conditions and the progress of the burn via the specified chain of command/communications;
  - **Communications** – At all times, all personnel are to be able to maintain two-way communications via the specified chain of command;
  - **Escape Routes** – Are to be specified, available, adequate, known to all personnel and used when needed;
  - **Safe Refuges** – Are to be adequate and available close by. Their location is to be known by personnel in the area and they are to move immediately to such refuge areas if conditions are, or are likely, to exceed the specified “no burn” limits.