



Standard Operating Procedure 3.2.1 Personal Protective Equipment (PPE)

Introduction

Work Health and Safety (General) Regulations 2022 r36 (5) and r41A establishes the obligation of the employer to provide adequate personal protective clothing and equipment (the acronym 'PPE' shall be used to refer to both clothing and equipment) where it is not practical to avoid the presence of hazards in the workplace.

Work Health and Safety Act 2020 Part 2, Division 2, Section 28 requires employees to take reasonable care of themselves and other persons who may be affected by what they do or fail to do at work.

[WHS Legislation](#)

[WHS Regulations](#)

Emergency service response is an intrinsically hazardous undertaking, with limited capacity to manage hazards in workplaces that are not under our control. Therefore, PPE must always be utilised to supplement and augment other means of hazard control to further minimise risk of injury, particularly where other hazard control measures are not feasible or cannot be implemented immediately.

This procedure provides guidance for use of DFES-issued PPE for personal hazard protection. Further information is provided in Doctrine.

[Directive 3.2 - Incident Control](#)

Principles/Planning Factors

1. General

When determining appropriate PPE to be worn at an incident the following principles and planning factors need to be considered and balanced according to risk.

PRINCIPLE	DESCRIPTION
Purpose	<p>The purpose of PPE is to protect the wearer from injury. When PPE is damaged as a result of a near miss or exposure to a hazard it does not necessarily indicate a failure of the PPE, in fact it may indicate that the PPE has served its purpose (providing the wearer was un-injured). It does however warrant a review of the task being undertaken.</p> <p>Where PPE has been damaged or has failed to protect the wearer, an investigation is required to identify weaknesses and rectify appropriately.</p>
Minimum standard	<p>The minimum dress requirements are issued work uniform:</p> <ul style="list-style-type: none">• For firefighting operations this is the Nomex viscose cargo pants and cotton T-shirt or Nomex viscose work shirt, and firefighting rated footwear.• For non-firefighting emergency response operations this will be overalls or work uniform with safety footwear.



PRINCIPLE	DESCRIPTION
Operational readiness	Emergency responders are expected to respond at short notice to a wide range of emergency situations. Personnel and volunteers must therefore have all their PPE available for use at all times while on duty or on call, etc. Operational readiness also requires that personnel are physically ready and have ensured their equipment is made ready.
Dressing down for heat management	<p>Heat is a contributing factor to fatigue and must be taken into consideration on hot/humid days and during extended and/or high intensity operations. OIC must ensure dress is commensurate to risk at all times and are therefore encouraged to resource appropriately to facilitate dressing down and periods for rest and active cooling wherever possible.</p> <p>Note: The possibility of dressing down or decontamination in the field requires that personnel wear Level 1 pants and T-Shirt (as a minimum) under PPE at all times.</p> <p>Note: On days of extreme heat or humidity, crews may put off dressing fully until arrival at the incident to delay metabolic heat build-up.</p>
Hazard specific	Consideration needs to be given to specific hazards identified and/or expected at an incident when dressing in PPE to ensure the optimum safety, health and welfare of emergency responders.
Safety	<p>It is DFES policy to provide protection for the emergency responder, and it is the responsibility of each individual and their supervisor to ensure this policy is complied with.</p> <p>Health & Safety Policy</p>
Emergency responder identification	PPE worn at an incident provides an organisational identity and provides the level of authority required to ensure public safety.

Procedures

1. Risk Assessment of PPE Levels

OIC are to ensure crews are turned out in PPE appropriate to the incident type and expected hazards, either donned or immediately available. [Annex A](#) provides a recommended starting point for PPE decision-making according to hazard. PPE specifics will vary across service groups. OIC has final decision-making authority.

Upon arrival, periodically during, and post the incident, OIC and personnel are to risk assess the hazards at the incident, environmental conditions and tasks being performed, against worn PPE levels and adjust accordingly. Individual employees and volunteers play a pivotal role in the risk assessment process as only they can provide personal information relating to their fatigue, heat, hydration, health, fitness, etc. and therefore must inform their OIC of any factors which may inhibit their ability to safely undertake operational duties. Factors to consider when conducting a PPE risk assessment include the following:



FACTOR	DESCRIPTION
Protection Level	The level of PPE necessary to provide protection against the hazards encountered.
Physiological Effects	The physiological effects of the set PPE level, in particular with regard to heat build-up, and fatigue.
Wearer Activity	Work rate, intensity and duration.
Wearer Pre-Condition	Previous activities, heat and hydration levels.
Environment	Climactic conditions (temperature and humidity). Time of day.
Incident Phase vs Threat	Scaling operational tempo and tactics throughout an incident afford opportunities to increase and decrease levels of protection.
Crew Tasking	Crew rotation, task rotation and regular rest breaks should be used whenever possible to mitigate effects of dehydration, heat and fatigue. Fatigue Management Policy Fatigue Management Guidelines Recommended task rotation timeframes for extreme work conditions on days with very high temperatures are: <ul style="list-style-type: none">• 15-20 min task rotations with 20 min break periods.

Annexes

[A PPE Matrices by Hazard](#)

[B SES Cold Climate Clothing](#)

[C SES Air Search Observers](#)



Document History

VERSION	DATE	DESCRIPTION OF CHANGE
1.0	May 2009	New SOP created. New sections created: • (All) Source documents: • Operational Circular 70/2007 All listed SOP/SAP, now retired.
1.1	Jul 2011	Note 7 added to accommodate non-structural fire members Version control Footer inserted Document History inserted
1.2	Aug 2011	Changed footnote format from numeric to alpha. Added the use of wet weather jackets.
1.3	Jan 2012	Changed requirements for wear P2 particle masks to include cutting of composite fibre's and fibrous materials
1.4	May 2012	Re-format to align with current Doctrine format No new information Changed heading from PPE to PPC (current terminology)
2.0	Aug 2013	Added Introduction Added Principles/Planning factors Added Procedures Edited FRS matrix to included USAR/VR/CSR/IC/IMT/Land Based Marine Added Matrix SES/VFS/VES/BFS/VMRS
2.1	Oct 2013	Altered FRS RCR Trousers to L2.
2.2	Oct 2013	Updated formatting Inserted 'Structural Enhanced' details in Annex E to define L2 requirements for suitably qualified BFS personnel.
2.3	Apr 2014	Inclusion of minimum PPC requirements for CBRN in Annex A
2.4	Apr 2014	Added paragraphs 3 – 8 Added PPC for VMRS
2.5	Nov 2014	Aligned all PPC requirements, so all services have equivalent standard for same hazard.
2.6	Dec 2015	SES – Firefighting support: changed goggles to a 1 and added a 1 to particle mask.
2.7	Jul 2016	Chainsaw Operator - Added note to footwear (must be Steel Capped).
2.8	Dec 2016	"Crew Tasking" content added to section 3, with table.
2.9	Apr 2018	SES Annex B - Glove "Level One/Wildfire" replaced with "General Purpose".
2.10	Jun 2018	BFS Annex E – Clarify Level One and Level Two PPC requirements.
2.11	Oct 2018	SES Annex B –Removal of mention to Steel Capped safety boot.
2.12	May 2021	Strengthening of guidance relating to heat stress and risk assessment. Included guidance on operational readiness. Removed air temperature/humidity risk rating table. All non-risk assessment and selection guidance moved to SAP 1.3.F – Uniform and PPE Management
2.12	Nov 2022	Adding Cold Weather PPE for select Search and Rescue Roles. Added RUI Operations into Annex A
2.13	Sept 2023	Add Annex C
2.14	May 2024	Add Gaiters to SES PPE spreadsheet
2.15	Aug 24	Minor edit adding Annex C to hyperlink list pg 3

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SOP 3.2.1	PPE Matrices by Hazard	ANNEX A
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BUSHFIRE	PPE ITEM																							
	HEAD												TRUNK/ARMS						LEGS/FEET					
	HAT	FLASH HOOD	HELMET			EYE PROTECTION			RESPIRATORY PROTECTION			HEARING PROTECTION	TUNIC		GLOVE				TABARD / HI VIS	TROUSERS			BOOTS	
ROLE / HAZARDS			Level One General	Level Two	Specialist Rescue	Safety Glasses	Goggles	Safety Shield	Particle Mask	Respirator & Filter	BA	Ear Plugs/Ear Muffs	Level One	Level Two	Level One	Level Two	Bio-hazard Inner	Nitra-Solvex		Level One	Level Two	Chaps	Safety Boots	HAZMAT BOOTS
Incident Control/IMT	1																		✓				✓	
Grass/Scrub/Bushfire			✓				✓			✓			✓		✓					✓			✓	
Asset Protection/RUI Operations			✓	1			✓			✓	1		✓	1	✓	1				✓	1		✓	
Chainsaw Operator			✓			✓	1	1	1			✓										✓	✓	
Firefighting Support			✓				1		1						✓								✓	
Routine Appliance and Equipment Checks	1		1			✓			1			1			✓								✓	

URBAN FIRE	PPE ITEM																							
	HEAD												TRUNK/ARMS						LEGS/FEET					
	HAT	FLASH HOOD	HELMET			EYE PROTECTION			RESPIRATORY PROTECTION			HEARING PROTECTION	TUNIC		GLOVE				TABARD / HI VIS	TROUSERS			BOOTS	
ROLE / HAZARDS			Level One	Level Two	Specialist Rescue	Safety Glasses	Goggles	Safety Shield	Particle Mask	Respirator & Filter	BA	Ear Plugs/Ear Muffs	Level One	Level Two	Level One	Level Two	Bio-hazard Inner	Nitra-Solvex		Level One	Level Two	Chaps	Safety Boots	HAZMAT BOOTS
Incident Control/IMT	1																		✓				✓	
Structure Fire/DBA		✓		✓		1	1		1	1	1	1		✓		✓					✓		✓	1
Defensive Structure Fire			✓			1	1		1	1		1	✓		✓					✓			✓	
Mobile Property		✓		✓		1	1		1	1	1			✓		✓					✓		✓	1
HAZMAT/CBRN				✓		✓	1			1	1			✓		✓	1	1			✓			✓
Industry Requirements			✓			✓			1	1	1	1	✓		✓			1	✓				✓	
Land Based Marine Fire		✓		✓			1				1			✓		✓					✓		✓	1
Routine Appliance and Equipment Checks	1		1			✓			1			1			✓								✓	

✓ Recommended level of protection.

1 Appropriate when higher level of protection is required.



SEARCH & RESCUE NATURAL HAZARDS	PPE ITEM																													
	HEAD												TRUNK/ARMS										LEGS/FEET							
ROLE / HAZARDS	HAT	BEANIE	HELMET			EYE PROTECTION			RESPIRATORY PROTECTION			HEARING PROTECTION	TUNIC/ SHIRT/ OVERALLS				GLOVE					TABARD / HI VIS	TROUSERS					BOOTS		
			Level One General	Level Two	Specialist Rescue	Safety Glasses	Goggles	Safety Shield	Particle Mask	Respirator & Filter	BA	Ear Plugs/Ear Muffs	Level One	Level Two	Thermal Top	Polar Fleece Pullover	Level One General	RCR Glove	Bio-hazard Inner	Thermal Gloves	Nitra-Solvex		Level One	Level Two	Thermal Pants	Chaps	Gaiters	Safety Boots	HAZMAT Boots	
Incident Control/IMT	1																					✓						✓		
Road Crash Rescue			✓			✓	1		✓	1		1	✓	1				✓	✓					✓	1				✓	1
Confined Space Rescue			✓			✓	1		✓	1	1	1	✓				✓		1						✓				✓	1
Vertical Rescue					✓	✓	1										✓		1									✓		
USAR Cat 1/General Rescue			✓			✓	1		✓	1		1	✓				✓		1					✓	1				✓	
Chainsaw Operator			✓			✓	1	1	1			✓														✓		✓		
Air Search												1											2							
Land Search	✓	1				1									1	1	1		1	1					1		1	✓		
Storm Damage			✓			✓	1					1	✓				✓		1										✓	
Structural Damage			✓			1	1		1				✓				✓		1										✓	
Flood Boat Rescue	✓				1	1											1		1											
All Terrain Utility					✓	1							✓				1		1										✓	
Routine Appliance and Equipment Checks	1		1			✓			1			1					✓												✓	

MARINE RESCUE	PPE						
ROLE/HAZARD	HEAD		TRUNK		LIMBS/HANDS/FEET		WET WEATHER GEAR/ WETSUITS
	Hat	Helmet	PFD/Lifejacket	Tabards/HI VIS vest	Bio-hazard	Footwear	
Incident Control/IMT	✓			✓		✓	
Search and Rescue	✓		✓		1	✓	
General Duties	✓		✓		1	✓	
Inclement Weather			✓			✓	✓
Personal Water craft		✓	✓			✓	✓
Casualty Handling			✓		✓	✓	

✓ Recommended level of protection.

1 Appropriate when higher level of protection is required.

2 Blue Cargo Pants as per [Annex C](#)



Introduction

This Annex details the cold climate apparel to be issued to thirty approved SES volunteers in the Great Southern Region who respond to operations in climates requiring apparel outside of standard issue.

It provides instructions on the scale of issue and the ordering process for items of apparel over and above the standard PPC issued to SES volunteers.

1. Principles

- **Range of Movement** – PPC to allow freedom of movement for rescue scenarios including use with harnesses
- **Temperature Management** – Apparel to assist in maintaining core temperatures
- **Moisture Management** - Apparel to assist in the transmission of moisture away from the body during physical activity and maintain warmth when wet
- **Wind / Rain Protection** – Apparel to minimise effects of wind and rain to maintain core body temperature.

2. Procedure

- District Officer Natural Hazards Great Southern (DO NH GS) will maintain the list of approved Great Southern SES volunteers and will inform the supplier when changes occur
- SES Volunteers will refer to the PPC matrix to identify apparel entitlements ([Annex A](#))
- Individual entitlements are a one-off entitlement and are replaced based on fair wear and tear or insurance
- Apparel will be ordered online by the approved officer(s) within each SES Unit on behalf of their approved volunteers through the DFES supplier
- Unit orders for this apparel must be accompanied by the name of the approved volunteers
- Only approved Units will be able to view and order apparel online
- Orders will be approved by the DO NH GS
- Orders will be tracked via the online ordering system and reports will be available through the supplier to ensure the scale of issue is not exceeded without reasonable justification



3. Subsequent Actions

- Unit ordering officers will be briefed on the ordering process
- Initial issue of apparel to volunteers will be accompanied by a briefing on correct use, care, replacement and responsibility to maintain apparel

4. Safety

- Items provided are to be used as intended to provide the maximum level of protection and comfort
- Items will be replaced if they unable to perform the intended function

Cold Climate Clothing Matrix

Role	Head	Torso		Waist/Leg	Hands
	Beanie	Thermal Top	Polar Fleece Pullover	Thermal Pants	Gloves
Approved Volunteer (Limit 30)	1	1	1	1	1



Introduction

This annex details the apparel to be issued to thirty approved SES volunteers who fulfil the SES ASO role requiring apparel outside of standard issue.

It provides instructions on the scale of issue and the ordering process for items of apparel over and above the standard PPC issued to SES volunteers (DFES Operational and Non Operation Navy Cargo style pants).

1. Principle

- **Range of movement** - In Western Australia, the Australian Maritime Safety Authority trains Metropolitan State Emergency Service volunteers as Air Search Observers (ASOs). Qualified ASOs fly in search aircraft to look for signs of people lost or in distress on land and in the water. The ASO training includes safety on and around aircraft, air search operations and emergency procedures including Helicopter Underwater Escape Training (HUET) and life raft / life jacket drills. With the change to training being introduced and conducted in 2021 to incorporate HUET, it has now been identified that the current uniform standard, namely the DFES SES Navy Dress Pant/Trouser is not suitable attire when flying in small to medium sized aircraft, or in the event of escape procedures being initiated. ASOs have reported that the current dress pant/trouser allows very little movement between the body and garment.

2. Procedure

- District Officer Natural Hazards South East (DO NH SE) will maintain a list of approved SES ASOs and will inform the supplier when changes occur.
- Navy DFES Navy Cargo style pants only to be worn during ASO duties and training activities.
- Individual requirements are a one-off entitlement and are replaced based on fair wear and tear and insurance.
- Apparel will be ordered online by the approved officer(s) within each SES Unit on behalf of their approved volunteers through the DFES supplier.
- Unit orders for this apparel must be accompanied by the name of the approved volunteers.
- Orders will be approved by the DO NH SE
- Orders will be tracked via the online ordering system and reports will be available through the supplier to ensure the scale of issue is not exceeded without reasonable justification.



3. Subsequent Actions

- Unit ordering officers will be briefed on the ordering process.
- Initial issue of apparel to approved volunteers will be accompanied by a briefing on correct use (i.e. ASO duties only), care, replacement and responsibility to maintain apparel.

4. Safety

- Items provided is to be used as intended to provide the maximum level of protection and comfort.
- Item will be replaced if unable to perform the intended function.

SES Air Observer Clothing Matrix

Role	Head	Torso	Legs	Feet
	Black SES cap	Black SES Polo shirt	DFES Navy Cargo style pants	Black Safety Boots
Approved Volunteer (Limit 30)	1	2	1	1