

# Personal protective clothing, equipment and uniform Recommended practice



Version 03, August 2013



Equipment Research & Design Logistics Support

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#### Published by:

Equipment Research & Design Logistics Support FRNSW Amarina Avenue (Locked Bag 13) Greenacre NSW 2190

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TRIM: D13/5125

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# Contents

| Using this | s doc          | ument   | . vii   |
|------------|----------------|---|---------|
|            | Struc          | ture  | vii     |
|            | Gloss          | sary  | vii     |
|            | Warn           | ings, Cautions and Notes                            | ix      |
|            | Elect          | ronic navigation                                    | ix      |
|            | Docu           | ment control  | х       |
| Section    | 1              | Policy  | 1       |
|            | 1.1            | Introduction  | 1       |
|            | 1.2            | Scope   | 1       |
|            | 1.3            | Wearing PPE and uniform                             | 1       |
|            | 1.4            | Responsibilities                                    | 2       |
|            | 1.4.1          | Off duty  | 3       |
|            | 1.5            | Reading   | 3       |
|            | 1.6            | Contact   | 3       |
| Section    | 2              | Supply and disposal                                 | 4       |
|            | 2.1            | Initial supply and issue                            | 4       |
|            | 2.2            | Identification                                      | 4       |
|            | 2.3            | Alterations   | 4       |
|            | 2.4            | Storage   | 4       |
|            | 2.5            | Sale, exchange and disposal                         | 5       |
|            | 2.5.1          | Misuse of uniforms and insignia                     | 5       |
|            | 2.5.2          | Sale, exchange or disposal of uniforms and insignia | 5       |
|            | 2.5.3          | Hiring or borrowing uniforms or insignia            | 5       |
|            | 2.6            | Emergency issue of helmets                          | 5       |
| Section    | 3              | Fact sheets – PPE                                   | 6       |
|            | 3.1            | Scope   | 6       |
|            | 3.2            | PPE items   | 6       |
|            | 3.3            | Protective clothing                                 | 9       |
|            | 3.3.1          | T-shirt   | 9       |
|            | 3.3.2          | Shorts  | 9       |
|            | 3.3.3<br>3.3.4 | Duty wear shirt and trousers<br>Operational socks   | 9<br>10 |
|            | 3.3.4<br>3.3.5 | Protective hood                                     | 10      |
|            | 3.3.6          | Structural firefighting coat and trousers           | 11      |
|            | 3.3.7          |   | 16      |
|            | 3.3.8          | High-visibility vest                                | 17      |
|            | 3.3.9          | ICS tabards   | 17      |
|            | 3.4            | Firefighting boots                                  | 18      |
|            | 3.5            | Helmets   | 18      |
|            | 3.5.1          | Structural firefighting helmet                      | 18      |
|            | 3.5.2          | Multi-purpose helmet                                | 19      |

|         | 3.6              | Gloves  | 20       |
|---------|------------------|---|----------|
|         | 3.6.1            | Firefighting gloves                                   | 20       |
|         | 3.6.2            | General purpose gloves                                | 20       |
|         | 3.6.3            | Disposable gloves                                     | 21       |
|         | 3.6.4<br>3.6.5   | Electrical gloves                                     | 21<br>22 |
|         |                  | Riggers gloves  |          |
|         | 3.7<br>3.7.1     | Eye protection<br>BA facemask                         | 23<br>23 |
|         | 3.7.2            |   | 23       |
|         | 3.7.3            | ,               | 24       |
|         | 3.7.4            |   | 24       |
|         | 3.8              | Hearing protection                                    | 24       |
|         | 3.9              | Respiratory protection                                | 25       |
|         | 3.9.1            | Breathing apparatus                                   | 25       |
|         | 3.9.2            | P2 particle mask                                      | 26       |
|         | 3.9.3            | Full facemask air-purifying respirators SE400 and S10 | 27       |
|         |                  | Chemical protection                                   | 28       |
|         | 3.10.            | 5   | 28       |
|         | 3.10.2<br>3.10.3 |   | 28<br>28 |
|         | 3.10.            | •   | 30       |
|         |                  | CPR personal pack                                     | 30       |
|         |                  | Other duty wear and PPE items                         | 31       |
|         | 3.12.            | •   | 31       |
|         | 3.12.2           | ,   | 31       |
|         | 3.12.3           |   | 31       |
|         | 3.12.4           |   | 31       |
|         | 3.12.            | <b>o i</b>  | 32       |
|         | 3.12.0           |   | 32       |
|         | 3.12.3<br>3.12.8 |   | 32<br>32 |
|         | 3.12.0           | 8 PPE kit bag   | 52       |
| Section | 4                | Inspection and maintenance of clothing and PPE        | . 33     |
|         | 4.1              | Scope   | 33       |
|         | 4.2              | Personal protective clothing                          | 33       |
|         | 4.2.1            | Inspection  | 33       |
|         | 4.2.2<br>4.2.3   | Laundering<br>Contaminated items                      | 33<br>33 |
|         | 4.2.4            | Repair  | 34       |
|         | 4.2.5            | Defect examples                                       | 34       |
|         | 4.3              | Firefighting boots                                    | 36       |
|         | 4.3.1            | Inspection and maintenance                            | 36       |
|         | 4.3.2            | Defect examples                                       | 36       |
|         | 4.4              | Helmets   | 37       |
|         | 4.4.1            | Inspection and maintenance                            | 37       |
|         | 4.4.2            | Defect examples                                       | 37       |
|         | 4.5              | Gloves  | 38       |
|         | 4.5.1            | Inspection and cleaning                               | 38       |
|         | 4.5.2            | Glove defect examples                                 | 38       |
|         | 4.6              | Eye protection  | 39       |
|         | 4.7              | Hearing protection                                    | 39       |
|         | 4.8              | Respiratory protection                                | 40       |

|         | 4.9 Chemical protective clothing                      | 40       |
|---------|---|----------|
|         | 4.9.1 Inspection                                      | 40       |
|         | 4.9.2 After use                                       | 40       |
|         | 4.9.3 Reusable splash suit hygiene wash               | 41       |
|         | 4.9.4 FE suit cleaning and testing                    | 41       |
|         | 4.9.5 FE suit servicing                               | 41       |
| Section | 5 Managing heat stress                                |          |
| Section | 6 Wearing PPE   |          |
|         | 6.1 Selecting appropriate PPE                         | 43       |
|         | 6.2 PPE selection guide                               | 44       |
|         | 6.3 Working on or near roadways                       | 45       |
|         | 6.4 Level 1 PPE                                       | 46       |
|         | 6.4.1 Definition                                      | 46       |
|         | 6.4.2 Application                                     | 47       |
|         | 6.5 Level 2 PPE                                       | 48       |
|         | 6.5.1 Definition                                      | 48       |
|         | 6.5.2 Application                                     | 48       |
|         | 6.6 Level 3 PPE                                       | 49       |
|         | 6.6.1 Definition                                      | 49       |
|         | 6.6.2 Application                                     | 49       |
|         | 6.7 Level 4 PPE                                       | 50       |
|         | 6.7.1 Definition                                      | 50       |
|         | 6.7.2 Application                                     | 50       |
|         | 6.8 Wearing hazmat PPE                                | 52       |
|         | 6.9 Level A hazmat PPE                                | 53       |
|         | 6.9.1 Definition<br>6.9.2 Application                 | 53<br>53 |
|         | 6.10 Level B hazmat PPE                               | 54       |
|         | 6.10.1 Definition                                     | 54<br>54 |
|         | 6.10.2 Application                                    | 54       |
|         | 6.11 Level C hazmat PPE                               | 55       |
|         | 6.11.1 Definition                                     | 55       |
|         | 6.11.2 Application                                    | 55       |
| Section | 7 Uniform   | 56       |
|         | 7.1 Uniform items                                     | 56       |
|         | 7.2 Maternity uniform                                 | 57       |
| Section | 8 Wearing uniforms                                    |          |
| Section | -   |          |
|         | 8.1 Dress uniform<br>8.1.1 Definition                 | 58       |
|         | 8.1.1 Definition<br>8.1.2 Application                 | 58<br>59 |
|         | 8.1.3 Winter dress uniform                            | 59       |
|         | 8.2 Ceremonial dress uniform                          | 60       |
|         | 8.2.1 Definition                                      | 60       |
|         | 8.2.2 Application                                     | 60       |
|         | 8.3 Ceremonial dress uniform – modified formal option | 61       |
|         | 8.3.1 Definition                                      | 61       |
|         | 8.3.2 Application                                     | 61       |

|           | <ul> <li>8.4 Mess dress uniform</li> <li>8.4.1 Definition</li> <li>8.4.2 Application</li> <li>8.5 Physical training</li> <li>8.5.1 Definition</li> <li>8.5.2 Application</li> <li>8.6 Uniform selection guide – firefighters and officers</li> <li>8.7 Uniform selection guide – senior officers</li> </ul>  | 62<br>62<br>63<br>63<br>63<br>64<br>65   |
|-----------|--|--|
| Section   | <ul> <li>9 Rank insignia and accoutrements</li></ul>   | 66<br>66<br>66<br>67<br>68<br>69<br>70<br>70<br>70                                     |
| Section   | <ul> <li>10 Hairstyles and jewellery</li> <li>10.1 Hairstyles</li> <li>10.1.1 Wigs and synthetic hairpieces</li> <li>10.2 Facial hair</li> <li>10.3 Body jewellery</li> <li>10.4 Other jewellery</li> </ul>  | 71<br>71<br>71<br>71<br>72<br>72   |
| Section   | <ul> <li>11 Community Fire Unit PPE</li> <li>11.1 Responsibilities</li> <li>11.2 Fact sheets – CFU PPE</li> <li>11.2.1 CFU personal protective clothing</li> <li>11.2.2 CFU helmet</li> <li>11.2.3 CFU boots</li> <li>11.2.4 General purpose gloves</li> <li>11.3 CFU T-shirt</li> <li>11.3.1 CFU baseball cap</li> <li>11.3.2 CFU kit bag</li> <li>11.3.3 CFU T-shirt, baseball cap and kit bag maintenance</li> <li>11.4 Wearing CFU PPE</li> <li>11.4.1 Definition</li> <li>11.4.2 Application</li> </ul> | 73<br>73<br>73<br>74<br>75<br>75<br>76<br>76<br>76<br>76<br>76<br>76<br>76<br>77<br>77 |
| Reference | es   | 78   |
| Index     |  | 79   |
| Documen   | t information  | 82<br>82<br>82<br>83   |

# Using this document

# Structure

This recommended practice contains the following sections:

- Section 1: <u>Policy</u> Section 2: Supply and disposal
- Section 3: <u>Fact sheets PPE</u>
- Section 4: Inspection and maintenance of clothing and PPE
- Section 5: Managing heat stress
- Section 6: <u>Wearing PPE</u>
- Section 7: Uniform
- Section 8: <u>Wearing uniforms</u>
- Section 9: Rank insignia and accoutrements
- Section 10: <u>Hairstyles and jewellery</u>
- Section 11: <u>Community Fire Unit PPE</u> Index Document information

# Glossary

members

This glossary includes a range of terms relevant to personal protective equipment you may encounter in your duties. Not all terms will appear in this document.

For a full glossary of terms in use within FRNSW, see the <u>Glossary of FRNSW</u> terms.

air-purifying respirator A respirator which purifies ambient air. Air-purifying respirators may be powered or unpowered and have either a full or half facemask. Air purifying respirators must be rated for the contaminant against which they are used, must not be used in atmospheres immediately dangerous to life or health, and use a protection factor defined by AS/NZS 1715 to describe the level of protection provided.

Community Fire Unit Registered Community Fire Unit (CFU) volunteers.

- duty wear Duty wear clothing provides the basic level of protection and is worn in the station and at incidents unless a risk assessment identifies that a higher level of protection eg, structural firefighting protection, bushfire protection or chemical protection clothing is required. Duty wear is an item of personal protective clothing.
- firefighter All permanent and retained firefighters and officers.
- galatea The FRNSW ceremonial dress uniform jacket.
- IC See Incident Controller.

| Incident Controller                    | The person in charge of an incident.  |
|--|---|
| officer                                | Deputy Captain, Captain, Station Officer and above.   |
| officer in charge                      | The person in charge of any members of a permanent fire brigade present at a place or, if no members of a permanent brigade are present, the person in charge of any members of a retained brigade present at a place.  |
| OIC                                    | See officer in charge.  |
| permanent firefighters                 | Full time firefighters and officers employed under the Crown Employees (NSW Fire Brigades Permanent Firefighting Staff) Award.  |
| personal protective clothing           | Personal protective clothing (PPC) is an encompassing term that includes all items of clothing worn for personal protection. This includes duty wear, bushfire, structural firefighting and chemical protective items.  |
| personal protective<br>equipment       | Personal protective equipment, or PPE, is equipment which helps protect the wearer in a hazardous environment. PPE includes personal protective clothing, but also respiratory protective items, safety glasses, etc.   |
| respiratory protection                 | Personal protective equipment which helps protect the wearer from airborne hazards, including dust, gases, extreme heat and low oxygen. Respiratory protective equipment includes self-contained breathing apparatus, and airpurifying respirators such as P2 particle masks and the SE400 and S10 respirators. |
| retained firefighters                  | Part-time firefighters and officers paid a monthly retainer, plus payments for attendance at incidents, drills and other authorised duties. In Fire and Rescue NSW, a firefighter employed under the <i>Crown Employees (NSW Fire Brigades Retained Firefighting Staff) Award</i> .                             |
| senior officer                         | An officer of the rank of Inspector or above.   |
| SIMS                                   | See Station Inventory Management System.  |
| Station Inventory<br>Management System | The FRNSW system for inspecting and maintaining appliances and the operational equipment issued to personnel and installed on appliances.   |
| structural firefighting clothing       | Those elements of personal protective clothing which must be worn for structural firefighting, including structural firefighting coat and trousers, and the protective hood.  |

# Warnings, Cautions and Notes

Throughout this manual, you will find statements titled: Warning, Caution, and Note. These consist of a short piece of information highlighting a hazard or providing additional clarification, or both. Each of these statements has a particular meaning:

# 🕱 🛛 🗰 🕄

A warning indicates that personal injury may result if the recommended procedures are not followed – and indicates how to avoid such injury. While the emphasis of warnings is on avoiding injury, the situations described may also involve damage to equipment.

#### 

A caution indicates that equipment may be damaged or data might be lost if recommended procedures are not carefully followed, and indicates what to do to avoid such damage. Personal injury is not expected.

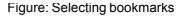
# <u> ΝΟΤΕ</u>

A note clarifies an operational procedure or presents important information relevant to the text. Don't use a Note if injury, equipment damage or data loss is possible.

# Electronic navigation

This document has been produced in PDF. The electronic document has a number of features which aid navigation.

- In the left frame of the Acrobat Reader window are bookmarks which replicate the contents page. Click the bookmark to go to that heading.
- To expand a bookmark to a list of subheadings, click the '⊞' beside the bookmark.
- In the body of the document you will find cross references. For instance: See <u>Electronic</u> <u>navigation</u>, highlighted in blue. Your cursor icon changes to a pointing finger when over a link. Click these to go to the referenced section, table or figure.





- The contents page has live links to the referenced pages. Your cursor changes to a pointing finger when over a link. Click the heading to go to that page.
- The index is arranged alphabetically and has live links to the source text. Your cursor icon changes to a pointing finger when over a link. Click the page number to go to the text.
- To return to either the index or contents page, click any other bookmark, and then click the index or contents bookmark.

# Document control

This recommended practice is a managed document. This document will become uncontrolled if printed, saved, copied or emailed.

Wherever possible, refer to the Equipment Toolkit on the FRNSW Intranet for the latest recommended practices.

If this document has been printed, copied or emailed, check the validity by confirming the version number and the issue date in the footer with those of the document on the Intranet.

#### 

The Equipment Toolkit always displays the most recently approved document.

# Section 1: Policy

# 1.1 Introduction

Fire & Rescue NSW (FRNSW) is committed to:

- Maintaining and improving workplace health, safety and welfare.
- Reducing the incidence and severity of workplace accidents, injuries, illnesses and near-misses.
- Enhancing community confidence and demonstrating professionalism in everything we do.

To achieve safety objectives in accordance with the *Work Health and Safety Act 2011* (NSW) and to support the organisation's professional image, FRNSW provides firefighters with personal protective equipment and dress uniform.

This document will be reviewed on a six monthly basis.

## 1.2 Scope

This recommended practice instructs firefighters in the correct wearing, operation, inspection and maintenance of standard issue personal protective equipment (PPE) and dress uniform.

This recommended practice includes:

- all PPE and uniform items issued to permanent and retained firefighters
- all PPE and uniform items issued to community fire unit members
- all PPE installed on appliances.

Items which have their own recommended practice, such as breathing apparatus and chemical protective clothing, are mentioned in context but not described in detail. References to the relevant documents are included.

This recommended practice does not include:

- cold climate uniform and duty wear items issued to firefighters
- uniform and PPE items for administrative and trades staff
- height safety cordage and equipment, which is covered in Recommended practice, *Height safety equipment*
- PPE items for chainsaw operations, which are covered in Recommended practice, *Chainsaws: Husqvarna 372XP and 576XP*
- PPE items for welding and hot cutting operations.

# 1.3 Wearing PPE and uniform

Firefighters are required to wear PPE to:

- protect them from harm
- aid in achieving operational objectives.

Personal protective clothing (PPC) and dress uniform are also important symbols of rank, organisation and respect. Smart PPC and uniform:

- contributes to morale and discipline
- suggests organisation and professionalism
- reflects credit on the individual and the organisation
- identifies firefighters as members of FRNSW.

Except when required to dress for specific tasks and work, health and safety reasons, firefighters must, whenever possible, dress consistently to reinforce the public's image of, and confidence in, FRNSW.

## 1.4 Responsibilities

Firefighters must:

- Inspect and maintain a complete kit of the PPE and dress uniform items issued to them so that they are clean and in an operational condition.
- Ensure they have sufficient PPE and dress uniform at their place of work to don level 1 – 4 PPE and winter dress uniform. Levels of PPE are defined in <u>Section</u> <u>6: 'Wearing PPE' on page 43.</u>
- Correctly wear PPE and dress uniform as directed that is appropriate to their current task and any hazards and risks.
- If required by the nature of the hazard, upgrade their PPE and immediately notify their supervisor.
- Remove, store and clean PPE in order to minimise contamination risks.
- Inspect and restore PPE to an operational state after use and on return to the station.

Firefighters must not:

- Wear defective PPE.
- Wear PPE or dress uniform in a manner, or under circumstances, likely to bring discredit upon themselves, FRNSW or the Government of NSW.
- Wear unauthorised combinations of dress uniform, PPE and non-uniform clothing.

Motor drivers and Engine Keepers must inspect and maintain the PPE installed on the appliances for which they are responsible.

Incident Controllers and FRNSW Commanders at multi-agency incidents must maintain a process of dynamic risk assessment and consult the appropriate subject experts to determine the correct level of PPE.

Commanders and managers must:

- Ensure each firefighter receives an initial issue of PPE and dress uniform.
- Immediately arrange for defective items of PPE to be replaced or repaired.
- Ensure firefighters comply with their responsibilities.
- Monitor the requirements of this recommended practice in consultation with firefighters under their command or supervision.

When an item of PPE or uniform is implicated in a safety issue, the item should be quarantined in line with <u>In Orders 2008/18</u>, 'Equipment malfunctions and <u>quarantine procedures</u>' and a *Notification of Injury, Illness, Exposure and Near Miss* (NIIENM) form initiated.

## 1.4.1 Off duty

PPE (including duty wear) and dress uniform must not be worn off duty. The Commissioner may, however, grant permission for a specific event, provided that:

- An application in writing is made to the appropriate Director stating the circumstances of the event.
- No claim for any purpose is made against FRNSW as a result of approval being granted.

Exceptions:

- Retained firefighters only may wear duty wear when responding to an emergency call or attending drill from home.
- Firefighters may wear dress uniform on journeys between the workplace and home.
- members of an Incident Management Team may wear PPE when responding from home.

## 1.5 Reading

This recommended practice references a range of other FRNSW documents. It must be read in conjunction with those documents.

## 1.6 Contact

Any queries regarding the equipment or procedures described in this document should be directed to the Manager, Equipment Research & Design.

# Section 2: Supply and disposal

# 2.1 Initial supply and issue

Refer to <u>In Orders 2008/12</u>, 'Initial issue of uniform and protective clothing' and the <u>Employee Self Service</u> portal for instructions and entitlements regarding:

- the initial issue of uniform
- ongoing supply of uniform
- personal protective equipment
- spare parts.

## 2.2 Identification

Immediately after receiving any PPE or dress uniform issued to them, firefighters must clearly mark their employee service number and name on the label. If the item is already identified as belonging to that person, (eg, a helmet with a name label) there is no need to make any further marking.

# 2.3 Alterations

Dress uniform and personal protective equipment must not be altered without authorisation. Unauthorised alterations of PPE may compromise the level of protection provided.

Authorised alterations are provided by the supplier of the item. Refer to <u>In Orders</u> 2008/26, 'Total apparel management – supply of PPE, general uniform and <u>accoutrements'</u> for instructions.

## 2.4 Storage

PPE and dress uniform must be stored neatly in a clean and operational condition to avoid damage and crushing.

When off duty, firefighting PPE and the PPE kit bag must be stored neatly on the station pegs or racks. Any other clean PPE must be secured in the firefighter's locker. Firefighters going on annual leave or any other extended leave, should remove their PPE from the station pegs or racks.

Senior officers and operational support staff may take their PPE home or stow it in their motor vehicle, provided it is kept in a clean and operational condition to avoid damage and crushing. This allows them to respond directly to incidents.

Dirty PPE must be laundered before being stored.

# 2.5 Sale, exchange and disposal

## 2.5.1 Misuse of uniforms and insignia

Section 63B of the <u>State Emergency and Rescue Management Act 1989</u> makes it an offence to:

- Manufacture, sell, exchange or hire FRNSW insignia or uniform (including PPE and other items marked with FRNSW insignia) without authority.
- Use or display FRNSW uniform or insignia with the intention to deceive, ie to impersonate an FRNSW employee, member or volunteer.

The aim of this legislation is to restrict access to emergency services' uniforms and insignia to prevent their use by terrorists, criminals and others with the wrong intent.

Specific exemptions apply for someone using uniform or insignia for public entertainment or with other reasonable excuse. These exemptions are intended to protect, for example, members of the community staging fund-raising events to support emergency services. They also offer protection to genuine collectors of emergency services uniform or insignia.

#### 

FRNSW's logos are also protected by copyright and trademark laws. Refer to <u>In Orders 2005/27, 'Fire and Rescue NSW logos'</u>.

## 2.5.2 Sale, exchange or disposal of uniforms and insignia

PPE, uniforms and insignia must not be sold or given away without permission from the Assistant Director Operational Logistics.

PPE, uniforms or insignia that are disposed of must be destroyed by cutting, shredding or another means so as to make them unusable prior to disposal.

FRNSW patches may be exchanged with genuine collectors or those with a showcase of emergency services insignia who have no intention to deceive through their display.

Any employee who sells, exchanges, keeps or disposes of FRNSW goods without authority may be referred to Workplace Standards and disciplinary proceedings may be initiated against them. Workplace Standards may also be required, depending on circumstances, to refer the matter to the NSW Police and/or ICAC.

FRNSW monitors Internet auction sites such as eBay. Any instances of FRNSW uniform or equipment appearing for sale on these types of sites will be referred to Workplace Standards who may refer the matter to NSW Police and/or ICAC.

For more information, refer to In Orders 2007/6, 'Disposals policy'.

### 2.5.3 Hiring or borrowing uniforms or insignia

Refer all requests to hire or borrow uniform or insignia to the Manager ComSafe Services.

# 2.6 Emergency issue of helmets

Zone offices must maintain one multi-purpose helmet and one structural firefighting helmet for emergency issue. If used, order a replacement the next working day.

# Section 3: Fact sheets – PPE

# 3.1 Scope

Sections 3 and 4 describes items of clothing and PPE which can be worn while on duty, excluding occasions when dress uniform is required. PPE worn in the Hot Zone is determined by risk assessment. Minimum levels of PPE preclude some items, eg the sun hat and beanie, being in the Warm or Hot Zone, but they may be worn, for example, during rehabilitation. Levels of PPE are defined in <u>Section 6:</u> <u>(Wearing PPE' on page 43.</u>

For the inspection and maintenance of these items, see <u>Section 4: 'Inspection and</u> maintenance of clothing and PPE' on page 33.

For a guide on what PPE to wear at incidents, see <u>Section 6.2: 'PPE selection</u> guide' on page 44.

# 3.2 PPE items

| Item                         | Graphic | Item                             | Graphic |
|------------------------------|---------|----------------------------------|---------|
| Duty wear shirt              |         | Duty wear trousers               |         |
| Operational socks            | //      | Duty wear belt                   |         |
| CPR personal pack            |         | Shorts                           |         |
| T-shirt                      |         | Structural firefighting trousers | H       |
| Structural firefighting coat |         | Protective hood                  |         |

#### Table 1 List of PPE items

| Item   | Graphic | Item  | Graphic |
|--|---------|---|---------|
| Firefighting boots   |         | Structural firefighting helmet                |         |
| Structural firefighting gloves                               |         | Multi-purpose coat                            |         |
| Breathing apparatus  |         | General purpose<br>firefighting gloves        |         |
| Multi-purpose helmet   | 0.0     | Safety goggles                                |         |
| P2 masks   |         | Electrical over gloves                        |         |
| Electrical gloves  |         | Chemical protective<br>clothing – splash suit |         |
| Chemical protective<br>clothing – fully<br>encapsulated suit |         | Chemical protective gloves                    |         |
| Chemical protective boots                                    | H       | Ear muffs                                     |         |
| Disposable gloves  |         | Safety glasses                                |         |

#### Table 1 List of PPE items

| Item          | Graphic | Item         | Graphic |
|---------------|---------|--------------|---------|
| Ear plugs     |         | ICS tabard   |         |
| Safety vest   | FIRE    | PPE kit bag  |         |
| Raincoat      |         | Baseball cap |         |
| Winter jacket |         | Sun hat      | Nowes   |
| Beanie        | FRNSW   |              |         |

#### Table 1 List of PPE items



## NOTE

Chemical protective clothing and respiratory protective items are typically installed on appliances rather than issued to individuals.

# 3.3 Protective clothing

## 3.3.1 T-shirt

The T-shirt may be worn as general outerwear in and around stations and when participating in fitness programs.

When worn with duty wear trousers, Tshirts must be neatly tucked in at all times.

T-shirts may be worn instead of duty wear shirts under either the structural firefighting or multi-purpose coat, however, the duty wear shirt must be readily available and donned when the coat is removed.



Except as listed above, T-shirts must not be worn as outer wear when off station premises or during activities where firefighters are in view of the public.

Only FRNSW issued T-shirts may be worn while on duty.

### 3.3.2 Shorts

Shorts are worn when participating in fitness programs.

It is recommended that duty wear trousers be worn under structural firefighting trousers. However firefighters may wear shorts for this application. Duty wear trousers must be readily available and donned over the shorts when structural trousers are removed.

Only FRNSW shorts may be worn while on duty.

## 3.3.3 Duty wear shirt and trousers

Firefighters on operational duty must wear the duty wear shirt and trousers whenever:

- they are away from the station
- a higher level of PPC isn't required. Refer to <u>'Wearing PPE' on page 43.</u>

#### Shirt

The duty wear shirt provides basic mechanical, thermal and sun protection. The shirt is designed as general work wear that is comfortable and allows movement. Figure 2 Shorts



#### Figure 3 Duty wear shirt



The shirt must be neatly tucked in at all times. The sleeves must be rolled down and buttoned closed.

#### **Duty wear trousers**

Duty wear trousers provide thermal and mechanical protection. They comply with AS/NZS 4824:2006 for wildland firefighting clothing and AS 1906.4:2010 for high-visibility materials for safety garments used for road traffic control.

The duty wear trousers are provided to protect the wearer from radiant heat and physical hazards during general work and at incidents. Duty wear trousers are designed to be comfortable, light and flexible to avoid inhibiting performance and to help prevent heat stress.

The leg cuffs are threaded with elastic cord and may be closed to a comfortable fit around the ankle. Tightening the cuff prevents the entry of debris and maintains the interface with firefighting boots to prevent the wearer's leg being exposed. Loosening the cuff improves airflow to remove metabolic heat.

The cuffs should be tightened for firefighting and other operations where heat may enter at the leg, but should be loosened at other times.

#### Figure 4 Duty wear trousers



#### 3.3.4 Operational socks

Operational socks provide moderate thermal protection and must be worn with firefighting boots and ankle boots.

#### 3.3.5 Protective hood

The protective hood provides thermal protection to the head, neck and shoulders and complies with NFPA 1971, *Standard on protective ensembles for structural fire fighting and proximity fire fighting*.

The hood is provided to protect the wearer from hazards such as explosion, flashover and bushfire over-run. It also insulates the wearer from ambient heat which, conversely, inhibits the release of metabolic heat. This increases the risk of heat stress.

The protective hood must be carried by firefighters at all fires. When required, it is

Figure 5 Protective hood



worn under the structural firefighting coat or multi-purpose coat and the face opening is pulled up over the head. When worn with SCBA, the facemask must be fitted and adjusted before pulling the hood up so the facemask harness is covered by the hood. The face opening of the hood is then adjusted to cover the edge of the facemask seal.

## 🕱 WARNING

Heat stress must be monitored whenever protective hoods are worn, particularly during operations in high ambient temperatures. Officers and firefighters must apply the practices for managing heat stress listed in <u>Section 5</u>.

#### 3.3.6 Structural firefighting coat and trousers

#### Introduction

When worn together, the structural firefighting coat and trousers comply with AS/ NZS 4967:2009, *Protective clothing for structural firefighting*, and AS 1906.4:2010 for high-visibility materials for safety garments used for road traffic control.

The coat and trousers protect the wearer from radiant, convective and conducted heat (including flame contact), liquids, abrasion and cuts. The coat and trousers are designed to interface with and overlap other protective equipment (i.e. helmet, gloves, boots and protective hood) in all body postures.

The coat and trousers consist of:

- an aramid outer shell
- an internal layer with an aramid felt thermal barrier with silicone foam beads and an expanded polymer moisture barrier
- a breathable fire resistant viscose fibre liner.

The shell and barriers resist degradation from UV light and a wide range of hazardous substances encountered during firefighting. The foam beads create an insulating air space between the shell and thermal barrier. The moisture barrier resists steam and liquid penetration.

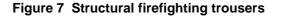
Insignia patches have been omitted and additional felt padding has been provided around the shoulders, elbows and knees to minimise the risk of compressive heat transfer.

The coat has a long zip to ensure complete closure from the waist to the neck. The arms have inner cuffs and thumb loops to maintain the interface with firefighting gloves. This prevents debris from entering and the skin being exposed.



#### Figure 6 Structural firefighting coat

The trousers have elastic braces to hold the trouser waist above the hips so that protection is maintained if the coat rises up. The knees are reinforced with a paraaramid fabric which resists water, chemicals, heat, puncture and abrasion. Soft and flexible knee pads are fitted between the shell and liner to cushion and insulate the wearer when kneeling and crawling. A press stud on the trouser cuffs allows the trouser cuffs to be tightened around the firefighting boot when there is a risk of heat convection up the legs.

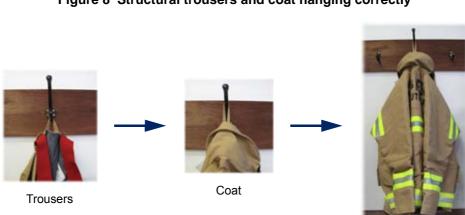




Both items have inspection ports between the shell and the liner. This allows the barrier on the liner's internal face to be inspected for damage and degradation.

At the station:

- Don't wear or place the structural fire coat and trousers in clean areas of the station.
- Don't wear structural fire coat and trousers when performing station duties, particularly during tasks that present a risk of damaging the clothing or soiling it with flammable or corrosive liquids.
- For stations with cages: hang your PPC on the hangers provided inside the cage.
- For stations with station pegs: hang the structural trousers from the hanging loop at the rear of the trousers between the braces. This minimises stretching and damaging the elastic braces.



#### Figure 8 Structural trousers and coat hanging correctly

#### Checking the fit of structural fire coat and trousers for the first time

The structural firefighting coat and trousers are designed to be loose fitting to maximise the air barrier between the body and the inner garment surface. This in turn maximises radiant heat insulation.

The fit must not:

- be restrictive against the body
- unduly constrain any body movement
- be tight under the arms or around the crotch area
- be so loose that they hinder movement or hang away from the body.

You need to test the fit and check PPC interface points with a range of physical activities including walking, stretching, bending, climbing stairs and crawling. Choose sizes that fit properly and provide sufficient overlap both between the coat and trousers, and between both items and all other PPE.

To check the fit of structural trousers when worn with duty wear trousers and belt, and firefighting boots:

- The top edge of the waist of the structural trousers should sit at the same height as the top edge of your duty wear belt. If needed, adjust the braces to meet this height.
- Structural trousers should be loose fitting with the inner circumference at least 10 cm larger than your duty wear clothing around both the hips and the waist (including the belt).



Figure 9 Check length

Check here

After adjusting the waist to the correct height, the bottom of the leg of the structural trousers

should sit at the top of the sole of the fire fighting boot. Tolerance: The bottom of the structural trousers cannot be longer, but can be up to 4 cm shorter. (See Figure 9.)

- From a standing position, lunge forward until one knee touches the floor. Check that:
  - The bottom of the trouser leg overlaps the boot collar with no exposure of the leg. (See Figure 10.)
  - That this movement doesn't restrict the wearer in the crotch area.
- From a standing position, squat with both knees fully bent. Check the trouser knee pad is correctly located over your knee cap. (See Figure 10.)



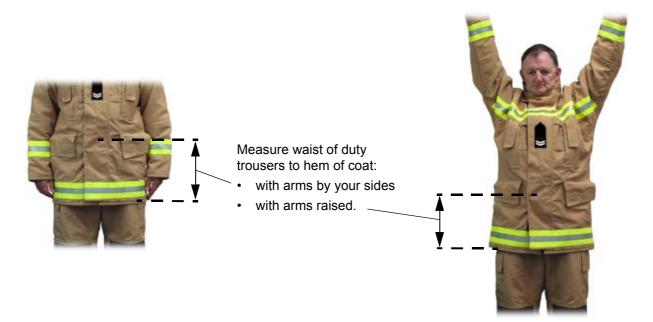
#### Figure 10 Check trouser length while lunging and check knee pads

Check trouser length while lunging

Check knee pads

To check the fit of structural coat when worn with the zip and storm flap closed, and with the structural trousers, duty wear trousers and belt, firefighting boots and gloves:

- The coat should be loose fitting for the full length of the torso, with the inner coat lining having approximately 25 cm greater circumference than the body.
- When standing upright with arms by sides:
  - The bottom edge of the coat should overlap the top edge of the trousers by 28 cm. Tolerance: +/- 3 cm. (See Figure 11.)

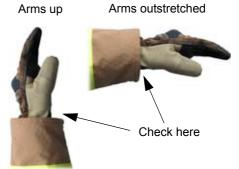


#### Figure 11 Check waist overlap

- The end of the sleeve should be approximately 2 cm below the bottom of the wrist bone.
- While standing upright, reach your arms vertically to the maximum extension. Check that:
  - The bottom edge of the coat overlaps the top edge of the structural trousers by a minimum of 12 cm. (See Figure 11.)

- The coat sleeves cover the knitted wristlet of your gloves. (See Figure 12.)
- From a standing position, bend forward and touch your toes (if possible). Check:
  - The bottom edge of the coat still overlaps the top edge of the structural trousers by a minimum of 12 cm.
  - The coat sleeve covers the knitted wristlet of your gloves. (See Figure 12.)
  - The coat does not restrict movement across your back.

#### Figure 12 Check glove overlap



#### Donning and doffing

Before each use, check each item is intact, undamaged and sized, fitted and adjusted properly. Ensure all zip and hook and loop fasteners are aligned and fully engaged. The structural firefighting coat must be worn with the zip and zip cover fully closed.

When wearing protective clothing, do not allow any gaps in coverage.

To don the structural firefighting trousers:

- a) Remove your boots.
- b) Open the fly of the trousers and pull the trousers on. Fasten the fly.

#### 

Never don structural firefighting trousers while wearing firefighting boots or footwear of any other description. This may deteriorate the moisture membrane and render the trousers unserviceable.

c) Pull the braces over your shoulders and adjust for comfortable height. Don't cross the braces.

#### **WARNING**

If you cross the braces, the trousers can bunch at the waist. This compromises protection.

- d) Put your firefighting boots back on.
- e) If required, fasten the press stud on the trouser leg cuffs to reduce convective heat.

To don the structural firefighting coat:

- a) Don the protective hood.
- b) Slip the coat over the body with arms through the sleeves and into the thumb loops.
- c) Fasten the front opening zip while holding the zip straight. Ensure the zip is correctly engaged.
- d) Position the front storm flap to ensure correct alignment and no gaps.
- e) Fully extend the collar up and secure the storm flap to ensure there are no gaps.
- f) Check fit.
- g) Have a workmate check that the rear of the coat is not bunched up under your SCBA harness straps.

#### 🕱 WARNING

Bunching of the coat under SCBA straps could expose the lower body area or reduce the protective overlap.

To doff the structural firefighting coat and trousers:

a) Open the coat to ventilate as soon as possible to help you cool down.

🕱 WARNING

Never remove garments unless safely away from the hazard area.

Avoid unprotected body contact with any contaminated areas of the garments.

Avoid contact between contaminated protective garments and personal belongings and other areas and equipment.

- b) Remove other PPE (helmet, SCBA, gloves) before removing the structural firefighting coat and trousers. If required to avoid contaminating your hands, use the thumb loops to help you take off the coat.
- c) To prevent cross contamination of clothing, remove the coat and boots before removing trousers.

#### Managing heat stress

After firefighting and when safely away from any hazards, remove the coat and unfasten the trouser cuff press studs to allow cooling. Be aware the press studs are metal and may be hot.

Open the coat to ventilate as soon as possible to help you cool down.

### 3.3.7 Multi-purpose coat

The multi-purpose coat provides thermal and mechanical protection. It complies with AS/NZS 4824:2006 for wildland firefighting clothing and AS 1906.4:2010 for high-visibility materials for safety garments used for road traffic control.

The multi-purpose coat provides protection from radiant heat during bushfire fighting or hazard reduction burning. It is not



intended to protect against direct flame contact. At other non-fire incidents, the multi-purpose coat is more visible than level 4 PPE alone (duty wear) and enhances protection from physical hazards. (Levels of PPE are defined in <u>Section</u> 6: 'Wearing PPE' on page 43.)

The multi-purpose coat is light, flexible and loose fitting to allow airflow to remove metabolic heat and manage heat stress. There are adjustable hook and loop throat

and wrist fasteners. The wrist fasteners may be tightened when additional protection is required. However, doing so inhibits the release of metabolic heat and increases the risk of heat illness.

During firefighting the multi-purpose coat must be worn fully buttoned with collar raised and storm flap closed. The multi-purpose coat is worn with a minimum of T-shirt and duty wear trousers. It may also be worn with structural firefighting trousers when additional thermal protection is required.

## **WARNING**

Wearing the multi-purpose coat with structural firefighting trousers increases the risk of heat stress, particularly during operations in high ambient temperatures.

At the station:

- Don't wear or place the multi-purpose coat in clean areas of the station.
- Don't wear the multi-purpose coat when performing station duties, particularly during tasks that present a risk of damaging the coat or soiling it with flammable or corrosive liquids.

### 3.3.8 High-visibility vest

High-visibility vests must be worn when working on or near roads, or at operations where visibility is a safety issue, where a higher level of PPC isn't required.

High visibility vests comply with AS/NZS 1906.4:2010 for high-visibility materials for safety garments used for road traffic control. (Levels of PPE are defined in <u>Section 6: 'Wearing PPE' on page 43.</u>)

#### Figure 14 High-visibility vest



#### 3.3.9 ICS tabards

Tabards identify the incident controller, members of the incident management team and other specialists. They are worn at complicated incidents where the Incident Control System (ICS) is established to rapidly identify a person's role.

Tabards comply with AS/NZS 1906.4:2010 for high-visibility materials for safety garments used for road traffic control. Figure 15 ICS tabard



# 3.4 Firefighting boots

Firefighting boots provide a high level of protection from firefighting exposures and comply with AS/NZS 4821:2006 – *Protective footwear for firefighters*.

Firefighting boots help protect the wearer from fire, radiant and contact heat, puncture, impact and slips. Boots are designed to support the ankle, and have a rigid toe cap and semi-rigid puncture resistant sole. They also have limited chemical, corrosive and electrical resistance.

Firefighting boots must be worn:

 For all operational duties except where a higher level of protection is required (eg, hazardous materials incidents)





 Where the level of protection required for non-operational duties is greater than that provided by ankle boots (eg, general station work).

Soiled firefighting boots must not be worn in clean areas of stations. Soiled or contaminated boots must be cleaned immediately.

Only boots complying with AS/NZS 4821:2006 provide an acceptable level of protection during firefighting. Firefighting boots worn by firefighters must comply with this standard and be approved by FRNSW. Compliant boots are marked 'AS/NZS 4821:2006' and identified by a horizontal reflective stripe.

# 3.5 Helmets



#### WARNING

Do not permit children to wear the structural firefighting or multipurpose helmets. Firefighters' helmets are designed for adults and are too heavy for children. Children have suffered neck injuries from wearing structural firefighting helmets.

## 3.5.1 Structural firefighting helmet

The structural firefighting helmet complies with AS/NZ 4067:2004 *Firefighter's helmets*, and provides optimal head protection.

The structural firefighting helmet has a polyurethane impact liner for added mechanical and thermal protection. It has a protective flap to minimise air circulation, shield the ears and neck from radiant heat, and Figure 17 Structural firefighting helmet



prevent debris falling inside the structural coat. It also has a visor to protect the eyes and face.

The structural firefighting helmet must be worn at all structural firefighting operations, when in buildings that have been damaged by fire, and when deemed necessary by the Incident Controller.

The helmet fits all head sizes. Adjust the size to fit your head by rotating the ratchet control knob on the headband to provide a comfortable, but firm fit. Check the chinstrap buckle fastens securely.

When required to wear the helmet:

- deploy and correctly adjust the ear and neck protective flap over the raised collar of your structure fire or multi-purpose coat
- lower your visor
- correctly adjusted and fasten your chinstrap.

#### 3.5.2 Multi-purpose helmet

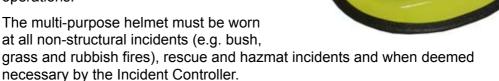
The multi-purpose helmet complies with AS/NZS 1801:1997, Occupational protective helmets as a Type 3 helmet.

It is suitable for prolonged wear outdoors. The helmet allows air circulation to improve cooling. The three point chinstrap reduces the risk of the helmet being dislodged even when the wearer is upside down. The helmet is fitted with earmuff clips so that various types of earmuffs can be worn for specialised operations.

The multi-purpose helmet must be worn at all non-structural incidents (e.g. bush,



Figure 18 Multi-purpose helmet



The multi-purpose helmet must be carried in the issued kit bag on appliances when on duty. The multi-purpose helmet must not be worn during structural firefighting operations, or in any building that has been damaged by fire.

The helmet fits all head sizes. Adjust the size to fit your head by rotating the ratchet control knob on the headband to provide a comfortable, but firm fit. Check the chinstrap buckle fastens securely. The nape strap connectors should rest under the ears when the neck strap is pulled tight. When configured correctly, the chinstrap buckle will be located on the left hand side.

Always wear the multi-purpose helmet with the chinstrap correctly adjusted and fastened

# 3.6 Gloves

## 3.6.1 Firefighting gloves

Firefighting gloves provide protection from firefighting exposures and comply with AS 2161.6:2003, Occupational protective gloves – Protective gloves for firefighters – Laboratory test methods and performance requirements.

Firefighting gloves protect the wearer from fire, heat, abrasion, cutting and limited chemical and biological exposure. The cuff is designed to protect the wrist, prevent the entry of debris, and interface with



the structural firefighting coat. The glove has a moisture barrier to resist steam and liquid penetration, a leather shell to resist puncture, and patches on the fingers to improve grip.

Firefighting gloves must be worn when engaged in firefighting operations, unless there is an electrical or chemical hazard which requires another type of glove.

#### **WARNING**

Firefighting gloves are not designed to protect against electrical or chemical hazards.

## 3.6.2 General purpose gloves

General purpose (GP) gloves provide protection from physical and mechanical hazards. GP gloves comply with AS/NZS 2161.3:2005, *Occupational protective gloves – Protection against mechanical risks* for occupational protective gloves.

GP gloves help protect the wearer from common hand injuries such as abrasions and cuts. They have a leather shell to resist punctures and a Kevlar liner to resist cuts.

GP gloves must be worn whenever your hands need protection from physical hazards, a higher level of



protection isn't required, and riggers gloves aren't suitable. GP gloves may be worn for bushfire fighting and hazard reduction operations.

Figure 20 General purpose gloves

Disposable gloves must be worn under GP gloves during rescue operations or other incidents where casualties may be involved. If it is necessary to remove GP gloves when operating equipment or handling casualties, the disposable glove must be kept in place. Once the task is complete, GP gloves must be donned again.

Do not use GP gloves for structural firefighting.

### 3.6.3 Disposable gloves

Disposable gloves protect against contamination by blood, body fluids and other biological hazards.

Each firefighter must carry one pair of disposable gloves. These may be carried on the person or in the CPR Personal Pack. At least two new pairs per firefighter must be carried on each appliance. EMT packs include a box of disposable gloves.

In accordance with infection control guidelines, all firefighters must wear disposable gloves under GP gloves when responding to rescue incidents, motor vehicle accidents and medical assistance incidents. The GP glove may be

Figure 21 Disposable gloves



removed to handle people or bodies provided there are no sharp objects in the vicinity which could pierce the disposable glove.

If disposable gloves are damaged, they must be removed, the hands washed with soap and water or disinfected without delay and a new pair donned.

Where more than one casualty is handled at an incident, disposable gloves must be removed and a new pair donned before handling the next casualty. Disposable gloves are a single-use item. After handling a casualty, they are a biological hazard and must be disposed of accordingly.

Always follow infection control guidelines.

### 3.6.4 Electrical gloves

Electrical insulation gloves (electrical gloves) are worn with electrical leather overgloves (over-gloves) to protect against typical domestic electrical hazards. They are designed to insulate against electrical current and voltage found in low voltage circuits up to 650 V. Typical domestic electrical hazards range from 240 V to 415 V.

Gloves are manually marked with an expiry date of 12 months from the date the package is opened.



Figure 22 Electrical gloves (left) and over-gloves (right)

Electrical gloves must be worn whenever a firefighter may come in contact with electrical apparatus or circuits.

To wear electrical gloves:

- Put on electrical gloves first.
- Put over-gloves on over the electrical gloves to protect the electrical glove from damage.
- The cuff of the electrical glove must extend beyond the cuff of the over-glove.
- The cuff of the electrical glove must be above the cuffs and sleeves of your PPC.

Refer to the <u>Guideline Support Document for Electricity SOGs 14.2 – 14.7</u> for further information on dealing with electrical hazards.

### 3.6.5 Riggers gloves

Riggers gloves provide limited protection from cuts and abrasions and are provided only for cordage operations.



# 3.7 Eye protection

## 3.7.1 BA facemask

The full facemask, including facemasks on air trolley BA and extension facemasks, offers adequate eye protection for structural firefighting, hazardous materials operations and enhanced protection during bushfire fighting operations.

For more information on BA facemasks and wearing breathing apparatus, see <u>Section 3.9: 'Respiratory protection' on</u> <u>page 25</u>.

## 3.7.2 Safety goggles

Bushfire safety goggles are designed to be worn when working in smoke or other areas where eye injury or irritation is possible. They are used for bushfire operations and as safety goggles when operating cutting tools, heavy rescue machinery, or treating casualties who are bleeding.

Safety goggles are rated for medium impact protection under AS/NZS 1337.1:2010, *Personal eye protection -Eye and face protectors for occupational applications*.

Two styles of safety goggles are on issue:

- The Ultrasonic goggle has a replaceable lens and low profile design. They are not suitable for people with thin or small shaped heads and cannot be worn over prescription spectacles.
- The Firefighter goggle has a nonreplaceable lens and a flexible frame. It can be worn by anybody and is compatible with prescription spectacles.

Figure 24 BA facemask



Figure 25 Safety goggles



Ultrasonic



Firefighter

If exposed to any hazardous substance, the foam face seal on the Firefighter goggle can't be adequately decontaminated. It must be replaced immediately and disposed of.

## 3.7.3 Safety glasses

FRNSW safety glasses provide 100% ultra violet (UV) protection and are certified as providing medium impact protection under AS/NZS 1337.1:2010, *Personal eye protection - Eye and face protectors for occupational applications*.

Safety glasses are provided for non-firefighting or non-hazardous materials tasks such as rescue operations and emergency medical incidents.

They are available in a tinted version for high glare daytime use, and an semi-tinted version for nighttime and low light scenarios.

#### Figure 26 Safety glasses



### 3.7.4 Helmet face shields

Helmet face shields are designed to protect the face and supplement other eye protection equipment.

During firefighting operations firefighters must wear the face shield down unless wearing SCBA, when the face shield must be worn up.

Face shields alone do not provide adequate eye protection and must be used in conjunction with bushfire/safety goggle or safety glasses for enhanced protection if there is an eye safety hazard, such as a bleeding patient.

Helmet face shields are used when operating cutting tools or heavy rescue machinery.

# 3.8 Hearing protection

Hearing protection is designed to protect your hearing from excessive noise levels, for example the noise made by heavy machinery and power tools. FRNSW provides two types of hearing protection:

- Banded ear plugs: Operators of rescue equipment are issued with banded ear plugs which reduce noise levels by 18 – 22 dB. These must be worn when operating or working near rescue equipment.
   To maintain hygiene, do not exchange ear plugs with other operators.
- Ear muffs: Appliances which carry portable air and power tools carry ear muffs. Ear muffs reduce noise levels by 24 – 28 dB, depending on the class. Ear muffs must be worn when operating or working near equipment such as chainsaws or power saws.
   Disposable hygienic cushion covers are available for ear muffs.

Hearing protection must also be provided, where necessary and where possible, to rescue patients.

Figure 27 Hearing protection



Banded ear plugs - worn in the ear cavity



Ear muffs -

# 3.9 Respiratory protection

For procedures on the use of respiratory protection at incidents, refer to SOG 9, *Respiratory protection.* 

## 3.9.1 Breathing apparatus

FRNSW uses open circuit, air-supplied, positive pressure, first breath activated, lung demand governed, breathing apparatus. This breathing apparatus can be arranged in a number of configurations:

- Self-contained breathing apparatus (SCBA).
- Extended duration SCBA.
- Extension facemask with an airline supplied from a source of compressed air. These sources include :
  - auxiliary connection of SCBA of another operator (eg, buddy breathing)
  - extension airline to an independent airset (eg, for decontamination team, or entry into restricted space)
  - extension airline to an independent BA cylinder mounted on an appliance (eg, aerial appliances)
  - independent set of cylinders mounted on a trolley (air trolley BA).

All these forms of breathing apparatus provide the same level of protection.

SCBA sets include a torch, and a distress signal unit which sounds either when activated by the wearer, or if the wearer has been immobile for longer than 20 seconds. For more information on how to use and maintain distress signal units, refer to Recommended practice, *Distress signal unit: MotionScout K-R*.

#### Figure 28 Drager SCBA and BA cylinder



Use breathing apparatus:

- to protect against atmospheres with:
  - elevated temperatures
  - depleted oxygen
  - toxic or unknown contaminants
  - heavy smoke.
- when determined by risk assessment.

Before removing BA or downgrading to a lesser form of respiratory protection, the safety of the atmosphere must be determined either by:

- risk assessment
- atmospheric monitoring.

For more information, refer to:

- SOG 9, Respiratory protection
- Recommended practice, Self-contained breathing apparatus (forthcoming)
- Recommended practice, <u>Air trolley breathing apparatus</u>.

Inspect and check the function of breathing apparatus according to:

- SIMS worksheet, SCBA sets
- SIMS worksheet, <u>BA extension mask sets for SCBA</u>
- SIMS worksheet, <u>Air trolley BA.</u>

#### 3.9.2 P2 particle mask

The P2 particle mask is a disposable half facepiece respirator which complies with AS/NZS 1716:2012, *Respiratory protective devices* as a Class P2 particulate filter respirator.

The respirator will not filter out smoke, but can assist in filtering large particulate matter. The exhalation valve makes breathing easier and reduces the build up of hot air and moisture within the mask.



## **WARNING**

If there is any doubt regarding oxygen level or airborne contaminants, wear SCBA.

Use P2 particle masks to protect against:

- Known low concentrations of inert dust, such as those produced when cutting metal or wood.
- Concrete, stone and masonry cutting operations provided the work piece can be kept wet.
- The particles (but not the gases, eg CO) in bushfire smoke.
- Contamination by body fluids.

Do not use P2 particle masks to protect against:

- gases
- mists
- elevated temperatures
- vapours
- atmospheres with less than 19.5% oxygen.

Low oxygen levels can indicate the presence of other contaminants. Always investigate low oxygen levels.

Do not use when the concentrations of contaminants are unknown or are immediately dangerous to life or health (IDLH).

Do not use when appropriate National Exposure Standards (eg, TWA and STEL) for contaminants are unknown. Please refer to the Safe Work Australia <u>Hazardous</u> <u>Substance Information System</u> or consult specialist advice.

Replace P2 masks during operations when:

- they are discoloured or visibly contaminated
- breathing becomes difficult.

If you can smell a contaminant through the mask, consider BA.

Dispose of P2 masks after use.

### Fitting

P2 particle masks must be fitted correctly to be effective.

To fit the P2 mask:

- a) Hold the mask in your hand, allowing the headbands to hang freely below your hand.
- b) Position the respirator comfortably under your chin and against the bridge of your nose.
- c) Pull the top headband over your head, placing it at the crown of your head. Pull the bottom headband over your head and place it below your ears.
- d) Using both hands, mould the metal nosepiece to the shape of your nose and cheek area. Using one hand to pinch the nosepiece may cause a bad fit, resulting in lower effective respirator performance.
- e) Place both hands completely over the respirator and inhale sharply to check the fit. Be careful not to disturb the position of the respirator. A negative pressure (mask wanting to collapse) should be felt. If not, or if leaks occur around the edges of the respirator, reposition the respirator and headbands for a better fit.

Particle respirators are available in 3 sizes, small, medium and large.

NOTE

Unless recertified, the particle mask has a shelf life of 5 years from the date of manufacture providing the original packaging remains intact.

### 3.9.3 Full facemask air-purifying respirators SE400 and S10

Specialist units are equipped with the SE400 powered air-purifying respirator and S10 unpowered air-purifying respirator for specialist tasks. For more information, refer to:

- Recommended practice, <u>SE400 positive pressure respirator</u>.
- Recommended practice, <u>S10 respirator</u>.

In addition, Equipment Logistics Chullora has a supply of SE40 powered airpurifying respirators for use by specialist units.

Before any of these respirators can be used:

- concentrations of contaminants must be known
- concentrations must be less than the IDLH limit
- the filter fitted to the respirator must protect against all contaminants
- atmospheric oxygen must be greater than 19.5%
- ambient temperature must not be dangerously elevated.

## 3.10 Chemical protection

Always have another member check your chemical protection PPE before entering the Hot Zone.

Λ ΝΟΤΕ

Where PPE is contaminated, firefighters must initially follow SOG 10.4, *Decontamination*.

### 3.10.1 Chemical gloves

Chemical gloves protect against most liquid and solid chemical and biological hazards.

Chemical gloves are worn at hazmat incidents and at the discretion of the officer in charge.

Figure 30 Chemical gloves



Figure 31 Chemical boots

### 3.10.2 Chemical boots

Chemical boots protect against most liquid and solid chemical and biological hazards.

Chemical boots are worn at hazmat incidents and at the discretion of the officer in charge.

### 3.10.3 Splash suits

The splash suit provides protection from dust and liquid splash hazards.

A range of splash suits are in use in FRNSW. These include:

 Tyvek<sup>®</sup> limited-use (white coveralls) to protect against chemically inert dust particles and fibres larger than 2µm.



 Tychem<sup>®</sup> C limited-use to protect against ultra-fine dusts and powders, and random splash by many inorganic acids, alkalis, and water-based salt solutions.

- Tychem<sup>®</sup> F limited-use to protect against ultra-fine dusts and powders, and random splash by a wide range of organic and inorganic acids, alkalis and compounds.
- Charcoal suits to protect against contaminants as determined by risk assessment and scientific advice. The charcoal suit is used exclusively with the S10 respirator.
- Reusable splash suits to protect against ultra-fine dusts and powders, and random splash by a wide range of organic and inorganic acids, alkalis and compounds.

For information on Tyvek, Tychem C and Tychem F limited-use splash suits, refer to Recommended practice, *Limited-use splash suits*.

For information on charcoal suits, refer to Recommended practice, Charcoal suit.

NOTE The colour and style of all splash suits may vary according to supply contracts.

Depending on the level of protection required, splash suits may be worn with:

- breathing apparatus of any configurationfull facemask air-purifying respirators
- P2 particle mask.

When used, SCBA must be worn over the splash suit. Extension facemasks with airline must be worn with the airline waist belt adapter.

Breathing apparatus must be worn where the concentration of hazardous contaminants is above levels considered safe or when the concentration is unknown. Where hazardous vapours and gases are present or there is any danger of gross liquid contamination, wear a fully encapsulated suit.

## WARNING

Splash suits are not fire retardant. Do not wear splash suits in a flammable atmosphere or when firefighting.

If ICs have any doubt as to the suitability of a splash suit, they should contact Hazmat Capability for advice.

Wearing splash suits:

- a) Wrists: wear both the elasticised cuff and the external cuff over the gloves.
- b) Legs: wear the elasticised cuff inside the boot, and the external cuff outside the boot.
- c) If wearing BA or a full facemask respirator, pull the suit hood over the head to cover the facemask harness and:
  - If fitted with an elasticised cuff, adjust the cuff to close snugly around the facemask seal.
  - If fitted with a cord and hook and loop fastener: adjust to close snugly around the facemask seal, tighten the hood cord and tie with a double bow knot, then align the hook and loop fastener under your chin and secure firmly.

Hazmat stations are supplied with a chemical resistant tape to tape the cuffs of the suit to gloves and boots for greater protection. All other operators should don an FE suit if greater protection is required.

### 😻 WARNING

All varieties of splash suit inhibit the release of metabolic heat. Always monitor wearers for heat stress and rotate and rehabilitate crews.



## 3.10.4 Fully encapsulated suit

Fully encapsulated (FE) suits provide high level protection from solid, liquid and gas contact hazards.

## ▲ NOTE

## Colour and style may vary according to FRNSW supply contracts.

The FE suit has a double layered plastic visor and integral, chemically resistant, heavy duty gloves and safety boots. The sleeves are designed so the wearer can remove their arms while wearing the suit. Exhalation valves on the rear of the suit automatically release any excess pressure inside the suit.

SCBA is worn underneath the FE suit, so that the suit fully encapsulates the wearer and the SCBA. The SCBA auxiliary connection must be connected to the adapter inside the suit. This allows an external airline to be attached.

FE suits are not fire retardant and are unsuitable for protection in a flammable atmosphere or for firefighting.



Figure 33 FE suit

### **WARNING**

All varieties of FE suit inhibit the release of metabolic heat. Monitor wearers for heat stress and rotate and rehabilitate crews.

## 3.11 CPR personal pack

Cardiopulmonary resuscitation (CPR) personal packs are available from ESCAT and are worn on the belt. They contain one pair of disposable gloves and a disposable CPR face shield.

The CPR personal pack contains:

- One pair of disposable nitrile gloves. Refer to Section 3.6.3: 'Disposable gloves' on page 21.
- A disposable resuscitation shield.

Figure 34 CPR personal pack



Disposable resuscitation shields protect against blood and other body fluids that rescuers may be exposed to when performing mouth-to-mouth resuscitation.

Disposable resuscitation shields are for emergency use only when an EMT Pack is not available or if multiple patients require CPR. They are not intended to replace the EMT Pack resuscitation masks.

Discard the resuscitation shields if the packaging is damaged. They are a single-use item. After use, they are considered a biological hazard and must be disposed of accordingly.

### Figure 35 Resuscitation shield



## 3.12 Other duty wear and PPE items

## 3.12.1 Winter jacket

The winter jacket provides basic protection against cold weather and wind.

Figure 36 Winter jacket



### 3.12.2 Baseball cap

The baseball cap provides basic protection from sun and glare. It may be worn whenever firefighters are outside and not at risk from hazards requiring additional protection.





### 3.12.3 Beanie

The beanie provides thermal protection in cold climates. It may be worn in place of the baseball cap whenever firefighters are exposed to cold conditions and not at risk from hazards requiring additional protection.

### 3.12.4 Sun hat

The sun hat provides greater protection from sun and glare than the baseball cap or beanie. It may be worn instead of the baseball cap whenever firefighters are exposed to the sun for extended periods and not at risk from hazards requiring additional protection. Figure 38 Beanie



Figure 39 Sun hat



### 3.12.5 High-visibility raincoat

High-visibility raincoats protect against inclement weather only (eg rain and wind) at incidents, training, exercises, and situations where high visibility is needed and no higher level of PPE is required.

High-visibility raincoats comply with AS/NZS 1906.4:2010 for high-visibility materials for safety garments used for road traffic control.

Rain coats must not be worn in the Hot Zone of fires or as a substitute for chemical protective clothing.

### 3.12.6 Raincoat

3.12.7

Raincoats protect against inclement weather only (eg rain and wind).

The raincoat:

Ankle boots

duties.

- should not be worn at incidents
- may be worn with uniforms as required.

### Figure 40 High visibility raincoat







Figure 42 Ankle boots



Figure 43 PPE kit bag



### 3.12.8 PPE kit bag

The PPE kit bag is designed to carry and protect PPE that is not being used. The PPE kit bag must be used to transport extra PPE on FRNSW appliances. This includes:

Ankle boots provide a minimum of ankle and foot protection and may be worn for general station

- multi-purpose coat
- multi-purpose helmet
- baseball cap
- beanie
- goggles
- safety glasses.

When not in use, the PPE kit bag must be stored on the station pegs or racks.

# Section 4: Inspection and maintenance of clothing and PPE

## 4.1 Scope

This section details the inspection and maintenance requirements of items of clothing and PPE listed in <u>Section 3</u>.

## 4.2 Personal protective clothing

## 4.2.1 Inspection

The inspection schedule for personal protective clothing is part of Station Inventory Management System (SIMS). Inspection instructions are documented on SIMS worksheet, <u>Personal protective equipment: Firefighting and duty wear</u>.

Excluding normal soiling, any defects must be immediately reported to and inspected by the Station Commander. Examples of some of the defects described on the worksheet are in <u>Section 4.2.5: 'Defect examples' on page 34</u>.

### 4.2.2 Laundering

A laundry service is provided for all items of PPC. The contracted laundry provider must be used.

Do not clean your PPC at home or through any other service. Do not clean, dry clean, tumble dry, iron, or bleach any item of PPC yourself.

#### 

If these instructions are not followed, you may reduce the performance, longevity, or cleanliness of your PPC.

### **WARNING**

If you clean your PPC at home, you risk exposing yourself and your family to contaminants on the PPC.

The structural firefighting coat and trousers contain radio frequency identification (RFID) devices so that the items can be tracked through the laundering service. No other identification for the purpose of laundering is required. Do not under any circumstances attach pins or staples to the structural firefighting coat or trousers as this will damage the moisture barrier.

For more information on items that can be laundered and laundering procedures, refer to <u>In Orders 2009/13, 'Laundering uniform'</u>.

### 4.2.3 Contaminated items

When PPC becomes contaminated, follow the instructions in SOG 10.4, *Decontamination*.

FRNSW laundry providers are able to clean and decontaminate PPC contaminated with blood, body fluids, petrochemicals and asbestos.

When contaminated PPC needs laundering:

- a) Place the item in a contaminated clothing bag. Place items contaminated with asbestos in a yellow asbestos containment bag.
- b) Seal the bag.
- c) Tag the bag with a label clearly showing the type of contamination.

If bags are returned to the station, stow in the rear of the appliance, not in the cabin.

Station Commanders are to contact the laundry provider to advise the nature of the contaminant and where to collect the contaminated items.

### 4.2.4 Repair

Refer to <u>In Orders 2008/26, 'Total apparel management - supply of PPE, general</u> <u>uniform and accoutrements'</u>, section 4.4: Uniform repair service.

Garments must be laundered before sending for repair.

### 4.2.5 Defect examples

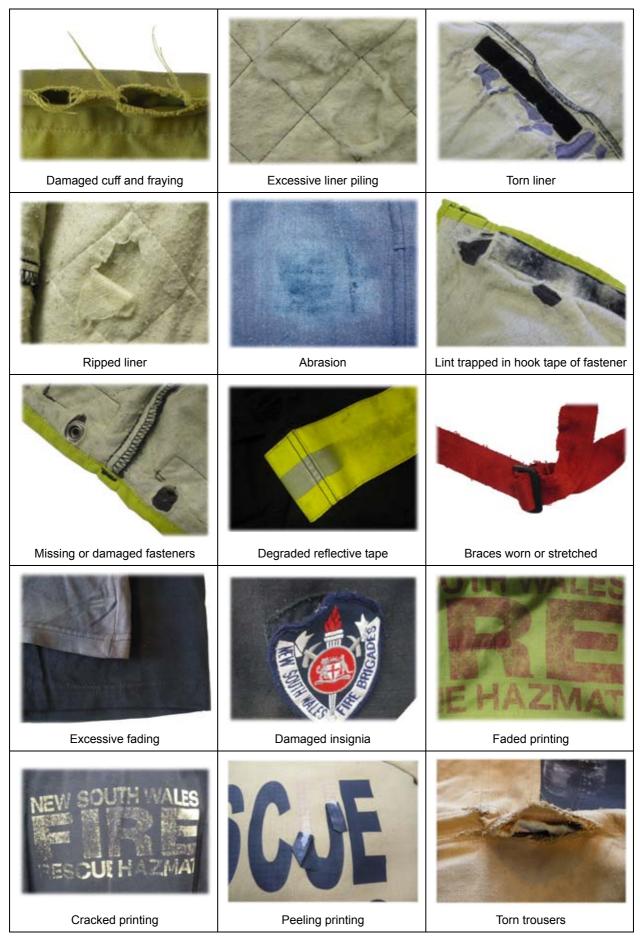
The following examples illustrate PPC which should be withdrawn from service and either sent for repair or replaced.

Some of these images are of older style PPC. Take note of the problem and apply the same standard to new PPC.



### Table 2 Examples of defects in PPC

### Table 2 Examples of defects in PPC



## 4.3 Firefighting boots

### 4.3.1 Inspection and maintenance

Inspect firefighting boots after use and according to SIMS worksheet, <u>Personal</u> protective equipment: Firefighting and duty wear.

Excluding normal soiling, any defects must be immediately reported to and inspected by the Station Commander.

To clean footwear:

- a) Clean the outer surface of the boots by sponging with clean water only.
- b) Apply a leather protectant with a lint free cloth, working well into the edges and stitching.
- c) Buff to a presentable standard.

### 4.3.2 Defect examples



### Table 3 Examples of defects in firefighting boots

## 4.4 Helmets

## 4.4.1 Inspection and maintenance

Inspect helmets after use and according to SIMS worksheet, <u>Personal protective</u> equipment: Firefighting and duty wear.

On Cairns structural fire helmets, check the screws holding the chin strap are tight.

To clean helmets:

- a) Remove the neck protector, headband, ratchet covers and chin straps.
- b) Clean the shell with mild detergent, using a soft bristle brush if necessary.
- c) Clean the visor with a sponge or soft cloth.
- d) Wash the neck protector, headband, ratchet covers and chin straps with warm, soapy water. Rinse well and allow to dry naturally.
- e) Reassemble.

#### 

Do not use solvents, paint thinners, abrasive detergents, chlorine bleach or cleaning agents that contain chlorine bleach as these will damage or mark the surface of the helmet.

Refer to ESCAT for replacement parts.

If a helmet has sustained damage, it must be inspected by the Station Commander, who will determine if it is serviceable or should be condemned. All condemned helmets must be tagged to ensure they do not re-enter service and then returned to Equipment Research & Design with a memo from the Station Commander certifying the helmet is unserviceable.

## 4.4.2 Defect examples

### Table 4 Examples of defects in helmets



## 4.5 Gloves

## 4.5.1 Inspection and cleaning

Inspect gloves after use and regularly according to:

- SIMS worksheet, <u>Personal protective equipment: Firefighting & duty wear</u>
- SIMS worksheet, *Electrical safety kit*.

If gloves are contaminated with blood or other body fluids from handling casualties at an incident, they must be disposed of and replaced.

### **Cleaning structural firefighting gloves**

Washing instructions are supplied with each pair of structural firefighting gloves. When soiled, firefighting gloves must be laundered.

Do not dry clean, tumble dry, iron or bleach structural firefighting gloves.

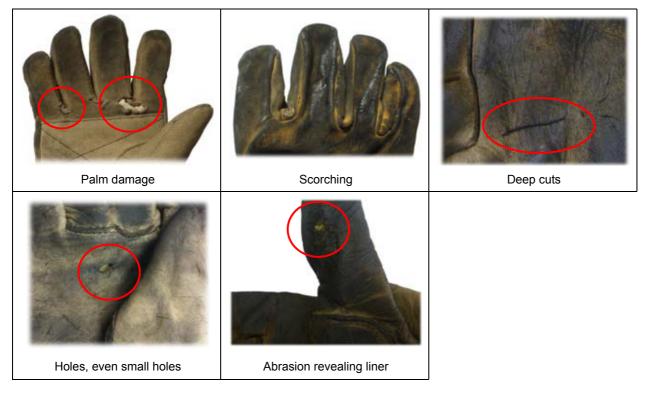
### Cleaning GP gloves and riggers gloves

To clean excessively soiled GP or riggers gloves:

- a) Remove any dried dirt or dust from the gloves using a stiff bristled brush.
- b) Clean the gloves with a cloth dampened with a solution of water and liquid detergent.
- c) Wipe the gloves dry with a clean, dry cloth.
- d) Do not soak the gloves in water.
- e) Allow gloves to dry naturally out of the direct sunlight.

## 4.5.2 Glove defect examples

### Table 5 Examples of defects in gloves



## 4.6 Eye protection

For inspection and maintenance of the BA facemask, refer to SIMS worksheet, <u>SCBA sets</u> and Recommended practice, *Breathing apparatus* (forthcoming).

For inspection and maintenance of helmet face shields, refer to SIMS worksheet, *Personal protective equipment: Firefighting & duty wear*.

Inspect safety goggles and glasses according to SIMS worksheet, <u>PPE set:</u> <u>Personal protective equipment</u>.

To clean the lens of safety goggles and glasses:

- a) Rinse dirty lenses under clean running water
- b) Dry lenses with lint free paper or a soft cloth.

To avoid scratching the lens, never clean dirty lenses when dry.

If required, disinfect Ultrasonic goggles and safety glasses with BA disinfectant. Leave for ten minutes and rinse off.

To replace the lens of the Ultrasonic goggle:

- a) Open the clip on the left side of the goggle lens, and disengage the lens. Repeat for the right side.
- b) Unhook the lens from the goggle at the forehead.
- c) Unhook the lens from the goggle at the nose. The lens should be free.
- d) Position the replacement lens over the goggle.
- e) Snap the lens into the right clip. Repeat for the left clip.
- f) Snap in the lens at the forehead of the goggle. Repeat at the nose of the goggle.

### 4.7 Hearing protection

Refer to ESCAT for replacement ear pads for banded earplugs.

Inspect ear muffs according to SIMS worksheet, <u>PPE set: Personal protective</u> equipment.

For ear muffs, after use:

- Dispose of ear muff cushion covers. Refer to ESCAT for replacement cushion covers.
- Disinfect ear muffs with breathing apparatus disinfectant if cushion covers have not been used.

## 4.8 Respiratory protection

Dispose of P2 particle masks after use.

To clean, inspect and maintain air-purifying respirators such as the SE400 and S10, refer to:

- Recommended practice, <u>SE400 positive pressure respirator</u>.
- Recommended practice, <u>S10 respirator</u>.

Decontaminate breathing apparatus according to SOG 10.4, *Decontamination*. Contact Equipment Logistics Chullora if further decontamination is required. Disinfect facepieces and function test breathing apparatus according to:

- SIMS worksheet, <u>SCBA sets</u>
- SIMS worksheet, <u>BA extensions mask sets for SCBA</u>
- SIMS worksheet, <u>Air trolley BA.</u>

For replacing and filling BA cylinders and returning BA for service, refer to Recommended practice, *Self-contained breathing apparatus* (forthcoming).

## 4.9 Chemical protective clothing

### 4.9.1 Inspection

Limited-use splash suits must be undamaged in the sealed bag and within the expiry date. For more information, refer to Recommended practice, <u>Limited-use</u> <u>splash suits</u>.

Inspect chemical boots, chemical gloves and reusable splash suits according to SIMS worksheet, *Hazmat gear: Splash suits*.

Inspect FE suits according to SIMS worksheet, <u>Hazmat gear: Fully encapsulated</u> (FE) suits.

Damaged FE suits and reusable splash suits are returned to Equipment Logistics Chullora for repair. Contact Equipment Logistics Chullora.

### 4.9.2 After use

Decontaminate on leaving the Hot Zone according to SOG 10.4, *Decontamination*. If decontamination isn't possible, seek the advice of Hazmat Capability.

After decontamination, chemical boots and gloves, reusable splash suits, and FE suits, are bagged and tagged and returned to the station:

- a) Place items in contaminated gear bags.
- b) Complete a contaminated gear tag.
- c) Attach the tag to the bag with a cable tie.
- d) Return the bags to the station. Don't stow these items in the cabin. The wet hose basket is a suitable stowage location.
- e) Reusable splash suits, chemical boots and chemical gloves are hygiene washed at the station. FE suits are forwarded to a hazmat facility for a hygiene wash and inspection and test.

Dispose of limited-use splash suits after use. Contaminated suits should be disposed of as contaminated waste. Uncontaminated suits should be disposed of in

general waste. Chemical boots and gloves are returned to the station for a further hygiene wash.

### 4.9.3 Reusable splash suit hygiene wash

On return to the station:

- a) Rinse the interior and exterior of the suit, gloves and boots with fresh water.
- b) Fold the suit inside out.
- c) Spray the interior of the suit, gloves and boots liberally with breathing apparatus disinfectant.
- d) Leave for ten minutes.
- e) Rinse thoroughly with fresh water.
- f) Allow to air dry avoiding direct sun light.
- g) Inspect the suit, gloves and boots for defects according to SIMS worksheet, <u>Hazmat gear: Splash suits</u>.
- h) Fold the suit outside in, and pack with gloves in pouch.

For stubborn non-hazardous contaminants, the splash suit may be spot cleaned with methylated spirits.

### 4.9.4 FE suit cleaning and testing

Hygiene wash and inspection of FE suits is completed either at Greenacre, Hazmat Wollongong or Hazmat Newcastle. Contact Equipment Logistics Chullora for the correct destination and for a replacement suit.

Place the contaminated gear bag containing the FE suit inside the FE suit bag. Send the suit to the advised destination.

### 4.9.5 FE suit servicing

Fully encapsulated suits are serviced every thirty months. Exchange suits are sent out by Equipment Logistics Chullora. Once the exchange suit arrives at the station, place the suit requiring service inside the suit bag and return it to Equipment Logistics Chullora.

## Section 5: Managing heat stress

PPE must always be selected according to the risk, however ICs and officers in charge should also be aware that the higher the level of protection, the greater the risk of heat stress. Always consider heat stress, dehydration and the need for rehabilitation, particularly when:

- firefighters wear:
  - Level 1 and 2 PPE
  - Level A, B or C hazmat PPE
  - breathing apparatus
- firefighters are working in elevated temperatures or doing moderate or intense physical work.

<u>Section 6.2: 'PPE selection guide' on page 44</u> is a summary of the levels of PPE and which items of PPE should be worn in for each level. For a full description of each level, refer to Sections 6.3 to 6.11 on the following pages.

You must be aware of the symptoms of heat stress, and watch for these symptoms in yourself and your workmates.

Things you can do to prevent heat stress, or reduce its effects, include:

- Removing your personal protective or chemical protective clothing as soon as it is safe to do so.
- Drinking sufficient fluids, particularly after doffing breathing apparatus.
- Releasing the press studs on your structural firefighting trousers and the drawstrings on the cuffs of your duty wear trousers as soon as it is safe to do so. Be aware that the press studs are metal and may be hot.
- Resting in a cool, shady environment for as long as needed.
- Using active cooling techniques such as immersing your forearms and hands in cool water (ideally 10 – 20 °C) for 20 minutes.
- Improving your physical fitness and acclimatisation to working in warm conditions while wearing PPE.

**WARNING** 

If your PPE is contaminated:

- follow the Decontamination Officer's instructions on removing PPE
- don't remove respiratory protection until advised.

When working in hot environments you can reduce the flux of heat into your PPE by:

- Fastening the press studs on your structural firefighting trousers when working in an environment where heat may enter your trouser legs from below.
- Fastening the wrist tabs on your multi-purpose coat.
- Fastening the cuff on your duty wear trousers.

For more information refer to:

- SOG 18.3, Incident ground rehabilitation
- SOG 18.4, Incident ground health monitoring
- Heat illness: Training for firefighters.

## Section 6: Wearing PPE

## 6.1 Selecting appropriate PPE

PPE is the last barrier between firefighters and the hazards of emergency work. Where possible, select other controls to manage the risk before relying on PPE.

This recommended practice sets minimum standards. The Incident Controller must select PPE to suit operational conditions. These include, but are not limited to:

- the nature of the incident and task
- potential contaminants
- heat and physical stress on firefighters
- current weather and temperature.

Where the greatest risk from gases and vapours is flammability, not toxicity, wear Level 1 PPE.

Upgrading and downgrading PPE is determined by ongoing risk assessment.

Protection from hazards and risks must always take precedence over comfort.

The Rapid Intervention Team must be equipped to enter the same environment as those they may be required to rescue.

Firefighters may increase their level of PPE at any time.

Where necessary and where possible, the appropriate level of personal protective equipment must be provided to rescue patients.

### 🕱 WARNING

Defective PPE must NOT be worn, and must be replaced or repaired immediately.

When responding to incidents, crews must don PPE appropriate for the anticipated hazard. When the nature of the incident is unknown, crews must don structural firefighting PPC.

#### 

Where PPE is contaminated, Station Commanders must initially follow SOG 10.4, *Decontamination*.

<u>Section 6.2: 'PPE selection guide' on page 44</u> is a summary of the levels of PPE and which items of PPE should be worn in for each level. For a full description of each level, refer to Sections <u>6.3</u> to <u>6.11</u> on the following pages.

|  | Fire, rescue   | Fire, rescue, general duti                               | ities                |  |                   |  |                   | Hazmat   |                                  |                                |
|--|--|--|----------------------|--|-------------------|--|-------------------|--|----------------------------------|--------------------------------|
| Level:                                 | Level 1  | el 1   | Level 2              | el 2   | Level 3           | Level 4  |                   | Level A  | Level B                          | Level C                        |
| Minimum requirement for:               | Structural<br>firefighting –<br>internal or<br>offensive | Structural<br>firefighting –<br>external or<br>defensive | Bushfire<br>fighting | Operating<br>hydraulic<br>cutters &<br>spreaders | General<br>rescue | Station work,<br>brigade<br>exercises &<br>PIPs, IMTs,<br>Cold Zone,<br>rehabilitation | Physical training | Pooled<br>liquid,<br>vapour and<br>gas hazards | Splash<br>hazards<br>(with SCBA) | Splash<br>hazards<br>(with P2) |
| T-shirt                                | •  | •  | •                    |  |                   | 0  | •                 | •  | •                                | •                              |
| Duty wear shirt                        | 0  | 0  | 0                    | •  | •                 | •  |                   | 0  | 0                                | 0                              |
| Shorts                                 | •  | •  |                      |  |                   | O (rehab only)   | •                 |  |                                  |                                |
| Duty wear trousers                     | Recommended  | Recommended  | •                    | •  | •                 | •  |                   | •  | •                                | •                              |
| Baseball cap or sunhat                 |  |  |                      |  |                   | 0  | 0                 |  |                                  |                                |
| Dress boot                             |  |  |                      |  |                   | 0  |                   |  |                                  |                                |
| Firefighting boot                      | •  | •  | •                    | •  | •                 | •  |                   |  |                                  |                                |
| Structural coat                        | •  | 0  |                      |  |                   |  |                   |  |                                  |                                |
| Structural trousers                    | •  | •  |                      |  |                   |  |                   |  |                                  |                                |
| Protective hood                        | •  | •  | 0                    |  |                   |  |                   |  |                                  |                                |
| Structural helmet                      | •  | •  |                      | •  | 0                 |  |                   |  |                                  |                                |
| Structural glove                       | •  | •  | •                    |  |                   |  |                   |  |                                  |                                |
| Multi-purpose coat                     |  | •  | •                    | 0  | 0                 |  |                   |  |                                  |                                |
| Multi-purpose helmet                   |  |  | •                    |  | •                 |  |                   | 0  | 0                                | 0                              |
| GP glove                               |  |  |                      | •  | •                 |  |                   |  |                                  |                                |
| Safety glasses                         |  |  |                      | •  | 0                 |  |                   |  |                                  |                                |
| Goggles                                |  |  | 0                    | 0  | 0                 |  |                   |  |                                  | •                              |
| Hearing protection                     |  |  |                      | •  | 0                 |  |                   |  |                                  |                                |
| Splash suit, chemical gloves and boots |  |  |                      |  |                   |  |                   |  | ۲                                | •                              |
| FE Suit                                |  |  |                      |  |                   |  |                   | •  |                                  |                                |
| P2 particle mask                       |  |  | 0                    | 0  | 0                 |  |                   |  |                                  | •                              |
| SCBA                                   | •  |  | 0                    |  | 0                 |  |                   | •  | •                                |                                |
|  |  |  |                      |  |                   |  |                   |  |                                  |                                |

Assess the risks and don the level of PPE required by the hazard.

As required O

Key: Minimum requirement

PPE selection guide

6.2

## 6.3 Working on or near roadways

Whenever working on or near roadways, firefighters must wear a high visibility torso garment and high visibility trousers as shown below.

Firefighters must comply with SOG 13.2, <u>Safe work on roads</u> whenever working on or near roadways.

All garments comply with AS/NZS 4602.1, AS/NZS 4967, AS/NZS 4824, or with the draft AS/NZS 4602.2, *High visibility safety garments Part 2: Garments for fire service personnel.* 

Figure 44 High visibility torso garments



Structural firefighting coat



Multi-purpose coat







Tabard

High visibility vest

### High-visibility raincoat

Figure 45 High visibility trousers



Duty wear trousers



Structural firefighting trousers

## 6.4 Level 1 PPE

### 6.4.1 Definition

Level 1 PPE refers to:





Firefighting helmet

the get

Protective hood

Level 1 PPE items



Structural firefighting coat

Firefighting gloves



Structural firefighting trousers



Firefighting boots







Duty wear shirt, long-sleeved



Duty wear trousers and belt



T-shirt (alternative)



Shorts (alternative)

### 6.4.2 Application

Level 1 PPE is required:

- for structural firefighting
- when responding to automatic fire alarms
- vehicle fires
- when the nature of the incident is unknown.

Appropriate respiratory and hand protection must be worn when directly engaged in firefighting.

If you will be working in an environment where heat may enter your trousers legs from below, fasten the press studs on your trouser cuffs before entry.



### Figure 46 Press studs

To assist in reducing heat stress while standing-by, operating pumps, carrying out salvage and other non-firefighting operations, firefighters may remove coats, trousers and protective hoods if the officer in charge considers it safe to do so.

Members of the Incident Management Team must wear PPE appropriate to their task.

Executive or senior officers involved in incident management may dress down to level 4 PPE when working at a remote control point, however, anyone entering the Hot Zone must wear PPE as prescribed by the IC.

### 6.5 Level 2 PPE

#### 6.5.1 Definition

Level 2 PPE refers to:

Level 2 PPE items





Duty wear trousers and

belt



Multi-purpose coat

Multi-purpose helmet



Firefighting gloves







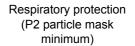
Firefighting boots and socks



Goggles



Protective hood (carried)



### Items worn underneath



Duty wear shirt



T-shirt (alternative)

#### Application 6.5.2

Level 2 PPE is suitable for bushfire fighting, hazard reduction burning and rescue operations where there is a greater risk of injury from sharp edges and other mechanical hazards.

## 6.6 Level 3 PPE

## 6.6.1 Definition

Level 3 PPE refers to:





Duty wear shirt



Multi-purpose helmet



Firefighting boots and socks



Duty wear trousers and belt



GP gloves



Respiratory protection (As required, P2 particle mask minimum)

## 6.6.2 Application

Level 3 PPE is suitable for general rescue and salvage operations, hazard reduction preparation, storm and flood recovery and working on roads (when worn with a high visibility torso garment).



### WARNING

Wear high visibility clothing whenever working on or near roadways. Refer to <u>Section 6.3: 'Working on or near roadways' on page 45</u> for more details.

## 6.7 Level 4 PPE

## 6.7.1 Definition

Level 4 PPE refers to:





Duty wear shirt (long or short-sleeved)



T-shirt (optional)



Baseball cap, sun hat or beanie



Ankle boots



Duty wear trousers and belt



Winter jacket (optional)



Operational socks



Firefighting boots

### 6.7.2 Application

Level 4 PPE is suitable for general station duties, undertaking SIMS checks, nonpractical training, community engagement and education activities.

Level 4 PPE consists of all duty wear items with requirements to upgrade the level of dress when in public and to upgrade the level of PPE as required according to the risk and the duties performed.

At the station:

- Firefighters may dress down to a FRNSW T-shirt. T-shirts must not be worn underneath the winter jacket.
- Don't wear firefighting boots in clean areas of the station.
- Station Officers must wear the duty wear shirt except when directly engaged in station work or drills when they may wear the wear the T-shirt at their discretion.

Excluding occasions when dress uniform is required, away from the station firefighters must wear a minimum of:

- duty wear shirt, trousers and belt
- operational socks
- firefighting boots
- head wear such as baseball cap or sunhat (the beanie is optional in winter months).

Appliance drivers may wear Level 4 PPE when responding to incidents.

Don PPE as appropriate according to the risk and the activity. For example, when conducting SIMS checks, wear:

- firefighting boots
- hearing, eye and hand protection as required.

Under no circumstance are the duty wear shirt, trousers, T-shirt, beanie, baseball cap or sunhat to be worn with the dress uniform.

Senior officers generally wear dress uniform. However when participating in practical exercises, attending incidents or when operational circumstances dictate, they may exercise their discretion and wear Level 4 PPE. Senior officers wear the peak cap in place of the baseball cap, beanie or sunhat.

## 6.8 Wearing hazmat PPE

When responding to hazmat incidents firefighters must wear Level 4 PPE until the appropriate level of protection has been determined.

Once the situation has been assessed, the IC will advise the appropriate protective clothing and equipment. This may include, but is not limited to:

- structural firefighting PPC
- splash suit
- FE suit

Always have another member check your chemical protection PPE before entering the Hot Zone.

SOG 10, *Hazardous materials* must be followed for all incidents involving hazardous materials. The level of protection required is determined by a risk assessment.

FE Suits and splash suits are unsuitable for protection in a flammable atmosphere or where fire is a risk.

Chemical protective clothing is worn over level 4 PPE, except for boots. (The exception is the charcoal suit, where firefighting boots are required. For more information, refer to Recommended practice, <u>Charcoal suit</u>.)

While FRNSW T-shirts may be worn under hazmat PPE, it is preferred that the long-sleeved duty wear shirt is worn. The duty wear shirt minimises skin contact with the suit interior.

## 6.9 Level A hazmat PPE

## 6.9.1 Definition

Level A hazmat PPE includes:



Multi-purpose helmet (optional)

Colour and style may vary according to FRNSW supply contracts.

### 6.9.2 Application

Level A hazmat PPE is suitable for pooled liquid, vapour, gas and chemical hazards, including situations where:

- there is a danger to any part of the wearer of gross contact with the hazard
- there is a potential for contact with corrosives (eg, acids)
- there is a potential for contact with substances which may be absorbed through the skin (eg, pesticides).

## 6.10 Level B hazmat PPE

## 6.10.1 Definition

Level B hazmat PPE includes:





Duty wear shirt and trousers



Splash suit



Chemical boots

Multi-purpose helmet

(optional)



Chemical gloves



SCBA

Colour and style may vary according to FRNSW supply contracts.

### 6.10.2 Application

Level B Hazmat PPE is suitable for:

- dust and splash hazards
- biological hazards
- some radiological hazards

Do not tuck arm and leg cuffs into the gloves or boots. Tucking cuffs into gloves and boots may allow splashed substances to flow into the glove and boot openings exposing the wearer.

For information on limited use splash suits, refer to Recommended practice, *Limited-use splash suits*.

## 6.11 Level C hazmat PPE

## 6.11.1 Definition

Level C Hazmat PPE includes:



### 6.11.2 Application

Level C Hazmat PPE is the minimum standard for dust and splash hazards where:

- There is no danger of any part of the wearer being engulfed by the hazard
- Risk assessment has determined that respiratory protection may be downgraded from SCBA to an air-purifying respirator such as a P2 mask or, in the case of specialist units, S10, SE400 or SE40.

Do not tuck arm and leg cuffs into the gloves or boots. Tucking cuffs into gloves and boots may allow splashed substances to flow into the glove and boot openings exposing the wearer.

For information on Tyvek, Tychem C and Tychem F limited use splash suits, refer to Recommended practice, *Limited-use splash suits*.

For information on charcoal suits, refer to Recommended practice, Charcoal suit.

## Section 7: Uniform

## 7.1 Uniform items

This list includes:

- dress uniform
- winter dress uniform
- ceremonial dress uniform
- ceremonial dress uniform modified formal option
- mess dress uniform

| Item                     | Graphic  | Item   | Graphic    |
|--------------------------|----------|--|------------|
| Peak cap                 |          | Dress belt<br>(male and female<br>options)           | $\bigcirc$ |
| Short-sleeved shirt      | T        | Long-sleeved shirt                                   |            |
| Dress trousers or slacks |          | Skirt or culottes                                    |            |
| Ankle boots              | ~        | Shoes<br>(male and female<br>options)                |            |
| Galatea                  |          | Court shoes<br>(female only)                         |            |
| Office socks or hosiery  | <b>/</b> | Clip on necktie<br>Women's necktie<br>Tie-on necktie | 178        |

### Table 6 List of uniform items

# Table 6 List of uniform items

| ltem          | Graphic | ltem                 | Graphic |
|---------------|---------|----------------------|---------|
| Cummerbund    |         | Black leather gloves |         |
| Winter jacket |         | Mess jacket          |         |
| Raincoat      |         | White cotton gloves  | A BE    |

### 7.2 Maternity uniform

Maternity dress shirts are supplied by FRNSW. Maternity skirts and trousers may be purchased privately, but must be black, conservatively styled and similar to the current dress uniform skirt and trousers.

Female firefighters:

- are entitled to five maternity shirts and five maternity skirts or trousers during a ٠ pregnancy
- are responsible for purchasing maternity skirts and trousers privately
- will be reimbursed for the cost of purchasing each maternity skirt or trousers to the value of women's uniform trousers.

## Section 8: Wearing uniforms

## 8.1 Dress uniform

## 8.1.1 Definition

Dress uniform refers to:





Peak cap



Dress shirt



Dress trousers and belt



Skirt or culottes and belt

Necktie



Station wear boots

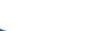


Shoes or court shoes



Winter jacket

.



## 8.1.2 Application

Firefighters must wear dress uniform when:

- assigned to offices
- representing FRNSW on, and engaging in, FRNSW business.

Dress uniform may be worn to or from the workplace and home.

When wearing the long-sleeved dress shirt and winter jacket, a necktie must be worn. The tie-on necktie must be worn with a Windsor knot.

Female firefighters may wear women's dress shoes; the women's necktie; and the skirt, slacks or culottes. Court shoes may only be worn with the skirt.

Senior officers may wear the long-sleeved dress shirt, tie-on necktie, office socks and shoes. Senior officers must wear chrome insignia buttons on the long and short-sleeved dress shirt pockets.

Dress uniform must be neatly pressed and worn with pockets buttoned. When outdoors, the peak cap must be worn with the dress uniform.

### 8.1.3 Winter dress uniform

Winter dress uniform refers to dress uniform with the addition of a necktie. Senior officers must wear the long-sleeved dress shirt.

Winter dress uniform must be worn in May, June, July and August. Winter dress uniform may also be worn in April and September.

## 8.2 Ceremonial dress uniform

### 8.2.1 Definition

Ceremonial dress uniform refers to dress uniform with the addition of the necktie and galatea.



### 8.2.2 Application

The ceremonial dress uniform must be worn for parades, presentations, interviews, oral examinations, graduations, public functions, religious and memorial services, funerals, receptions (where specified) and as directed by the Commissioner.

Between September and April, if weather conditions dictate, an Assistant Commissioner or above may permit removal of the galatea and allow the wearing of medals on dress shirts. Neckties must be worn.

Irrespective of season, the ceremonial dress uniform with galatea and ribbons must be worn for court appearances arising from official FRNSW duties. Firefighters not issued with a galatea may wear a winter jacket in cold weather in court.

Senior officers must wear the long-sleeved dress shirt.

Senior officers must wear the galatea issued after promotion to Inspector with the appropriate number of small insignia buttons on the cuff.

Superintendents and above must wear the galatea with the black leather gloves, also issued after promotion.

Firefighters wear white cotton gloves when they are:

- members of a banner or flag party
- the Commissioner's representative at an FRNSW funeral
- Officer-in-Charge at an FRNSW funeral
- Officer-in-Charge of the escort party
- Members of the pall-bearer party.

Both white cotton and black leather gloves may only be worn with the galatea. To shake hands during a ceremony, the right glove must be removed. When the ceremony has concluded, both gloves may be removed and carried in the left hand.

## 8.3 Ceremonial dress uniform – modified formal option

## 8.3.1 Definition

Ceremonial dress uniform - modified formal option refers to:



### 8.3.2 Application

An Assistant Commissioner or above may permit the wearing of modified formal ceremonial dress uniform for a formal occasion (eg, ball, dinner or formal reception). All firefighters attending should dress similarly with the exception of senior officers, who wear the mess dress uniform.

Plain white evening shirts, black bow ties and black shoes must be supplied at the firefighter's own expense.

## 8.4 Mess dress uniform

### 8.4.1 Definition

Mess dress uniform refers to:





Peak cap



Black bow tie



Chrome insignia buttons, hard board epaulettes and lapel pins

Black formal trousers

Black socks Shoes



Mess jacket



Cummerbund



Plain white evening shirt

Long or calf length black skirt

Black hosiery Shoes or court shoes

### 8.4.2 Application

The mess dress uniform is worn by senior officers attending functions in an official capacity, where formal evening dress is required. This includes:

- Official or public balls, dinners and evening receptions of a formal nature.
- Civic receptions or formal evening functions where officers are invited as the Commissioner's or FRNSW's representative.
- Formal inter service evening functions.

Mess dress uniform is issued to Inspectors as needed, to Superintendents on promotion, and to Country Inspectors on appointment if they have not already received a mess dress uniform.

Station Officers may purchase a mess dress uniform at their own expense for wear at these occasions. Station Officers subsequently promoted to Inspector will be reimbursed for the cost of that uniform following submission of a memorandum and receipts. Otherwise Station Officers wear the modified formal ceremonial dress uniform.

# 8.5 Physical training

## 8.5.1 Definition

Physical training uniform refers to:



# 8.5.2 Application

The physical training uniform may only be worn for approved fitness activities. For information on FRNSW approved fitness activities, refer to the FireFit section of the Intranet.

# 8.6 Uniform selection guide – firefighters and officers

| Item                                 | Dress |        | Winter d | Iress  | Ceremo | nial   | Ceremo<br>modifie | onial<br>d formal |
|--------------------------------------|-------|--------|----------|--------|--------|--------|-------------------|-------------------|
|                                      | Male  | Female | Male     | Female | Male   | Female | Male              | Female            |
| Peak cap                             | •     | •      | •        | •      | •      | •      | •                 | •                 |
| Dress shirt – short-sleeved          |       |        | •        | •      | •      | •      |                   |                   |
| Dress trousers                       | •     | /      | •        | 1      | •      | 1      | •                 | /                 |
| Slacks                               |       | /      |          | /      |        | /      |                   | /                 |
| Skirt                                |       | /      |          | /      |        | /      |                   | /                 |
| Culottes                             |       | /      |          | /      |        | /      |                   |                   |
| Dress belt                           | •     | •      | •        | •      | •      | •      | •                 | •                 |
| Ankle boots or shoes                 | •     | /      | •        | /      | •      | /      | •                 |                   |
| Women's shoes                        |       | /      |          | /      |        | /      |                   | /                 |
| Court shoes (with skirt or culottes) |       | /      |          | /      |        | /      |                   | /                 |
| Necktie                              | 0     | 0/     | •        | /      | •      | /      |                   |                   |
| Women's necktie                      |       | 0/     |          | /      |        | /      |                   | /                 |
| Winter jacket                        | 0     | 0      | 0        | 0      |        |        |                   |                   |
| Galatea                              |       |        |          |        | •      | •      | •                 | •                 |
| Bow tie                              |       |        |          |        |        |        | •                 | /                 |
| White cotton gloves                  |       |        |          |        | 0      | 0      |                   |                   |
| Plain white dress shirt              |       |        |          |        |        |        |                   | •                 |
| Raincoat                             |       |        |          | (      | с<br>С |        |                   |                   |

### Key:

- Minimum requirement ●
- As required O
- Interchangeable with similar items /

The matrix above provides a basic guide. For more information, refer to the sections describing the different uniforms.

# 8.7 Uniform selection guide – senior officers

| l to me   | Dress |        | Winter | dress  | Ceremo | onial  | Mess |        |
|---|-------|--------|--------|--------|--------|--------|------|--------|
| Item  | Male  | Female | Male   | Female | Male   | Female | Male | Female |
| Peak cap  | •     | •      | •      | •      | •      |        | •    | •      |
| Dress shirt – short-sleeved                           | •     | •      |        |        |        |        |      |        |
| Dress shirt – long-sleeved                            |       |        | •      |        | •      | •      |      |        |
| Dress trousers  | •     | /      | •      | /      | •      | /      |      |        |
| Slacks  |       | /      |        | /      |        | /      |      |        |
| Skirt   |       | /      |        | /      |        | /      |      |        |
| Culottes  |       | /      |        | /      |        | /      |      |        |
| Dress belt  | •     | •      | •      | •      | •      | •      | •    | •      |
| Men's shoes   | •     |        | •      |        | •      |        | •    |        |
| Women's shoes   |       | /      |        | /      |        | /      |      | /      |
| Court shoes (with skirt or culottes)                  |       | /      |        | /      |        | /      |      | /      |
| Necktie   | 0     | 0/     | •      | /      | •      | /      |      |        |
| Women's necktie                                       |       | 0/     |        | /      |        | /      |      | /      |
| Winter jacket   | 0     | 0      | 0      | 0      |        |        |      |        |
| Galatea   |       |        |        |        | •      |        |      |        |
| Leather gloves (black -<br>Superintendents and above) |       |        |        |        | •      | •      |      |        |
| Office socks (black)                                  | •     | •/     | •      | •/     | •      | • /    | •    |        |
| Hosiery   |       | •/     |        | •/     |        | •/     |      |        |
| White cotton gloves                                   |       |        |        |        | 0      | 0      |      |        |
| Mess jacket (red)                                     |       |        |        |        |        |        | •    | •      |
| Cummerbund  |       |        |        |        |        |        | •    |        |
| Plain white dress shirt                               |       |        |        |        |        |        | •    | •      |
| Formal trousers (black)                               |       |        |        |        |        |        | •    | /      |
| Bow tie   |       |        |        |        |        |        | •    | /      |
| Long skirt (black)                                    |       |        |        |        |        |        |      | /      |
| Hosiery (black)                                       |       |        |        |        |        |        |      | •      |
| Raincoat  |       | •      |        |        | 0      | •      |      | •      |

### Key:

- Minimum requirement •
- As required O
- Interchangeable with similar items /

The matrix above provides a basic guide. For more information, refer to the sections describing the different uniforms.

# Section 9: Rank insignia and accoutrements

# 9.1 Wearing insignia

Approved FRNSW rank insignia must be worn as described in Section 9.3 by senior officers; Section 9.4 by officers and permanent firefighters; and Section 9.5 by retained officers and firefighters.

Epaulettes must be worn with all items of PPC and uniform which take epaulettes.

Approved FRNSW role insignia must be worn as described in Section <u>9.6</u> by officers and firefighters assigned to specialised roles. Inspectors in the Fire Investigation & Research Unit and Communications wear role insignia. Other senior officers do not wear role insignia.

Other insignia are not permitted. Medals must not be worn on PPE.

### 9.1.1 Higher duties

When acting in positions above their substantive rank, Leading Firefighters and higher are entitled to wear the epaulette rank insignia of the higher rank for the duration of their higher duties. They must not, however, wear the helmet colour of the higher rank.

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### Firefighters may only act up one rank above their substantive rank.

The Deputy Commissioner may not wear Commissioner rank insignia when acting as Commissioner.

## 9.2 Name badges and labels

Name badges are worn by firefighters so that others can readily identify with whom they are dealing. Firefighters may wear a pin or magnetic name badge on duty wear and dress uniform shirts and a slide-on name badge on winter jackets.

Firefighters and officers wear blue name badges. Senior officers wear red name badges. Name badges must be worn 5 mm above the centre of the right shirt pocket.

The inscription on the name badge must include the wearer's name on the first line, followed by their position or rank on the second line, as described in Commissioner's Orders 2011/17, 'Name badges'.

Firefighters may wear a name label on the rear of their helmet. This is positioned in line with and between the rank insignia on either side. The helmet name label is adhesive and reflective. Firefighters choosing not to wear a name label on their helmet must wear a blank reflective label in its place.

Do not use other labels on helmets.

### **CAUTION**

Only use labels issued by FRNSW as other labels can contain adhesives that may deteriorate the outer coating of the helmet and affect its safety performance.

| Commissioner  | Deputy Commissioner   | Assistant Commissioner  | Chief Superintendent   | Superintendent   | Inspector  |
|---|---|---|--|--|--|
| <b>B</b> - 10   |   | av Ó Im   |  | s Ó s  | Li   |
| Black with black and white reflective insignia marked <b>C</b>  | White with black and white reflective insignia marked <b>DC</b>   | White with black and white reflective insignia marked <b>AC</b>   | White with black and white reflective insignia marked <b>CS</b>  | White with black and white reflective insignia marked <b>S</b>   | White with black and white reflective insignia marked I  |
|   |   |   |  |  |  |
| Black oak leaf pattern band,<br>double silver oak leaf braid on<br>peak with silver chin strap,<br>ornate badge surrounded by<br>laurel leaves and surmounted<br>by a crown | Black oak leaf pattern band,<br>single silver oak leaf braid on<br>peak with silver chin strap,<br>ornate badge surrounded by<br>laurel leaves and surmounted<br>by a crown | Black oak leaf pattern band,<br>single silver oak leaf braid on<br>peak with silver chin strap,<br>ornate badge surrounded by<br>laurel leaves and surmounted<br>by a crown | Black oak leaf pattern band,<br>silver braid on peak with silver<br>chin strap, semi-ornate badge<br>surmounted by a crown | Black oak leaf pattern band,<br>silver braid on peak with silver<br>chin strap, semi-ornate badge<br>surmounted by a crown | Black oak leaf pattern band,<br>silver braid on peak with silver<br>chin strap, semi-ornate badge<br>surmounted by a crown |
| -8 @ 0  | <b>P</b>  |   | -#   |  | -  |
| Crest and coat of arms<br>encompassed by laurel wreath<br>surmounted by small impeller<br>and crown   | Crest and coat of arms<br>encompassed by laurel wreath<br>surmounted by crown   | Crest and coat of arms<br>encompassed by laurel wreath  | Two medium impellers<br>surmounted by crown.   | Single medium impeller<br>surmounted by crown.   | Single crown   |
| Black velvet gorgets with 3 oak<br>leaves (silver bullion<br>embroidered)   | Black velvet gorgets with 3 oak<br>leaves (silver bullion<br>embroidered).  | Black velvet gorgets with 3 oak<br>leaves (silver bullion<br>embroidered)   | Black velvet gorgets with 3 oak<br>leaves (chrome)   | Black velvet gorgets with 3 oak<br>leaves (chrome)   | Velvet gorgets with straight<br>chrome bar   |
| Three small buttons on galatea<br>cuff  | Three small buttons on galatea<br>cuff  | Three small buttons on galatea<br>cuff  | Three small buttons on galatea<br>cuff   | Two small buttons on galatea<br>cuff   | One small button on galatea<br>cuff  |

Senior officers insignia

9.3

| Station Officer  | Leading Firefighter   | Senior Firefighter 15  | Senior Firefighter   | Qualified Firefighter   | Firefighter Level 1  | Recruit Firefighter  |
|--|---|--|--|---|--|--|
|  |   | years  |  |   | and Level 2  |  |
| 05 0 05  | 15 O 15   | LE.  | LII<br>III   | LH.   | LI Ó III   | <b>N</b> O <b>N</b> O  |
| Red with black and white<br>reflective insignia marked<br><b>SO</b>  | Lime yellow with black<br>and white reflective<br>insignia marked <b>LF</b> | Lime yellow with black<br>and white reflective<br>insignia with three<br>horizontal bars | Lime yellow with black<br>and white reflective<br>insignia with two<br>horizontal bars | Lime yellow with black<br>and white reflective<br>insignia with one<br>horizontal bar | Lime yellow with black<br>and white reflective<br>insignia marked 1 or 2 | Lime yellow with black<br>and white reflective<br>insignia marked <b>S</b> on<br>green |
|  |   |  |  |   |  |  |
| Black oak leaf pattern<br>band, silver Russian braid<br>on band, semi-ornate<br>FRNSW badge<br>surmounted by a crown | Black with black band and<br>black chin strap, FRNSW<br>badge               | Black with black band and<br>black chin strap, FRNSW<br>badge                            | Black with black band and<br>black chin strap, FRNSW<br>badge                          | Black with black band and<br>black chin strap, FRNSW<br>badge                         | Black with black band and<br>black chin strap, FRNSW<br>badge.           | Black with black band and<br>black chin strap, FRNSW<br>badge                          |
|  |   |  |  |   |  | RECRUIT  |
| Two medium impellers   | One large impeller  | Three white chevrons<br>with red crossed axes  | Two white chevrons with red crossed axes   | One white chevron with<br>red crossed axes  | No epaulette   | Green epaulette with<br>lettering <b>RECRUIT</b>                                       |

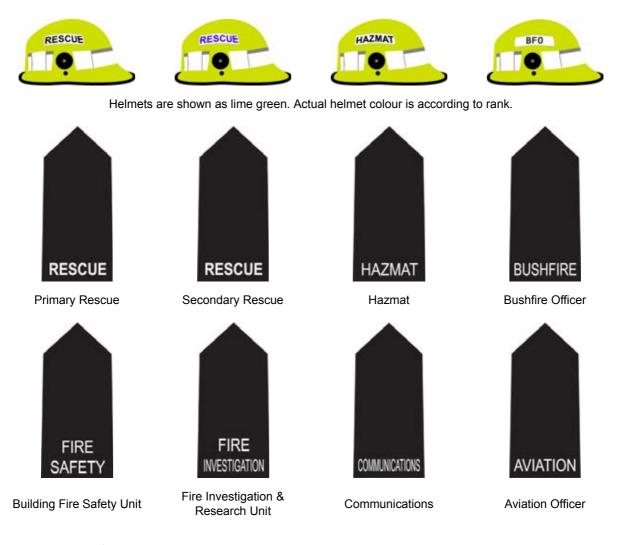
9.4

Version 03, August 2013

| Captain  | Deputy Captain  | Retained Firefighter<br>15 years  | Retained Firefighter<br>10 years  | Retained Firefighter<br>5 years  | Retained Firefighter<br>Level 1 and Level 2  | Retained<br>Recruit Firefighter  |
|--|---|---|---|--|--|--|
|  |   |   |   | <b>U</b>   |  |  |
| Orange with red and<br>white reflective insignia<br>marked <b>C</b>  | Lime yellow with red and<br>white reflective insignia<br>marked <b>DC</b> | Lime yellow with red and<br>white reflective insignia<br>marked with three<br>horizontal bars | Lime yellow with red and<br>white reflective insignia<br>marked with two<br>horizontal bars | Lime yellow with red and<br>white reflective insignia<br>marked with one<br>horizontal bar | Lime yellow with red and<br>white reflective insignia<br>marked <b>1</b> or <b>2</b> as required | Lime yellow with red and<br>green reflective insignia<br>marked <b>S</b> |
|  |   |   |   |  |  |  |
| Black oak leaf pattern<br>band, silver Russian braid<br>on band, semi-ornate<br>badge surmounted by a<br>crown | Black with black band and<br>black chin strap, FRNSW<br>badge             | Black with black band and<br>black chin strap, FRNSW<br>badge                                 | Black with black band and<br>black chin strap, FRNSW<br>badge                               | Black with black band and<br>black chin strap, FRNSW<br>badge                              | Black with black band and<br>black chin strap, FRNSW<br>badge                                    | Black with black band and<br>black chin strap, FRNSW<br>badge            |
| 00   |   |   |   |  |  | STUDENT  |
| Two red medium<br>impellers  | One red medium impeller   | Three red chevrons with red crossed axes  | Two red chevrons with red crossed axes  | One red chevron with red crossed axes  | No epaulette   | Green epaulette with<br>lettering STUDENT                                |
|  |   |   |   |  |  |  |

# 9.6 Specific role insignia

## 9.6.1 Helmets and epaulettes



NOTE

Ranks above Firefighter Level 2 to Station Officer who qualify for role insignia wear epaulettes with both rank and role.

Firefighter Level 1 and Firefighter Level 2 may wear epaulettes describing their role without rank insignia.

### 9.6.2 Aviation Officers

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Aviation Officers are identified by a distinct wing insignia consisting of a FRNSW Crest centrally located with outstretched wings.

The Aviation Wings are only to be worn by:

- officers permanently attached to the Aviation Branch as Aviation Officers
- relieving Aviation Officers only when performing duties at the Aviation Branch.

The insignia is centrally located 10 mm above the left breast pocket or 10 mm above any medals/ribbon bar worn on the left breast.

# Section 10: Hairstyles and jewellery

Commanders and Managers must ensure that all staff under their command comply with this policy.

This policy does not apply to administrative or technical support staff, to CFU volunteers, or to firefighters with an exemption from their Director.

# 10.1 Hairstyles

Providing a firefighter keeps their hair in a neat manner, the acceptability of the style will be judged by the criteria set out below:

- The bulk or length of hair must not interfere with the normal wearing of a standard uniform cap, helmet, or other safety equipment.
- If fringes are worn, they must be maintained a minimum distance of 38 mm above the eyebrows. Fringes must not interfere with the seal of the breathing apparatus facemask.
- The hair style and cut may be tapered or 'blocked', however it must not be 'tiered' or 'spiked', nor contain colouring other than that which may be considered natural, ie blonde, grey, black, etc.
- Hair may cover the top quarter of the ears if desired. Hair must never be of such bulk or length that it will jeopardise the personal safety of the firefighter in the performance of firefighting or other emergency operations.
- Hair which, when loose, would normally fall below the top of the uniform shirt collar, must be braided and/or held up in a bun (without the aid of solid objects, such as bobby pins, clasps, combs, etc.), so as to be secure and lie as flat against the skull as practicable and to be clear of the helmet or baseball cap head band.
- The hair must be clear of the shirt collar and neat and tidy. The measurement is taken with the person standing, looking horizontally ahead and not wearing a necktie.

## 10.1.1 Wigs and synthetic hairpieces

Wigs, toupees or other synthetic hairpieces may be worn on duty to cover natural baldness or physical disfiguring caused by accidents or medical procedure. The use of such wigs must not interfere with the wearing of any PPE, (in particular breathing apparatus) and must conform with the requirements in <u>10.1: 'Hairstyles'</u>.

# 10.2 Facial hair

Firefighters must be clean shaven.

The remainder of this section does not apply to personnel permanently attached to a Communication Centre (excluding Communications Centre relievers) and personnel on transitional or permanently modified duties who are granted an exemption by their Director.

Facial hair may interfere with the:

- P2 particle mask
- full facemask peripheral seal on breathing apparatus, SE400 or S10

- correct operation of inhalation and exhalation valves
- seal of the orinasal mask within the BA facemask, resulting in a buildup of carbon dioxide in inhaled air.

Therefore, the face must be clean shaven for working. Requirements are:

- No stubble.
- Sideburns must not extend below a line drawn to the top of the tragion (the notch in the cartilage of the ear just above and immediately in front of the ear hole) and the canthus (corner) of the eye. They must have parallel sides and be close clipped.
- Beards and goatees of any description or hair below the lower lip are not permitted.
- Moustaches:
  - must be kept neatly trimmed and tidy and not protrude beyond extended lines drawn vertically from the corners of the mouth and more than 6 mm below the bottom of the upper lip
  - must not interfere with the seal of the orinasal mask
  - waxed points are prohibited.

## 10.3 Body jewellery

Body jewellery refers to earrings, studs and all other adornments used in conjunction with body piercing, e.g. nose rings, eyebrow studs, tongue studs, navel rings, etc.

Firefighters must not wear visible body jewellery while on duty.

Body jewellery has particular risks, including:

- interfering with breathing apparatus
- damaging PPE such as gloves and chemical suits, exposing the wearer
- increasing the risk of electric shock.

## 10.4 Other jewellery

Other jewellery refers to necklaces, bracelets, rings, etc.

To reduce risks and prevent accidents, firefighters are encouraged to not wear any jewellery while on duty.

Jewellery carries particular risks, including:

- becoming snagged on, or puncturing materials
- · de-gloving injuries to the wearer
- increasing the risk of electric shock
- puncturing PPE such as nitrile gloves or chemical protective suits, exposing the wearer
- causing burns, as metallic objects rapidly conduct radiant heat to the wearer.

Protective clothing must cover loose jewellery such as necklaces and bracelets.

Jewellery which might damage or puncture nitrile gloves or chemical protective clothing must not be worn under these items.

# Section 11:Community Fire Unit PPE

# 11.1 Responsibilities

Community Fire Unit (CFU) members must wear PPE as described in this section.

Firefighters who supervise CFU members must enforce the PPE as described in this section.

# 11.2 Fact sheets – CFU PPE

## \Lambda ΝΟΤΕ

Existing supply of CFU PPE has the old NSWFB branding. When stocks are exhausted, new stock will be supplied with FRNSW branding.

## 11.2.1 CFU personal protective clothing

CFU personal protective clothing (CFU ensemble) is a two-piece ensemble that provides a moderate level of thermal protection. When the coat is worn with the trousers, it meets the requirement for high visibility clothing for working on roads.



### Figure 47 CFU ensemble

The CFU ensemble is provided to protect the wearer from radiant heat and physical hazards. It is not intended to protect against direct flame contact. The CFU ensemble is light and flexible to help avoid heat stress. It is loose fitting which allows airflow to remove metabolic heat. There are adjustable hook and loop

fasteners at the throat and wrists. The wrist fasteners may be tightened when additional protection is required, however doing so inhibits the release of metabolic heat and increases the risk of heat stress.

The CFU ensemble should be worn with the CFU T-shirt. During operations the CFU coat must be worn fully buttoned up with the collar raised and the throat tab closed.



Synthetic materials must never be worn beneath the CFU ensemble or overall, as serious injury could result.

The CFU ensemble must be checked before and after use, and at regular intervals for:

- soiling and contamination (wash when required)
- rips, tears, cuts, holes and fraying
- damaged, misaligned or missing buttons, zippers or hook and loop fasteners
- damaged organisational insignia and printing
- charring, burn holes, melting, discolouration of any layer
- damaged or missing reflective trim
- loss of seam integrity and broken or missing stitches.

The CFU ensemble must be washed according to the manufacturer's instructions on the label.

#### 

These instructions also apply to the discontinued CFU overall.

### 11.2.2 CFU helmet

The CFU helmet provides a moderate level of head protection.

The CFU helmet must be worn at all operations carried out by CFU members where a level of head protection is required and whenever deemed necessary by a FRNSW or emergency services officer.

The CFU helmet must be checked before and after use, and at regular intervals for:

- Soiling and contamination (clean when required)
- Cracks, crazing, dents, gouges and abrasions
- Bubbling, soft spots, warping, discolouration
- Charring, burn holes, melting
- Damaged or missing reflective trim and insignia.
- Damaged or missing components of the suspension and chin strap.

Refer to <u>Section 4.4: 'Helmets' on page 37</u> for helmet cleaning and repair instructions.



Figure 48 CFU helmet

### 11.2.3 CFU boots

CFU boots provide moderate level protection against ankle and foot injury. Boots are fitted with a reinforced toe cap.

CFU members must wear the boots in conjunction with the CFU ensemble.

Inspect CFU boots before and after use and at regular intervals for:

- soiling and contamination (clean when required)
- any separation of upper from sole
- lace damage
- tread depth (at least 1.5 mm), wear, exposure of mid sole and cracking
- severe abrasion, cuts, tears, punctures, or cracking
- charring, burn holes, melting or discoloration of any layer
- exposed or deformed steel toe, steel mid-sole, or shank
- seam integrity and broken or missing stitches
- water resistance.

To clean CFU boots:

- a) Sponge the outer surface clean with water only.
- b) Allow to dry naturally, out of direct sunlight.
- c) Apply a leather protectant with a lint free cloth, working well into the edges and stitching.

### 11.2.4 General purpose gloves

GP gloves are designed to prevent common hand injuries such as abrasions and cuts.

GP gloves must be checked before and after use and at regular intervals for:

- stitching wear or damage
- holes or tears in the glove and liner
- · cracking or splitting
- range of movement
- soiling and contamination.

To clean excessively soiled gloves:

- a) Remove any dried dirt or dust from the gloves using a firm bristled brush.
- b) Clean the gloves with a cloth dampened with a combination of water and liquid detergent.
- c) Wipe the gloves dry with a clean, dry cloth.
- d) Do not soak the gloves in water.
- e) Allow gloves to dry naturally out of the direct sunlight.

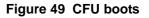


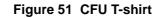


Figure 50 GP gloves



# 11.3 CFU T-shirt

The CFU T-shirt is designed to be worn by CFU members underneath the CFU coat during firefighting and hazard reduction activities. If the T-shirt is unavailable, a cotton or woollen shirt is acceptable.





The CFU T-shirt may be worn without the coat during training and when not involved in firefighting or hazard reduction activities.

### 11.3.1 CFU baseball cap

The CFU baseball cap provides limited protection from sun and glare. It may be worn by CFU members when they are outside and not at risk from hazards requiring additional head protection.





### 11.3.2 CFU kit bag

The CFU kit bag holds a CFU member's complete PPE kit when not in use.





# 11.3.3 CFU T-shirt, baseball cap and kit bag maintenance

The CFU T-shirt, baseball cap and kit bag must be checked prior to use for:

- soiling and contamination (wash when required)
- rips, tears, cuts, holes and fraying
- excessive fading and degraded printing
- loss of seam integrity and broken or missing stitches.

# 11.4 Wearing CFU PPE

## 11.4.1 Definition

The CFU uniform refers to:



P2 respirator

GP gloves

Goggles

CFU kit bag

### 11.4.2 Application

The CFU uniform must be worn during all CFU operations such as property protection during bushfires, training and participation in hazard reductions.

A maximum of 15 CFU uniform sets are supplied per Community Fire Unit. Members not supplied with CFU uniform should wear:

- natural fabrics (eg cotton, denim or wool)
- a heavy-weight long-sleeved shirt (e.g. cotton drill or flannelette)
- heavy-weight trousers (eg denim jeans, oil-free drill pants or cotton overalls)
- sturdy leather work boots, preferably with reinforced toe caps
- thick socks
- a wide-brimmed hat
- work gloves
- goggles
- a disposable respirator or wet cloth (non-synthetic).

Clothing contaminated with flammable substances (eg, fuels or oils) and synthetic clothing must not be worn. This presents a significant fire risk to the wearer.

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# Index

### A

air-purifying respirators 26 clean and maintain 40 P2 particle mask 26 SE400 and S10 27 alterations to uniform and PPE 4 automatic fire alarms, PPE required 47

### В

baseball cap 31 CFU 76 beanie 31 body jewellery, wearing 72 boots, ankle 32 boots, CFU 75 boots, chemical 28 boots, firefighting 18 examples of damage 36 inspection 36 when not to wear 18 borrowing uniform or PPE 5 breathing apparatus 25 decontamination 40 disinfect facemasks and function check 40 facemask as eye protection 23 inspection 39 wearing with a splash suit 29 wearing with FE suits 30 when to wear 25 WHS requirements for facial hair 71 WHS requirements for hairstyles 71 bushfire fighting PPE 48 bushfire goggles 23

## С

ceremonial dress uniform definition 60 when to wear 60 ceremonial dress uniform, modified formal definition 61 when to wear 61 CFU ensemble 73 CFU kit bag 76 CFU overall 74 CFU PPE alternative PPE choices 77 high-visibility garments 73 inspecting and cleaning boots 75 inspecting and cleaning clothing 74 inspecting and cleaning helmets 74 list of items 73–76 responsibilities 73 wearing 77 chemical protective clothing 28-30 decontaminating 40 inspecting 40 commuting to work, wearing uniform 3 contaminated PPE 43

cooling down 42 court appearances uniform required 60 CPR personal pack 30

### D

damaged PPC 34 disposals policy 5 dress uniform 58 when to wear 59 duty wear shirt 9 when to wear 9, 50 duty wear trousers 10 leg cuffs 10 managing heat stress 10 when to wear 10, 50

### Ε

epaulettes, description officers and firefighters 68 retained officers and firefighters 69 senior officers 67 specific roles 70

## F

FE suits 30 clean and test 41 managing heat stress 30 servicing and repair 41 flammability hazards, PPE 43

### G

gloves blood and body fluid contamination 38 examples of damage 38 inspecting 38 gloves, chemical 28 gloves, disposable 21 wearing with GP gloves 21 when to wear 21 gloves, electrical insulation 21 when and how to wear 22 gloves, firefighting 20 cleaning 38 when to wear 20 gloves, GP 20 CFU application 75 cleaning 38 when to wear 20 gloves, riggers 22 cleaning 38

### Н

hairpieces, wearing 71 hairstyles, requirements 71 hazmat PPE 28, 52 hearing protection 24 cleaning 39 ear muffs 24 ear plugs 24 heat stress 42 splash suits 29 structural PPC 16 helmet description officers and firefighters 68 retained officers and firefighters 69 senior officers 67 specific roles 70 helmet, CFU 74 helmet, multi-purpose 19 emergency supply 5 when to wear 19 helmet, structural 18 check chin strap screws 37 emergency supply 5 face shield as eye protection 24 when to wear 19 helmets children not to wear 18 examples of damage 37 inspecting and cleaning 37 name label 66 helmets, condemning 37 higher duties 66 high-visibility garments 45 CFU ensemble 73 high-visibility vest 17 raincoat 32 tabards 17 hiring uniform or PPE 5

### I

ICS tabards 17 Incident Management Team, PPE required 47 initial issue of uniform and PPE 4 insignia Aviation Officers 70 higher duties 66 on epaulettes 67–70 on helmets 67–70 on peak caps 67–69 wearing 66

### J

jewellery body jewellery 72 risks of wearing jewellery 72 wearing 72

### L

laundering 33 Level 1 PPE 46 Level 2 PPE 48 Level 3 PPE 49 Level 4 PPE 50 senior officers 51 Level A hazmat PPE 53 Level B Hazmat PPE 54 Level C hazmat PPE 55

### Μ

marking PPE and uniform with name 4 maternity uniform 57 mess dress uniform 62 when to wear 62 multi-purpose coat 16 managing heat stress 16 when not to wear 17 when to wear 16

### Ν

name badges 66 how to wear 66 name, marking PPE and uniform 4 neck ties, wearing 59

### Ρ

P2 particle mask 26 dispose of after use 40 fittina 27 when to wear 26 peak cap description officers and firefighters 68 retained officers and firefighters 69 senior officers 67 physical training uniform 63 policy, wearing PPE and uniform 1 PPC examples of damage 34 inspecting 33 laundering 33 repair service 34 PPE list of items 6 providing to rescue patients 24 selection guide 43 PPE kit bag and contents 32 protective hood description 10 managing heat stress 11 wearing 10 providing PPE to patients 24, 43

### R

radio equipment in FE suit 53 raincoat high-visibility 32 station wear 32 when not to wear 32 Rapid Intervention Team, PPE 43 rescue PPE 49 responding to hazmat incidents PPE to wear 52 responding to incidents PPE to wear 43 responsibilities CFU PPE 73 firefighters 2 heat stress 42 motor drivers 2 officers and managers 2 resuscitation shield 30

### S

S10 27 safety glasses 24 safety goggles 23 cleaning 39 lens replacement 39 when to wear 23 SCBA, see breathing apparatus SE400 27 selection guide PPE 44 uniform, firefighters and officers 64 uniform, senior officers 65 selling uniform or PPE 5 shorts physical training uniform 63 wearing with PPC 9 socks, operational 10 splash suit repair 40 splash suits 28 hygiene wash 41 inspecting 40 limited use 28 limited-use dispose of after use 40 managing heat stress 29 when to wear 29, 55 station duty PPE 50 storing PPE and uniform at work 4 structural firefighting coat and trousers 11 checking the fit 13-15 construction 11 donning and doffing 15 laundering 33 managing heat stress 16 moisture barrier 11 radio frequency identification device 33 stowing 12 when not to wear 12

structural firefighting PPE 46 sun hat 31

### Т

tabards 17 theft 5 T-shirt CFU 76 physical training uniform 63 station wear 50 wearing with PPC 9

### U

unauthorised disposal of uniform or PPE 5 uniform list of items 56 selection guide, firefighters and officers 64 selection guide, senior officers 65

### V

vehicle fires, PPE 47

### W

wearing PPE and uniform off duty 3 responsibilities 2
winter dress uniform definition 59 time of year to wear 59
winter jacket 31
working on or near roadways, PPE 45

# Document information

# **Related documents**

All FRNSW policy and procedure documents which describe the wearing, inspection and maintenance of items of PPE, including:

- SIMS worksheets
- Recommended practices
- Standard Operational Guidelines.

# Document control

| Policy manager  | Director Logistics Support   |  |  |
|-----------------|--|--|--|
| Contact officer | Manager Equipment Research & Design  |  |  |
| Contact no      | (02) 9742 7174   |  |  |
| Document type   | Procedure  |  |  |
| Applies to      | <ul> <li>X Permanent firefighters</li> <li>X Retained firefighters</li> <li>X Community Fire Unit members</li> <li>Administrative and trades staff</li> <li>Contractors and consultants</li> </ul> |  |  |
| Status          | Draft  |  |  |
| Security        | Unclassified   |  |  |
| File reference  | FRN12/1928   |  |  |
| Review date     | February 2014  |  |  |

| Rescinds  | Recommended practice, <i>Wearing personal protective clothing, equipment and uniform</i> , Ver 02             |
|-----------|---|
|           | Recommended practice, <i>Wearing of uniforms and personal protective equipment (PPE)</i> , Version A01.       |
|           | Commissioner's Orders 2012/21, 'Recommended practices for wearing uniforms and personal protective equipment' |
|           | In Orders 2009/8, 'Direct supply of bushfire/safety goggles'  |
|           | In Orders 2008/26, 'Supply of women's uniform'  |
|           | In Orders 2005/27, 'Use of NSWFB uniforms and insignia'   |
|           | In Orders 2005/27, 'Wearing uniforms and personal protective equipment'                                       |
|           | In Orders 2004/24, 'Multi purpose helmets - name identification'  |
|           | In Orders 2004/18, 'Multi purpose helmets'  |
|           | In Orders 2003/18, 'Wearing rank insignia when performing higher duties'                                      |
|           | In Orders 2003/5, 'Children wearing helmets'  |
|           | Operations Bulletin 2005/4, <i>Personal protective equipment – Correct wearing of gloves</i>                  |
|           | Operations Bulletin 2004/9, Selection and wearing of hazmat PPE   |
|           | Safety Bulletin 2006/14, Firefighting helmet chin straps.   |
|           | Safety Bulletin 2003/8, Cairns firefighting helmets   |
|           | Safety Bulletin 2000/4, Head and neck protection  |
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# **Revision history**

| Version       | Date        | Status    | TRIM ref  | Details  |
|---------------|-------------|-----------|-----------|--|
| Version A(01) | Dec 2005    | Rescinded |           |  |
| Version 02    | Sept 2012   | Rescinded | D12/29976 | Includes new PPC.<br>Includes all changes in procedure<br>and issue since Version A(01).<br>Deletes trade staff uniforms and<br>PPE.   |
| Version 03    | August 2013 | Approved  | D13/5125  | <ul> <li>Update branding and style.</li> <li>Include:</li> <li>changes in issue and procedure since Version (02)</li> <li>modifications to structural fire PPC</li> <li>selection guides for wearing uniform.</li> </ul> |