Defence Explosives Safety Regulatory Framework Principles Structure

Principle Category	Explosives Safety Principles	Rationale (overview)
Safety Management Systems	**P1**- Defence will comply with applicable Explosives and WHS legislation and demonstrate means of compliance in a safety argument.	Defence and the ADF are not excluded from the requirements of the Commonwealth WHS and Explosives legislations. Demonstrating compliance is an integral part of the safety argument that the explosives safety hazard has been eliminate or minimised and risk controls managed so far as is reasonably practicable.
	P2-All capability systems and Defence activities which involve explosives and munitions will be developed, authorised and conducted in accordance with the applicable Capability Manager, Service or Group Safety Management System and Defence Security Principles Framework (DSPF).	In accord with Defence WHS policy, Capability Managers, Service Chiefs and Group Heads have roles and responsibilities for providing safety management systems for the activities they are accountable. The explosives safety hazard will be one of multiple safety hazards associated with activities involving explosives and EO. Those responsible for the activity and/or management of the capability are best placed to develop and implement holistic safety management arrangements which ensure informed decisions are taken that all that is reasonably practicable has been done to minimise harm to workers and others.
	P3-Capability Managers, Service Chiefs and Group Heads safety management systems shall incorporate the ESRF requirements in relation to explosives safety hazards.	Defence SAFETYMAN - WHS Capability Life Cycle policy requires Capability Managers to implement Defence Regulatory Frameworks through a capability safety program including assurance outcomes as defined by these frameworks. Where Capability Managers implement their safety requirements through the Service or Group SMS this extends the implementation responsibility to the SMS.
	P4-Capablility Managers, Service Chiefs and Group Heads, commanders, managers and supervisors shall obtain explosive safety hazard and risk management advice from personnel and organisations competent in explosive safety management.	Knowledge of the consequences and risks associated with explosives events and the explosives safety hazard is a specialised field not generally known by Work Health and Safety practitioners and professionals. To be adequately informed about the hazard and means of elimination or minimisation decision makers need to obtain advice from suitably competent sources.

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EO Materiel	**P5**-Explosives and munitions are designed, manufactured and controlled through life to eliminate or minimise inherent risk of an explosives event so far as is reasonably practicable.	WHS duties applicable to the design and manufacture of substances and equipment are applicable to explosives and munitions. Historic analysis of explosives events have established that explosives safety hazards (see definition in draft DEOP 100 Volume 2 Part 2 Chapter 1) can arise at multiple points in the capability life cycle. Inherent hazards or control weaknesses associated with energetic material formulation, munition design or manufacture may not be realised until the explosives or munitions are subject to an environmental of physical stimuli during the manufacture to disposal or target life cycle.
	P6- The explosives safety hazards and residual risks of explosives and munitions shall be determined and communicated to affected Capability Managers, Services, Groups and others across the capability lifecycle so that risks can be controlled and managed.	Defence SAFETYMAN - WHS Capability Life Cycle policy paragraphs 10.4, 10.5 and 10.6 requirements include; Ensuring clearly defined and agreed milestones or trigger points to pass across, or to receive, work health and safety information and assurance information; Developing a system to communicate (i.e. documenting and transferring) all known work health and safety hazards, work health and safety risk management controls and their associated work health and safety issues are effectively communicated to affected duty holders across the capability life cycle; Ensuring that prior to use, the primary duties of care are satisfied and the appropriate controls have been implemented and communicated to Defence personnel, users, installers, commissioners, maintainers and disposers, ensuring so far as reasonably practicable determinations are made for identified hazards and mitigation controls.

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Location	**P7**- Sites, facilities, platforms and transport routes used for manufacture, storing, handling, maintaining, disposal, testing or training are to be designed, constructed or selected and maintained/monitored to minimise the exposure of explosives and munitions to safety threats and conditions which are reasonably known to deteriorate or render ineffective the inherent explosives safety risk controls.	Historic analysis of explosives events have established that explosives safety hazards (see definition in draft DEOP 100 Volume 2 Part 2 Chapter 1) can arise at multiple points in the capability life cycle. Inherent hazards or control weaknesses associated with energetic material formulation, munition design or manufacture may not be realised until the explosives or munitions are subject to an environmental of physical stimuli during the manufacture to disposal or target life cycle. Reducing the likelihood of an explosives event during manufacture, storage, handling, transport and use can be achieved by protecting the explosives and munitions from these known stimuli.
	P8- Sites, facilities, platforms and transport routes are to be designed, constructed or selected and maintained/monitored to minimise the exposure of workers, others and property from the consequences of an explosives event so far as is reasonably practicable.	Historic analysis of explosives events and national/international explosives stack trials have established understanding of the consequences of explosives events. There are known siting, transport vehicle, facility and platform design and construction approaches which can act to minimised the blast, heat and fragments consequences from an event as well as providing protection for workers, others and property. Maintaining the effectiveness of these controls as facilities age or adjacent activities arise is a necessary part of continuous safety management.
	P9- The explosives safety hazards and residual risks of sites, facilities, platforms and transport routes intended for the manufacture, storage, handling, testing or use of explosives and munitions shall be determined and communicated to affected Capability Managers, Services, Groups and others.	Defence SAFETYMAN requirements include; Ensuring clearly defined and agreed milestones or trigger points to pass across, or to receive, work health and safety information and assurance information; Developing a system to communicate (i.e. documenting and transferring) all known work health and safety hazards, work health and safety risk management controls and their associated work health and safety issues are effectively communicated to affected duty holders across the capability life cycle; Ensuring that prior to use, the primary duties of care are satisfied and the appropriate controls have been implemented and communicated to Defence personnel, users, installers, commissioners, maintainers and disposers, ensuring so far as reasonably practicable determinations are made for identified hazards and mitigation controls.

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Principle Category	Explosives Safety Principles	Rationale (overview)
Work Practices	**P10**- Explosives and munitions are stored, handled, transported, used and disposed of using identified risk controls such that the minimum personnel are exposed to the minimum quantity of explosives for the minimum time.	The inherent explosives safety hazards cannot be eliminated if capability and operational outcomes are to be achieved. Thus the safety management focus shall be to minimise consequences and exposure of personnel should the hazard be realised.
	P11-Explosive events will be responded to and managed so as to preserve life and assets so far as is reasonably practicable.	WHS and Explosives legislation include obligations to prepare for and manage emergencies. The low frequency yet high consequence explosives events necessitate both emergency planning and regular exercising of these plans to ensure the capacity to respond when required.
	P12- Disposal and demilitarisation of explosives and munitions are planned and conducted minimising the consequence of an explosives event and minimising harm to workers, people and property so far as is reasonably practicable.	Disposal and demilitarisation of explosives and munitions typically involve the deliberate removal or weakening of safety risk controls in the munitions and/or packaging. Thus the safety management focus shall be to minimise consequences and exposure of personnel should the hazard be realised.