



Fire safety guideline

Emergency services information package and tactical fire plans



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Fire Safety Branch
Community Safety Directorate

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1 Purpose

The purpose of this guideline is to ensure that firefighters are provided with specific information regarding a building, facility or site (i.e. premises) that allows them to develop and implement effective strategies and tactics to manage a fire or other emergency incident.

2 Scope

This guideline details Fire and Rescue NSW (FRNSW) requirements for:

- a) meeting legislated obligations to provide information for use during an emergency
- b) an emergency services information package (ESIP) that provides emergency services personnel with specific information for strategic and tactical purposes
- c) tactical fire plans (TFPs) that identify installed fire safety systems and features
- d) standardised form and content of ESIP and TFPs including colour coding, symbols and terminology
- e) acceptable locations for the ESIP
- f) management of the ESIP including review, audit and updating.

3 Application

This guideline applies to any premises that:

- a) contains a fire control centre (FCC) or fire control room (FCR)
- b) contains a facility emergency control centre (FECC)
- c) is a major hazard facility (MHF) as determined under the [Work Health and Safety Regulation 2017 \(WHS Reg.\)](#)
- d) is an explosives site as defined by the [Explosives Regulation 2013](#)
- e) has been determined applicable by a consent or regulatory authority.

This guideline is intended to be used by any person conducting a business or undertaking (PCBU), or otherwise nominated the responsibility, of any applicable premises.

Note: The PCBU may delegate specific roles in emergency preparedness and response as deemed appropriate for the emergency control organisation (ECO) of the premises.

This guideline may be used by any external contractor or consultant who is engaged to provide specialist advice and services with developing and reviewing emergency planning, including associated documentation.

This guideline has been developed in the public interest and is intended to be used by any consent or regulatory authority when determining any relevant premises.

Note: Any consent or regulatory authority may impose requirements from this guideline, either in part or in full, as a condition of consent or licensing.

4 Definitions

The following definitions apply in this document:

Alternative solution (or performance solution) – means a method of complying with the National Construction Code performance requirements other than by a ‘deemed-to-satisfy’ solution.

Emergency incident – means an abnormal and dangerous, or potentially dangerous, situation that may harm or threaten to harm persons, property or the environment, and which requires urgent action to control, correct and return to a safe condition.

Emergency plan – means a written plan which details the actions required to be undertaken by occupants of a premises during a fire or other emergency incident.

Emergency response procedures – means written procedures outlining the response to an emergency incident, such as activation of the ECO, emergency response teams, firefighting teams, evacuation, emergency shutdown, spill containment, specialised equipment etc.

Emergency services – means an agency with the legislated responsibility for combating and managing an emergency incident (e.g. Police, Fire and Ambulance).

Emergency services information package (ESIP) – means a folder containing concise information necessary to allow emergency services to commence operations and develop effective strategies and tactics to manage a fire or emergency incident.

Explosives site – means a site which stores more than 50kg net explosive quantity of explosives (mass of explosive exclusive of non-explosive components), or more than 50 tonnes of security sensitive dangerous substances, or combination of both.

Fire control centre (FCC) – means an area from which firefighting operations or other emergency procedures can be directed or controlled.

Fire control room (FCR) – means a dedicated room which contains the FCC as well as other controls, indicators and equipment for fire services installed within a building.

Facility emergency control centre (FECC) – means an area where designated persons coordinate information, develop strategies, support logistics, control response teams, address media, and other functions to manage an emergency incident.

Fire safety system – means an active and/or passive system which warns people of an emergency, provides safe evacuation, restricts or extinguishes fire.

Hazard scenario – means a credible and likely scenario that causes an emergency incident at the premises, and requires attendance of the emergency services.

National construction code (NCC) – means the *National Construction Code (NCC) Volume One, Building Code of Australia Class 2 to Class 9 Buildings*, as amended.

Major hazard facility (MHF) – means any facility determined by the regulator to be a major hazard facility under [Part 9.2](#) of the *WHS Reg.*

Premises – means any building, facility or site in which this guideline applies.

Regulator – means the regulatory authority responsible for general workplace safety and hazardous chemicals within the workplace, being SafeWork NSW.

Tactical check list (TCL) – means a check list of tactical tasks firefighters follow or consider to effectively manage a fire or emergency incident.

Tactical fire plans (TFPs) – means scaled drawings of the premises that show the location of installed safety systems and features. TFPs are a component on the ESIP.

5 Background

The *WHS Reg.* requires the PCBU to identify hazards and manage risks to health and safety by implementing a hierarchy of control measures at their premises. The PCBU must provide information, instruction and training to employees and other persons as may be necessary to ensure their health and safety (e.g. emergency plan).

When the premises inherently present greater occupant life safety risks, the PCBU should provide information and instruction to emergency services that are required to manage identified hazards and risks during a fire or emergency incident.

Note: Increasing levels of complexity of a premises will result in commensurate increases in hazards and risks faced by emergency services during a fire or emergency incident.

The ESIP provides firefighters with concise, easy to read information necessary to direct and control emergency operations from the control centre. Such information may be critical for developing and implementing an incident action plan and appropriate tactics.

Note: As a minimum, an ESIP containing basic overview, contact details, site plan and schematic drawings should be provided at the FCC facility for use by firefighters.

6 Legislated requirements

6.1 National Construction Code

Clause E1.8 of the NCC requires a FCC facility in accordance with Specification E1.8 be provided for:

- a) a building with an effective height of more than 25m; and
- b) a Class 6, 7, 8 or 9 building with a total floor area of more than 18 000m².

Clause 2 of Specification E1.8 of the NCC requires the FCC to be an area to direct or control firefighting operations or other emergency procedures, and not used for any other purpose unless concerning occupant safety or security.

Clause 3 of Specification E1.8 of the NCC requires the FCC be located so that egress from the floor to a road or open space does not exceed 300mm change in elevation.

Clause 6 of Specification E1.8 of the NCC requires a FCC to be within a separate room (i.e. FCR) if the building has an effective height of more than 50m.

Clause 9 of Specification E1.8 of the NCC requires the FCR to contain additional controls and indicators for fire pumps, smoke control fans and other required fire safety equipment installed in the building (e.g. master emergency, lift annunciation, utility shutdown, emergency generator, security/surveillance).

Clause 9 of Specification E1.8 of the NCC also requires the FCR contain durable colour-coded TFPs and a plan layout table of suitable size to lay out the plans.

6.2 Work Health and Safety Regulation 2017

SafeWork NSW has republished the code of practice *Managing the work environment and facilities*.

Clause 43 of the *WHS Reg.* requires the PCBU to provide an emergency plan for their workplace, detailing emergency procedures for staff and occupants of the premises.

Note: Refer to AS 3745–2010 *Planning for emergencies in facilities* for guidance on developing emergency plans and procedures.

Clause 361 of *WHS Reg.* requires any workplace that use, handles or stores hazardous chemicals that exceed manifest quantities as prescribed in Schedule 11 of the *WHS Reg.* to lodge a copy of their emergency plan to FRNSW.

Clause 557 of *WHS Reg.* requires an operator of a licensed MHF, as determined by the regulator, to consult with FRNSW when preparing their emergency plan.

6.3 Explosives Regulation 2013

Clause 90 of the *Explosives Regulation 2013* requires a licence holder who stores more than 50kg net explosive quantity of explosives, or 50 tonnes of security sensitive dangerous substances, to provide a draft of their emergency plan to FRNSW.

6.4 State Environmental Planning Policy No 33

The *State Environmental Planning Policy No 33 – Hazardous and Offensive Development* is an environmental planning instrument used when considering any application for potentially hazardous or offensive development. It assists the consent authority to assess whether a development is hazardous or offensive, and conditions to impose on the development that will reduce or minimise any adverse impact it has.

The policy makes reference to various *Hazardous Industry Planning Advisory Paper (HIPAP)* documents which define the risk assessment and safety planning processes that are to be formulated and implemented.

HIPAP No. 1 – Emergency Planning identifies the resources necessary to effectively manage an emergency including a FECC, emergency alarm system, emergency communications system, public warning system, and other emergency equipment. These requirements are specified into the design and approval following extensive consultation with stakeholders, including FRNSW.

The FECC (or any alternative) is required to be readily accessible, appropriately resourced with communications equipment, and provided with essential documentation to manage any emergency incident. Ideally, the FECC is located outside the potential hazard zone. If the hazard zone envelops the FECC during an emergency, control operations should proceed to an alternative control centre identified within the emergency plan.

Note: A dedicated FECC may not be necessary for smaller facilities that could utilise existing office amenities during an emergency.

Documentation essential for managing an emergency include the emergency plan and emergency response procedures for use by premises occupants, and ESIP, hazardous chemicals manifest and safety data sheets for use by responding firefighters.

7 Emergency services information package

7.1 Function

- 7.1.1 The ESIP is to provide firefighters and other emergency services with specific information that can be used during operations and develop effective strategies and tactics to manage a fire or emergency incident.

Note: The ESIP is intended for use by emergency services only and supplements the emergency plan for occupants. Operational considerations may result in attendance by firefighters who are totally unfamiliar with the premises.

- 7.1.2 The ESIP is to provide guidance to the FRNSW incident commander (IC) on specific tasks critical to safely managing the emergency (e.g. occupant evacuation, emergency shutdown procedures, special extinguishing agents or systems).

7.2 Form and construction

- 7.2.1 The ESIP is to be a complete, self-contained, portable package that can be picked up and used in any location deemed appropriate for the given emergency.

Note: The ESIP may be removed and taken to an external location such as a mobile command centre that has been established as the incident command point.

- 7.2.2 The ESIP is to be constructed and assembled as follows:

- a) The contents are contained within an A3 size plastic covered D-ring binder folder.
- b) The ESIP folder must be clearly identified by the following (see Figure 1):
 - the company or premises name
 - **'EMERGENCY SERVICES INFORMATION PACKAGE (ESIP)'**
 - **'IMPORTANT INFORMATION'**
 - **'DO NOT REMOVE FROM'** followed by the ESIP location.
- c) All pages (except TFPs) are to be printed on medium stock A3 size paper (i.e. 120-150gsm) in portrait orientation.
- d) All pages are to be laminated for durability and protection against damage, then hole-punched so they are easily removable from the ESIP folder.
- e) The ESIP must be indexed into sections with tab dividers that enable firefighters to quickly access relevant information (refer to section 7.3.1).
- f) All drawings (e.g. TFPs) must be added to the ESIP as follows:
 - A3 size directly inserted into the folder
 - A2 size folded in half, with score line, then directly inserted into the folder
 - where there are many A2 size drawings, these may be inserted into a separate A2 size plastic covered D-ring binder folder which is appropriately labelled and kept with the ESIP
 - where larger than A2 size, rolled and stored within a roll tube which is appropriately labelled and kept with the ESIP.

Note: Drawings larger than A2 size are only acceptable when a suitably sized plan layout table is provided.

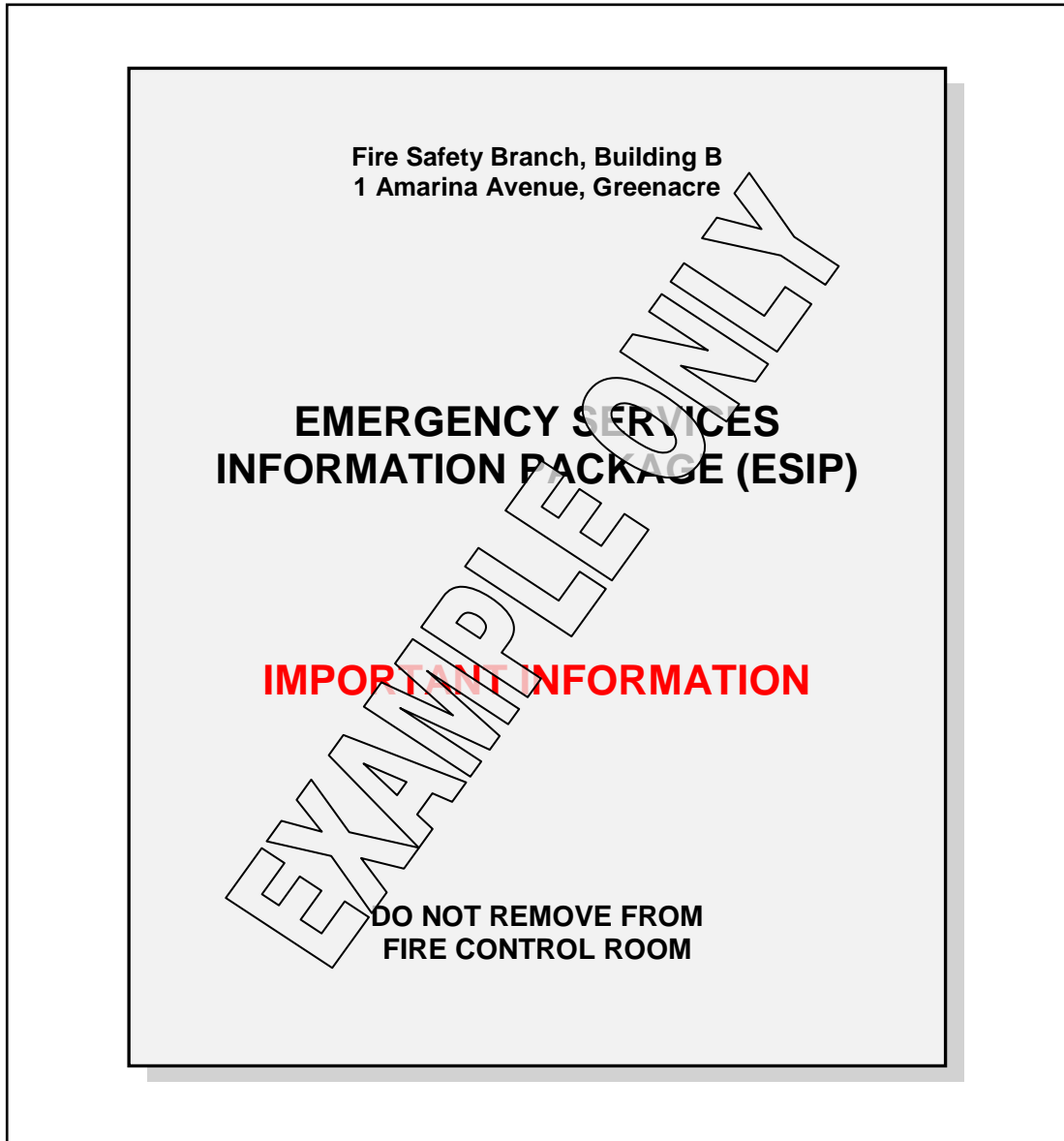


Figure 1 Example folder cover of ESIP

- 7.2.3 All textual information is to be minimum Arial size 14 font with 1.5 times line spacing and double line paragraph spacing.
- 7.2.4 Each page is to be identified for continuity (e.g. header/footer with section title, version or revision number, date of issue, page number by page 'x' of 'y' pages etc.).
- 7.2.5 The ESIP is to use standard terms and abbreviations as referenced by relevant Australian Standards. Where industry specific abbreviations are used, a list is to be provided (refer to Appendix A for list of common abbreviations).
- 7.2.6 Pages may be printed double-sided on the long edge, so pages remain upright when turned. However, single-side pages may make it easier to update individual pages.
- 7.2.7 If any existing A4 size information pages are to be included into the ESIP, they are to be printed or copied scaled at 141% (i.e. A4 → A3 enlargement ratio).

7.3 Content of emergency services information package

7.3.1 The ESIP is to contain the following:

- a) Title page – the first page when the ESIP folder is opened must include:
 - the company or premises name and logo
 - the premises address and company head office address
 - the premises geocode location (i.e. GPS latitude and longitude coordinates)
 - the SafeWork NSW reference number (if applicable)
 - two (2) emergency contacts (name, position and after-hours phone number)
 - the version/revision number, date of issue and date of next review.
- b) Premises overview – a brief overview outlining primary nature of business, key functions or processes undertaken, number and size of buildings (e.g. number of levels), typical tenancy/occupancy during day time and night time etc.
- c) Contacts list – a list of key personnel that can be contacted during an emergency (e.g. facility emergency controller, emergency services liaison officer, emergency response team, area managers, engineers or technicians, security etc.).
- d) Evacuation overview – the ECO and warden structure with corresponding floor, zone or building evacuation plan (site or elevation view as appropriate) which also indicates the primary and secondary assembly areas.
- e) Tactical check lists – TCLs as detailed in section 7.4.
- f) Hazardous chemicals – a copy of any manifest as detailed in section 7.5.
- g) Alternative solution summary – a copy of any summary as detailed in section 7.6.
- h) Tactical fire plans – a copy of TFPs as detailed in section 8.

7.4 Tactical check lists

7.4.1 Where appropriate TCLs are to provide a checklist of tasks to be undertaken, including in specific order if required, to manage any hazard scenario identified by the emergency planning committee during their emergency identification and analysis process (refer to Appendix C and Appendix D for examples).

7.4.2 TCLs should be developed through consultation between the PCBU, subject matter experts, emergency planning consultants and FRNSW. The FRNSW fire safety branch can be consulted to provide advice, including operational capabilities within the area and emergency management or disaster plans needing consideration.

7.4.3 TCLs are to include a transition between emergency response procedures for the emergency response team (ERT) to management by the emergency services.

Note: Tasks may need to be incorporated into the emergency response procedures to ensure they are enacted by the ECO and ERT.

7.4.4 TCLs are to identify a hierarchy of staff to undertake specific roles as per the ECO and emergency response procedures (e.g. facility emergency controller, emergency services liaison officer, wardens, ERT, engineers/technicians).

7.4.5 TCLs are to identify the location and type of control, valve or assembly that performs an activation, shutdown, isolate, transfer, bypass or other task as identified in the check list.

Note: The relevant TFPs drawing and grid location should be referenced.

7.4.6 Details of equipment or features specific to each TCL should be provided, including:

- fixed suppression system details – e.g. location and capacity of water monitors, deluge system, foam system, gas extinguishing system, static water source/volume
- suppression medium details – e.g. volume/quantity, storage method, foam type, application rate (%), equipment/delivery method
- bulk storage tank details – e.g. typical contents, actual and maximum capacity, roof type, diameter/height, access points
- spill containment details – e.g. bund wall and compound construction, capacity, surface area, spill equipment, barriers/dams, stormwater isolation valves
- exposure details – e.g. heat radiation zones, explosion zones, exclusion area, cooling water for exposures (in L/min.).

7.4.7 Where necessary, TCLs are to incorporate tasks to return critical systems, processes and/or equipment to normal operation, and ready the premises for reoccupation.

7.4.8 The 'worst case' scenario is any emergency that exceeds the capacity of installed measures and requires an augmented response by the emergency services. A TCL for any 'worst case' scenario should be provided when relevant.

7.4.9 Where a TCL is common to a number of hazard scenarios a reference table can be provided to assist the user locate the correct TCL (refer to Appendix E).

7.5 Hazardous chemicals manifest

7.5.1 A hazardous chemicals manifest is required if the workplace uses, handles or stores hazardous chemicals above manifest quantities as prescribed in [Schedule 11](#) of the *WHS Reg.* Under [Clause 347](#) of the *WHS Reg.* the workplace must prepare a hazardous chemicals manifest for firefighters responding to an emergency incident.

Note: Refer to [Notification for Schedule 11 hazardous chemicals and abandoned tanks – guidance material](#) from SafeWork NSW for further information.

7.5.2 FRNSW has published a [Hazardous chemicals manifest](#) technical information sheet outlining requirements for this manifest, which is available at www.fire.nsw.gov.au.

7.5.3 A consent or regulatory authority may require the manifest quantity workplace to provide an ESIP as a condition of consent or licensing, even if not a threshold quantity workplace or determined MHF.

7.5.4 If an ESIP is required to be provided for the premises, a copy of the hazardous chemicals manifest including manifest site plan is to be included within the ESIP.

Note: The hazardous chemicals manifest is still required to be located in positions as outlined in the [Hazardous chemicals manifest](#) technical information sheet.

7.6 Alternative solution summary

7.6.1 If the building has an alternative solution to meet the performance requirements of the NCC, a summary of the solution is to be provided to assist firefighters determine what impact, if any, it may have on firefighting operations.

7.6.2 The summary is to be developed with the assistance of the fire safety engineer who developed the alternative solution and is to include any specific recommendations that have been made by FRNSW for inclusion during its design and construction.

7.6.3 The summary is to provide details of the applicable fire engineering report (FER) including where a copy of the report is kept on site, document number, version number, date of issue and name of author/fire engineer who prepared the report.

7.6.4 A summary of each alternative solution issue is to be made and grouped by NCC performance requirement which include, but is not limited to:

- | | | | |
|-----|-----------------------------|-------|-----------------------------|
| CP1 | Structural stability | EP1.3 | Fire hydrant system |
| CP2 | Spread of fire | EP1.4 | Fire suppression system |
| CP9 | Fire brigade vehicle access | EP1.6 | Fire brigade facilities |
| DP4 | Building exits | EP2.2 | Evacuation route tenability |
| DP5 | Fire isolated exits | EP3.2 | Emergency lifts |

Note: Provisions for special hazards (e.g. Clauses E1.10 or E2.3 of NCC) should be identified in each respective summary where applicable.

7.6.5 The summary is to be presented in simple table format, with each alternative solution issue summarised into plain English and the impacts/potential impacts on firefighting operations explained in a format readily understood by firefighters. For example:

Summary of solution		Impact to operations
CP1 Structural stability		
FRL in retail levels reduced from 180/180/180 to 120/120/120.	Cease fire suppression and evacuate upon any sign of structural weakening.	
EP1.3 Fire hydrant system		
Fire hydrant booster located in 'Side' street. Signage provided at main entrance and booster fitted with green strobe light.	Second arriving appliance should proceed to 'Side' street as per pre-incident plan.	
Additional hydrant not within 30m of stairwell 'B' fire hydrant.	Additional hydrant is intended for sprinkler contained fire in SW corner only. In all other cases, coverage can be provided by fire hydrants in stairwells 'A' or 'B'. Two lengths of hose may be required if the additional hydrant is not safe to use (i.e. exposed to fire).	
EP1.4 Fire suppression system		
Sprinkler alarms valves located in basement instead of at ground level. Access door fitted with 'Sprinkler stop valve inside' signs.	If required, firefighters are to access sprinkler room from access door adjacent to main entry.	
EP1.6 Fire brigade facilities		
Fire control room located in basement level instead of at ground level. Access doors fitted with 'Fire control room access' sign.	If required, firefighters are to access FCR via door adjacent to main entry or via foyer area. Building manager will direct second fire officer to FCR.	

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8 Tactical fire plans

8.1 Function

- 8.1.1 TFPs are colour-coded drawings that visually display the installed fire safety systems and other essential features critical to managing a fire or emergency incident. They are intended for firefighter use only and are a component of the ESIP.
- 8.1.2 The FRNSW IC, or their nominated operations officer, will tactically use information from TFPs during operations. It is therefore vital that all TFPs are accurate and kept current at all times, reflecting the actual 'as installed' condition.

8.2 Form and construction

- 8.2.1 Each drawing is to be clearly identified by its title (e.g. within title block, and if needed for clarity, by a heading located in the same position on each drawing).
- 8.2.2 Drawings are to clearly identify the version or revision number, and the date of issue.
- 8.2.3 Drawings are to have an acceptable scale not smaller than 1:200 scale, unless otherwise agreed following consultation.

Note: Site plans which cover a large area may require small scales (not smaller than 1:500 scale).

- 8.2.4 Drawings are to be printed in full colour on heavy stock paper (e.g. 160gsm) then laminated or framed for durability, fade resistance and protection from damage.
- 8.2.5 Depending on scale, drawings should be printed on A2 size paper where possible. Drawings should never be smaller than A3 size and may only be larger than A2 size when being used inside the FCR or FECC (refer to clause 8.2.10(b)).
- 8.2.6 Drawings are to be clear, unambiguous and provide sufficient detail on each system or feature. Any superfluous information should be omitted (e.g. details of fit out, fixtures, equipment, contents, installations, tenancies, measurements etc.).
- 8.2.7 Drawings are to be developed using computer aided design and be consistent with Australian Standards *AS 1100 – Technical Drawing* (suite) and *SAA HB20–1996: Graphical symbols for fire protection drawings*.
- 8.2.8 Drawings are to use standardised symbols, icons and colour-coding (refer to Appendix B).
- 8.2.9 All labels and text on drawings are to be minimum Arial size 14 font.
- 8.2.10 All drawings making a complete set of TFPs are to be provided as follows:
- a) a copy is to be inserted into each ESIP folder, or within a separate folder or roll tube that is kept with each ESIP folder.
 - b) a copy is to be mounted hanging vertically from the wall within a FCR or FECC, or placed on/under a plan layout table of suitable size within that room.

Note: The number of drawings making a complete set will depend on the complexity of the premises and the overlay of required information on each drawing.

8.3 Content of tactical fire plans

8.3.1 TFPs must detail information that may be critical to managing a fire or emergency incident, and should include:

- an overview of the building, facility or site including evacuation
- fire hydrant system including booster, fire pump and ring main
- fire sprinkler system including booster, fire pump and ring main
- other active systems including air-handling, foam, monitors, suppression, detection
- essential utility services including distribution and controls
- hazardous chemicals storages or processes including containment features.

8.3.2 If the overlay of information makes any drawing cluttered and difficult to read, the information is to be logically separated across multiple drawings.

8.3.3 The following drawings are to be provided where appropriate:

- a) a general site plan which includes:
 - location of buildings, structures, amenities and internal roadways
 - site access points and restrictions to vehicular access
 - adjacent properties and/or public roads
 - primary and secondary assembly areas.
- b) a plan view of each building level and/or section view of each building showing:
 - fire/ smoke compartments including fire/smoke doors, duct dampers
 - location of installed fire protection equipment (e.g. fire hydrants, hydrant or sprinkler isolation valves, warden intercom phone).
- c) schematics of installed systems including:
 - fire hydrant system identifying fire brigade booster, fire pump, ring main system (including diameters), isolation valves, water supplies
 - fire sprinkler system identifying fire brigade booster, fire pump, ring main system (including diameters), isolation valves, water supplies
 - air handling system identifying supply and return shafts/ducts, smoke control/exhaust, fire dampers and pressurization fans
 - fire detection, warning, control and intercom systems
 - other active systems such as foam systems, monitors/deluge systems, gas/agent suppression systems etc.
 - essential utilities including power distribution, isolation points/switch rooms, alternative power, substation/transformers, fuel/gas distribution and controls.
- d) an evacuation system plan which includes:
 - floors/areas as identified within the emergency response procedures
 - location of primary and secondary assembly areas
 - means of egress including fire isolated and pressurised stairways, ramps, passageways
 - emergency lifts and lift recall controls
 - refuge areas where occupants may require assisted evacuation.
- e) a copy of any applicable hazardous chemical manifest site plan which is required to be provided as per [Schedule 12](#) of the *WHS Reg.*

Note: Refer to the [Hazardous chemicals manifest](#) technical information sheet which is available at firesafety.fire.nsw.gov.au.

- 8.3.4 Any instructions critical for safe control of a system (e.g. activate, shutdown, isolate, bypass) should be provided on the drawing and headed with the word 'Warning'.
- 8.3.5 Only required exits are to be identified by colour-coding. Non-required stairways and exits should be shown as part of the building outline.
- 8.3.6 Air ducts should not be drawn where they will unnecessarily complicate a drawing. If detectors are located within air ducts, a section of the air duct can be included to help identify the location of the detector being within the duct.

9 Location and identification

- 9.1 The ESIP is to be kept in approved locations readily accessible to FRNSW at all times, including the following where provided:
 - a) at the FCC, either within the cabinet or a wall mounted bracket
 - b) within the FCR, either at the FCC as above or on/under the plan layout table
 - c) within the FECC, on/under the plan layout table
 - d) within an 'emergency information' container if the premises doesn't have an FCC or FECC (refer to hazardous chemicals manifest requirements of section 7.5.2).
- 9.2 A copy of the ESIP is to be provided in other locations as determined by the consent or regulatory authority (e.g. alternate control centre, designated site entry point).
- 9.3 If the ESIP location is not apparent and in clear line of sight, signage is to be provided (e.g. **'EMERGENCY SERVICES INFORMATION PACKAGE (ESIP) INSIDE'**).
- 9.4 Persons should be prompted to return the ESIP to its home location if removed (e.g. a label displaying 'ESIP missing' when ESIP is not stored in-situ).
- 9.5 A copy of the emergency plan and emergency response procedures, as applicable to the occupants of the premises, should be kept with the ESIP.

10 Management

- 10.1 The PCBU should delegate a person responsible for ensuring the ESIP is developed and managed appropriately, including ongoing review and auditing.

Note: The ESIP should be developed by the EPC in conjunction with the emergency plan and emergency response procedures for the premises.
- 10.2 Development of the ESIP should be initiated as early as practicable and be completed and ready for implementation when the premises is to be occupied.
- 10.3 The ESIP should be verified and validated prior to implementation (e.g. drill, simulation test, table top review, emergency services exercise).
- 10.4 The ESIP contents are to be reviewed to ensure it remains current and effective, including routine (e.g. annual) auditing, post emergency review, or whenever changes occur requiring the ESIP be updated (e.g. a system is modified or updated).

11 References

Australian Building Codes Board, *National Construction Code Volume One, Building Code of Australia Class 2 to Class 9 Buildings*, 2016, Canberra ACT, Australia

NSW Planning & Environment, *Hazardous Industry Planning Advisory Paper (HIPAP) No. 1 Emergency Planning*, 2011, available electronically from www.planning.nsw.gov.au

NSW Planning & Environment, *Hazardous Industry Planning Advisory Paper (HIPAP) No. 2 Fire Safety Study Guidelines*, available electronically from www.planning.nsw.gov.au

Standards Australia, *Australian Standard AS 1100 – Technical Drawing (suite)*, Sydney NSW, Australia

Standards Australia, *Australian Standard AS 3745-2010 – Planning for emergencies in facilities*, 2010, Sydney NSW, Australia

Standards Australia, *Australian Standard AS 4083-2010 – Planning for emergencies – Health care facilities*, 2010, Sydney NSW, Australia

Standards Australia, *SAA HB20–1996: Graphical symbols for fire protection drawings*, 1996, Sydney NSW, Australia

Safe Work Australia, *Code of Practice – Managing the work environment and facilities*, available electronically from www.safeworkaustralia.gov.au

Safe Work NSW, *Notification for Schedule 11 hazardous chemicals and abandoned tanks – guidance material*, available electronically from www.safework.nsw.gov.au

Appendix A Abbreviations used in this document

Abbreviation	Description
BLEVE	Boiling liquid expanding vapour explosion
ECO	Emergency control organisation
EICIE	Emergency intercommunication control and indication equipment
EP	Emergency plan
EPC	Emergency planning committee
ERP	Emergency response procedures
ERT	Emergency response team (of premises)
ESIP	Emergency services information package
ESLO	Emergency services liaison officer
EWCIE	Emergency warning control and indication equipment
FBP	Fire brigade panel
FCC	Fire control centre
FCR	Fire control room
FCTL	Fire crew team leader (of premises)
FDCIE	Fire detection control and indication equipment
FEC	Facility emergency controller
FECC	Facility emergency control centre
FFCP	Fire fan control panel
FFs	Firefighters
FIP	Fire indicator panel
FRNSW	Fire and Rescue NSW
IC	Incident controller (FRNSW)
GHS	Globally harmonised system (of classification and labelling of chemicals)
MHF	Major hazard facility
MP	Mimic panel
SHCIE	Special hazard control and indication equipment
TCL	Tactical check list
TFPs	Tactical fire plans
VCE	Vapour cloud explosion
WIP	Warden intercommunication phone











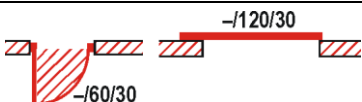
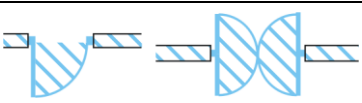

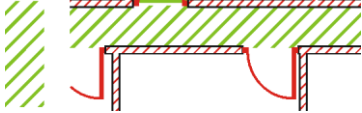






Appendix B Tactical fire plans symbols and colour coding



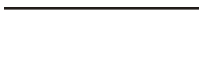










Note: Where available, Australian Standard graphical symbols for fire protection should be used and provided in colour to make it readily visible from all other elements.

Type	Description	Colour	Symbol	
			Plan (top)	Elev. (front)
Hydraulic fire safety system	Fire hydrant booster assembly (typical H-pattern with gate valve, non-return valve four inlets/outlets)	Red		
	Fire hydrant booster assembly (booster cabinet with gate valve, non-return valve and two inlets)	Red		
	Fire hydrant valve (above-ground external with two outlets)	Red		
	Fire hydrant Valve (internal single outlet)	Red		
	Fire hose reel	Red		
	Fire pump	Red		
	Fire sprinkler booster assembly (booster cabinet with two inlets)	Red		
	Fire sprinkler – pendant	Red		
	Fire sprinkler – upright	Red		
	Pipe work – fire hydrant system	Red		
	Pipe work – fire sprinkler system	Red		
	Valve – isolating or control	Red		
	Valve – non-return	Red		
	Water tank	Red		
Detectors and alarms	Detector – flame	Red		
	Detector – smoke	Red		
	Detector – thermal	Red		
	Manual call point	Red		

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Control & indicating equipment	Fire brigade panel	Hatched red	
	Fire detection control and indication equipment (e.g. fire indicator panel)	Hatched pink	
	Emergency warning/intercom control and indication equipment	Hatched blue	
	Mimic panel	Hatched blue	
	Fire fan control panel	Hatched pink	
	Special hazard control and indication equipment	Hatched red on yellow	
	Fire control room (FCR) or facility emergency control centre (FECC)	Red border (room outline)	
	Emergency telephone	Red	
Passive fire safety	Fire rated wall (include fire rating if possible)	Hatched red	
	Smoke compartment	Hatched blue	
	Fire door (include fire rating if possible)	Hatched red	
	Smoke door	Hatched blue	
Evacuation and egress	Fire isolated stairway, ramp or passageway	Green	
	Pressurised stairway, ramp or passageway	Hatched Green	
	Assembly area	Green	
	Refuge area (e.g. disabled pre-evacuation assembly area)	Green	
	Evacuation assist device	Green	
	Escalator emergency stop control	Red	
	Lift emergency recall control	Red	
	Warden intercommunication phone	Blue	

Air handling	Fire Dampers	Red	
	Duct/shaft – supply air	Blue	
	Duct/shaft – return air	White	
	Duct/shaft – smoke exhaust	Yellow	
Electrical	Electrical riser/duct	Orange	
	Switchboard, substation or transformer	Orange	
	Stored power (e.g. batteries, uninterruptible power supply)	Orange	
	Switch room/cupboard	Hatched orange	
Hazardous chemicals	Fuel storage, distribution and controls	Purple (with GHS placard)	
	Gas storage, distribution and controls	Brown (with GHS placard)	
	Hazardous chemical storage, distribution and controls	Yellow (with GHS placard)	
	Special risk area (e.g. laboratories)	Yellow (with GHS placard)	
	Hazardous chemical spill kit	Yellow	

Appendix C Example tactical check list for major hazard facility

TCL no. 4 – Rim seal fire in Tank 12

Contents	Premium unleaded – PUNLP 95	
Tank size	28m (dia.) x 25m (h) – maximum volume 15,300m ³ (5.3M litres)	
Bund size	5,000 m ³ (intermediate bund only)	
Foam system	Automatic operation – 4 outlets @ 18 lpm of 3% AFFF for 20 minutes (360 litres)	
No.	Description of task	Task complete
1	Upon alarm, initiate evacuation of sector 'A' using sector siren and enact emergency response procedures and ECO.	<input type="checkbox"/> _____ Initials _____ am/pm
2	Fire Crew Team Leader (FCTL) confirms foam pourer operation from control centre, and notifies FEC and ESLO.	<input type="checkbox"/> _____ Initials _____ am/pm
3	ESLO calls '000' and confirms type of incident with FRNSW (e.g. rim-fire in tank involving 15 million litres of unleaded petrol).	<input type="checkbox"/> _____ Initials _____ am/pm
4	ESLO goes to gate 'A' and directs the first arriving fire appliance to the FECC, then others to the sector 'A' staging area.	<input type="checkbox"/> _____ Initials _____ am/pm
5	FEC goes to the FECC and confirms evacuation of sector 'A' with Chief warden.	<input type="checkbox"/> _____ Initials _____ am/pm
6	FEC confirms all emergency shutdowns including liquid transfer to tanks 10 and 11 (i.e. transfer valves are in 'isolate' mode).	<input type="checkbox"/> _____ Initials _____ am/pm
7	FEC confirms operating status of main fire pumps and foam pourers are operating within limits (i.e. foam application rate).	<input type="checkbox"/> _____ Initials _____ am/pm
8	FEC hands control to FRNSW IC. FEC must give briefing and notify any casualties or unaccounted persons.	<input type="checkbox"/> _____ Initials _____ am/pm
9	FRNSW rescue teams tasked to conduct sweep area around tank 12 for any casualties or unaccounted persons.	<input type="checkbox"/> _____ Initials _____ am/pm
10	Two pumpers tasked to hydrant booster at gate 'B' for setup and remain in standby mode in case of main fire pump failure.	<input type="checkbox"/> _____ Initials _____ am/pm
11	Operations officer liaises with FCTL on fixed fire systems operation, including control of main fire pump and foam pourers.	<input type="checkbox"/> _____ Initials _____ am/pm
12	Aerial appliance and pumper should be defensively positioned adjacent to tanks 10 and/or 11 if safe to do so.	<input type="checkbox"/> _____ Initials _____ am/pm
13	Monitor tank temperatures using TIC. Tank deluge system activated as required (e.g. tanks 10 & 11 if westerly prevailing wind).	<input type="checkbox"/> _____ Initials _____ am/pm
WARNING – In the event of any escalation in fire beyond the rim seal: Full tank surface fire go to TCL 2 Bund fire go to TCL 6		
14	FEC arranges transport of bulk foam concentrate to fire pump station. If foam level decreases to 15%, commence bulk foam refilling procedure.	<input type="checkbox"/> _____ Initials _____ am/pm
15	When flames are extinguished, FCTL switches foam control panel to 'fire out' mode, decreasing application rate to maintain foam blanket.	<input type="checkbox"/> _____ Initials _____ am/pm
16	Monitor tank for temperature hotspots using thermal cameras. Continue applying foam until temperature stabilisation has been reached.	<input type="checkbox"/> _____ Initials _____ am/pm
17	IC directs FEC to begin recovery operations (e.g. assess site, survey damage, engineering/process integrity check, product transfer).	<input type="checkbox"/> _____ Initials _____ am/pm
18	When site has been declared safe, IC hands formal control of premises back to responsible person (e.g. FEC, investigation team).	<input type="checkbox"/> _____ Initials _____ am/pm

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Appendix D Example tactical check list for high rise building

TCL no. 3 – Fire occurring in Tower C

Description of task	Done
Fire floor will be in automatic 'partial evacuation mode'. Facility supervisor investigates the FDC/E to identify alarm location and nature. Contact floor warden or security if necessary.	<input type="checkbox"/>
Activate the ECO and emergency response procedures. Duty manager assumes chief warden role. Facility supervisor proceeds to foyer and assumes ESLO role.	<input type="checkbox"/>
ESLO meets firefighters and advises of 'fire on floor X' and is being evacuated, then escorts firefighters to the emergency lift or FBP as required by the officer.	<input type="checkbox"/>
First arriving firefighters take emergency lift to commence operations on fire floor. ESLO remains in foyer for second arriving firefighters.	<input type="checkbox"/>
ESLO escorts second arriving fire officer to FCR (or FBP if requested) to assume the role of FRNSW IC. Arriving firefighters are tasked by IC.	<input type="checkbox"/>
Tasks determined by operational requirements	
Casualties or unaccounted persons	
Sector commander tasks FFs to undertake search and rescue	<input type="checkbox"/>
Staging officer deploys additional FFs to fire floor sector commander	<input type="checkbox"/>
Lift rescue crew prioritises emergency lift control for casualty removal. Based on situation, numbers etc. triage may be established near fire floor or down in foyer.	<input type="checkbox"/>
Smoke extension to non-fire areas (e.g. failure of smoke management system)	
Smoke control officer determines rate of smoke exhaust against make-up air for fire floor is balanced to minimise smoke migration, and smoke is discharging at venting point.	<input type="checkbox"/>
Take manual control to override zone smoke control system and remove smoke from fire floor and smoke filled zones.	<input type="checkbox"/>
Seek expertise from building services engineer to identify points of failure (e.g. exhaust fan failure/non-closed damper) and provide advice when manual control is taken.	<input type="checkbox"/>
Fire extension (e.g. failure of sprinkler system)	
Full ICS established – sector commanders established above and below fire floor	<input type="checkbox"/>
ECO directed to implement full staged evacuation – evacuation stairs to be nominated and communicated to floor wardens	<input type="checkbox"/>
IC appoints operations officer to liaise with ECO in the FCR. IC transfers point of control to MCV or duty commander's vehicle outside exclusion zone.	<input type="checkbox"/>
Water supply officer identifies sprinkler and water supply requirements from TFPs and identifies strategies to increase pressure/flow to fire floor/s for operations.	<input type="checkbox"/>
ECO advises access/evacuation officer of any safe refuges/disabled persons requiring evacuation assistance – FFs tasked as required	<input type="checkbox"/>
External fire extension (e.g. facade fire)	
IC initiates an immediate whole of building evacuation – evacuation stairs nominated and communicated to floor wardens.	<input type="checkbox"/>
Exclusion zone around building established safe from falling burning debris.	<input type="checkbox"/>
Access/evacuation officer redirects evacuations to leeward side of building where safe.	<input type="checkbox"/>
Water supply officer prioritises hydraulic input into sprinkler system to minimise internal fire spread. Suppression efforts should be limited to containing fire spread only.	<input type="checkbox"/>

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Appendix E Example tactical check list reference table

TCL reference table

ESIP section	Hazard scenario (i.e. emergency)	TCL no.
A Tank fire	Tank 10 – Fire in main tank	1
	Tank 11 – Fire in main tank (e.g. float roof failure)	2
	Tank 12 – Fire in main tank (e.g. float roof failure)	2
B Rim seal fire	Tank 11 – Rim seal fire around tank float roof	3
	Tank 12 – Rim seal fire around tank float roof	4
C Bund fire	Tank 10 – Tank contents spill and fire in bund	5
	Tank 11 – Tank contents spill and fire in bund	6
	Tank 12 – Tank contents spill and fire in bund	6
D Tank exposure fire	Tank 10 – Fire threat to tank (external fire threat)	7
	Tank 11 – Fire threat to tank (external fire threat)	7
	Tank 12 – Fire threat to tank (external fire threat)	7
E Tank spill	Tank 10 – Tank contents spill into bund, no fire	8
	Tank 11 – Tank contents spill into bund, no fire	9
	Tank 12 – Tank contents spill into bund, no fire	9
F Other liquid spill	Any – Ruptured pipework, uncontained spill	10
	Any – Ruptured pipework, contained spill	11
G Cylinder fire	Cylinder 5 – Fire impinging on cylinder	12
	Cylinder 6 – Fire impinging on cylinder	12
	Cylinder 7 – Fire impinging on cylinder	13
H Gas leak	Cylinder 5 – Gas leak, no fire	14
	Cylinder 6 – Gas leak, no fire	14
	Cylinder 7 – Gas leak, no fire	15
	Any – Ruptured pipework, no fire	15
K Major incident	Any – Gas leak and fire	16
	Catastrophic or multiple tank failure	17
	Catastrophic cylinder failure or gas explosion	17
	Other catastrophic explosion (e.g. terrorism, accident)	18
	Failure of primary fire systems (e.g. ring main failure)	19

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