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REPORT TO MAJOR NIGEL CAPEL

**STANDARDS SETTING BODY IN EXPLOSIVES,
MUNITIONS AND SEARCH OCCUPATIONS¹**

**EXPLOSIVE SUBSTANCES AND ARTICLES NATIONAL
OCCUPATIONAL STANDARDS**

SAFETY MANAGEMENT (ESA KEY ROLE 2)

23 October 2008

¹ 2010 - Sectoral responsibility for these NOS has been transferred to the Cogent Sector Skills Council Ltd (<http://www.cogent-ssc.com>) by the UK Commission for Employment and Skills (www.ukces.org.uk).

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INTRODUCTION

The development and implementation of task-related safety cases is described within each relevant functional area of the National Occupational Standards in Explosive Substances and Articles (eg manufacturing risk assessments are described in the Manufacturing key role, maintenance risk assessments are described in the Maintenance key role etc).

This suite describes the relationship and interface between different elements of an organisation's safety management system for explosives, and is therefore aimed at those with special responsibilities.

These standards are aimed at policy makers and explosives safety managers/advisers.

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Unit 2.1 Formulate national policy for explosive substances and articles

Contexts

- National policy: where no policy exists; where amendments are needed
- Potential impact: safety; environmental; societal; financial; feasibility of the policy

Performance Criteria

You need to:

- work safely at all times, complying with health and safety, environmental and other relevant regulations, legislation and guidelines
- establish the extent to which a relevant national policy currently exists
- identify areas for improvement in the existing national policy
- identify the need for new policy where none currently exists
- recommend changes that address the areas for improvement
- establish the constraints that may influence the policy
- evaluate the potential impact of the proposed policy
- secure commitment from appropriate stakeholders to the proposed policy
- review periodically the extent to which the policy delivers requirements
- confirm that your recommendations and their implications are clearly understood
- publish the policy in the appropriate format

Knowledge Requirements

You need to know and understand:

- the health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives, and their implications for your area of work
- the relevance of personal protective equipment (PPE)
- the nature, characteristics, hazards and risks of the explosive substances and/or articles
- the actions to be taken in response to an unplanned event
- the interface between the explosives safety policy and other relevant safety and environmental policies
- the nature of any constraints (including international requirements)
- best practice in explosives safety management
- the acceptability of risk to society relating to explosives
- key organisations in the explosives industry and the nature of their interest
- the stakeholders and the nature of their interest
- the potential impact of your recommendations
- the role and mechanisms of the consultative process

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Unit 2.2 Determine the classification of explosive substances and/or articles

Contexts

- Applications: with complete information; with incomplete information
- Caveats: when caveats should be applied; when no caveats are needed

Performance Criteria

You need to:

- work safely at all times, complying with health and safety, environmental and other relevant regulations, legislation and guidelines
- identify and gather available information, relevant to the explosive substance or article and its packaging to be classified
- evaluate the accuracy, completeness and validity of the information
- identify the nature and scale of the hazards posed by the explosive substance or article
- ensure that the classification is consistent with the information provided
- specify unambiguously caveats that are proportionate to the hazards
- obtain confirmation of the correctness of your classification
- inform applicants promptly of the classification decision and caveats
- maintain records appropriately

Knowledge Requirements

You need to know and understand:

- the health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives, and their implications for your area of work
- the relevance of personal protective equipment (PPE)
- the nature, characteristics, hazards and risks of the explosive substances and/or articles
- the actions to be taken in response to an unplanned event
- your organisation's classification application process
- the information needed in order to classify explosive substances and articles
- sources of information and relevant guidance
- how to evaluate and validate information
- the hazard assessment process
- packaging characteristics
- the different hazard divisions and compatibility groups and their significance
- when and why caveats should be applied
- the role of peer review
- the documentation requirements
- the importance of documenting your actions and your rationale

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Unit 2.2A Make recommendations for the classification of explosive substances and/or articles

Contexts

- Information: complete; incomplete
- Classifications: new; re-classification

Performance Criteria

You need to:

- work safely at all times, complying with health and safety, environmental and other relevant regulations, legislation and guidelines
- identify and gather information relevant to the explosive substance or article and its packaging
- identify the nature and scale of the hazards posed by the explosive substance or article
- confirm the accuracy and completeness of the information
- ensure that your recommendations for the classification submission are consistent with the information provided
- maintain records in accordance with your organisation's procedures

Knowledge Requirements

You need to know and understand:

- the health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives and their implications for your area of work
- the relevance of personal protective equipment (PPE)
- the nature, characteristics, hazards and risks of the explosive substances and/or articles
- the actions to be taken in response to an unplanned event
- your organisation's classification application process
- the information needed in order to classify explosive substances and articles
- sources of information and relevant guidance
- how to validate information
- the hazard assessment process
- packaging characteristics
- the different hazard divisions and compatibility groups and their significance
- the importance of documenting your actions and your rationale

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Unit 2.3 Review the factors affecting the safety of specific explosive substances and/or articles

Contexts

- Information: complete; incomplete
- Hazards and risks relating to: the complexity of the explosive substance or article; secondary hazards; operational environment; age; condition
- Reviews: planned; unplanned

Performance Criteria

You need to:

- work safely at all times, complying with health and safety, environmental and other relevant regulations, legislation and guidelines
- identify and gather all available information relevant to the safety of the explosive substance and/or article
- evaluate the accuracy, currency, completeness and validity of the information, obtaining further information to fill any gaps
- establish the design, intended use and operation/functioning of the explosive substance and/or article
- establish the intended environments of the explosive substance and/or article throughout its life
- establish the requirements specific to the explosive substance and/or article
- identify hazards and assess risks associated with the environments and/or use of the explosive substance and/or articles
- give your customer timely advice or feedback on developments during the course of your review
- inform your customer promptly of the findings of your review

Knowledge Requirements

You need to know and understand:

- the health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives, and their implications for your area of work
- the relevance of personal protective equipment (PPE)
- the nature, characteristics, hazards and risks of the explosive substances and/or articles
- the actions to be taken in response to an unplanned event
- the safety design requirements of the explosive substance or article
- the potential interface with other equipments/systems that might compromise safety
- the functioning of the explosive substance or article
- the current point in the life of the explosive substance or article (concept, development, in use, etc)
- sources of information and relevant guidance
- how to evaluate and validate information
- the hazard assessment process
- any specific requirements (eg handling, configuration, maintenance, storage, legislative etc)
- the tolerances of the explosive substance or article, in terms of the environment
- your customer and their needs
- your organisation's documentation requirements
- the importance of documenting your actions and your rationale

Note: this standard is relevant to the following areas: design of ESA; test programmes; mitigations, cautions, constraints, restrictions of use, transport, storage or any other functional area; facilities required/requirements; incident management and emergency procedures; changes to ESA policy and/or legislation.

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Unit 2.3A Make recommendations on the factors affecting the safety of specific explosive substances and/or articles

Contexts

- Information: complete; incomplete
- Explosive safety management system: where requirements are met; where requirements are not met
- Reviews: planned; unplanned

Performance Criteria

You need to:

- work safely at all times, complying with health and safety, environmental and other relevant regulations, legislation and guidelines
- identify and gather information relevant to the safety of the explosive substance and/or article
- confirm the accuracy, currency and completeness of the information
- confirm the intended use and operation/functioning of the explosive substance and/or article
- confirm the intended environments of the explosive substance and/or article
- identify hazards and assess risks associated with the environments and/or use of the explosive substance and/or articles
- give timely advice or feedback on explosives safety-related matters
- take appropriate action commensurate with the identified risk
- report your recommendations and actions in the appropriate format

Knowledge Requirements

You need to know and understand:

- the health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives, and their implications for your area of work
- the relevance of personal protective equipment (PPE)
- the nature, characteristics, hazards and risks of the explosive substances and/or articles
- the actions to be taken in response to an unplanned event
- the safety design requirements of the explosive substance or article
- the hazard assessment process
- the potential interface with other equipments/systems that might compromise safety
- the functioning of the explosive substance or article
- the current point in the life of the explosive substance or article (eg shelf life, concept, development, in use, etc)
- any specific requirements (eg handling, configuration, maintenance, storage, legislative, climatic, vibration etc)
- sources of information and relevant guidance
- how validate information
- your organisation's reporting requirements
- the importance of documenting your recommendations, actions and your rationale

Note: this standard is relevant to the following areas: design of ESA; test programmes; mitigations, cautions, constraints, restrictions of use, transport, storage or any other functional area; facilities required/requirements; incident management and emergency procedures; changes to ESA policy and/or legislation.

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Unit 2.4 Analyse the acceptability of safety control measures for specific explosive substances and/or articles

Contexts

- Information: complete; incomplete
- Hazards and risks relating to: the complexity of the explosive substance or article; secondary hazards; operational environment; age; condition
- Assessments: planned; unplanned

Performance Criteria

You need to:

- work safely at all times, complying with health and safety, environmental and other relevant regulations, legislation and guidelines
- establish any discrepancies between the intended and actual environments in which the explosive substance and/or article is exposed to during its life
- ensure that the information provided is current, complete, accurate and valid
- evaluate the risks as presented by the customer against the agreed criteria
- evaluate the customer's proposed mitigation strategies against the agreed risk tolerability criteria
- give your customer feedback on developments, during the course of your assessment
- confirm the acceptability of the proposed safety control measures or make recommendations according to the findings of your analysis
- inform your customer promptly of the findings of your assessment

Note: this standard is relevant to the following areas: design of ESA; test programmes; mitigations, cautions, constraints, restrictions of use, transport, storage or any other functional area; facilities required/requirements; incident management and emergency procedures; changes to ESA policy and/or legislation.

Knowledge Requirements

You need to know and understand:

- the health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives, and their implications for your area of work
- the relevance of personal protective equipment (PPE)
- the nature, characteristics, hazards and risks of the explosive substances and/or articles
- the actions to be taken in response to an unplanned event
- the safety design requirements of the explosive substance or article
- the potential interface with other equipments/systems that might compromise safety
- the functioning of the explosive substance or article
- the current point in the life of the explosive substance or article (concept, development, in use, etc)
- sources of information and relevant guidance
- how to evaluate and validate information
- the hazard assessment process
- any specific requirements (eg handling, configuration, maintenance, storage, legislative, etc)
- the tolerances of the explosive substance or article in terms of the environment
- the agreed criteria against which to carry out your evaluation
- the factors affecting risk tolerability (eg safety, societal, cost, environment, etc)
- how the risk tolerability criteria are established
- the acceptability of the proposed control measures
- the requirements of the organisation's safety management system
- your customer, their level of technical understanding, and their needs
- the importance of documenting your actions and your rationale

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Unit 2.4A Review safety control measures for specific explosive substances and/or articles

Contexts

- Information: complete; incomplete
- Explosive safety management system: where requirements are met; where requirements are not met
- Reviews: planned; unplanned

Performance Criteria

You need to:

- work safely at all times, complying with health and safety, environmental and other relevant regulations, legislation and guidelines
- confirm the currency, completeness and accuracy of the information
- identify the explosive substance or article
- document any discrepancies between the intended and actual environments
- confirm the risks/hazards against the agreed criteria
- make recommendations according to the findings of your review
- give timely advice or feedback on explosives safety-related matters
- take appropriate action commensurate with the identified risk
- report your recommendations and actions in the appropriate format

Note: this standard is relevant to the following areas: design of ESA; test programmes; mitigations, cautions, constraints, restrictions of use, transport, storage or any other functional area; facilities required/requirements; incident management and emergency procedures; changes to ESA policy and/or legislation.

Knowledge Requirements

You need to know and understand:

- the health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives, and their implications for your area of work
- the relevance of personal protective equipment (PPE)
- the nature, characteristics, hazards and risks of the explosive substances and/or articles
- the actions to be taken in response to an unplanned event
- the safety design requirements of the explosive substance or article
- the hazard assessment process
- the potential interface with other equipments/systems that might compromise safety
- the functioning of the explosive substance or article
- the current point in the life of the explosive substance or article (eg shelf life, concept, development, in use, etc)
- any specific requirements (eg handling, configuration, maintenance, storage, legislative, climatic, vibration etc)
- sources of information and relevant guidance
- how to validate information
- the requirements of the organisation's local explosives safety management system
- your customer's level of explosives technical understanding
- the importance of documenting your recommendations, actions and your rationale

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Unit 2.5 Review an organisation's safety management system for explosives

Contexts

- Reviews: with complete information; with incomplete information
- Potential impact: safety; environmental; societal; financial

Performance Criteria

You need to:

- work safely at all times, complying with health and safety, environmental and other relevant regulations, legislation and guidelines
- ensure that the information provided is current, complete, accurate and valid
- establish the extent to which legislative requirements are being met by the safety management system for explosives
- establish any constraints that may influence the organisation's ability to comply with legislation
- evaluate the potential impact of compliance and non-compliance with the relevant explosives-related legislation and policy
- review periodically the extent to which the organisation complies with explosives-related legislation and policy according to the agreed review criteria
- secure commitment from appropriate stakeholders to the need for and value of your review of the safety management system for explosives
- identify and prioritise areas for improvement
- highlight areas where the minimum requirements are exceeded
- make recommendations for change to address identified needs

Knowledge Requirements

You need to know and understand:

- the health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives, and their implications for your area of work
- the relevance of personal protective equipment (PPE)
- the nature, characteristics, hazards and risks of the explosive substances and/or articles
- the actions to be taken in response to an unplanned event
- the purpose of the safety management system for explosives and how it interfaces with the safety management system as a whole
- the relationship of the safety management system for explosives with those of others
- the constraints under which the organisation is working
- the information needed to carry out the review
- how to validate the information provided
- evaluation techniques (eg audit tables, cost-benefit analysis, etc)
- the stakeholders and the nature of their interest
- the requirements of the agreed review criteria
- the importance of documenting your actions and your rationale

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Unit 2.5A Assess an explosives safety management system

Contexts

- Assessments: planned; unplanned
- Information: complete; incomplete
- Explosives safety management system: where requirements are met; where requirements are not met

Performance Criteria

You need to:

- work safely at all times, complying with health and safety, environmental and other relevant regulations, legislation and guidelines
- ensure that the information provided is current, complete and accurate
- establish the extent to which explosives safety management system requirements are being met against the agreed criteria
- establish any constraints that may influence the ability to comply fully with the explosives safety management system
- assess the potential impact of compliance and non-compliance with the explosives-related safety management system
- identify and record instances of best practice
- identify areas for improvement and make practicable recommendations to address these
- take appropriate action commensurate with identified non-compliance
- give timely advice or feedback on your assessment
- report the outcome of your assessment in the appropriate format

Knowledge Requirements

You need to know and understand:

- the health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives and their implications for your area of work
- the relevance of personal protective equipment (PPE)
- the nature, characteristics, hazards and risks of the explosive substances and/or articles
- the actions to be taken in response to an unplanned event
- the purpose of the explosives safety management system
- the information needed to carry out the assessment
- how to validate the information provided
- the criteria against which to make your assessment
- the importance of documenting your recommendations, actions and your rationale

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Unit 2.6 Develop the organisational safety policy and/or strategy for explosives

Contexts

- Explosive safety policy or strategy: where no policy or strategy exists; where amendments are needed
- Impact on the business: business processes/products; management structure/arrangements; financial implications; licensing arrangements

Performance Criteria

You need to:

- work safely at all times, complying with health and safety, environmental and other relevant regulations, legislation and guidelines
- establish the extent to which your organisation currently meets statutory and its own requirements and best practice
- identify areas for improvements in the current explosives safety policy or strategy of your organisation
- recommend changes that address the areas for improvements in the explosives safety policy or strategy of your organisation
- establish the constraints which may influence the explosives safety policy or strategy of your organisation
- evaluate the potential impact of the proposed policy or strategy on the business
- secure commitment to your proposed explosives policy or strategy from your key stakeholders
- review periodically the extent to which the policy or strategy delivers requirements
- confirm that your recommendations and their implications are clearly understood
- ensure that your recommendations address the customer's requirements and the degree of risk

Knowledge Requirements

You need to know and understand:

- the health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives, and their implications for your area of work
- the relevance of personal protective equipment (PPE)
- the nature, characteristics, hazards and risks of the explosive substances and/or articles
- the actions to be taken in response to an unplanned event
- the purpose of the safety management system for explosives and how it interfaces with the safety management system as a whole
- the relationship of the safety management system for explosives with those of others
- best practice in explosives safety management
- your organisation's explosives-related business objectives and activities
- your organisation's explosives-related structure and systems
- the nature of any constraints
- the stakeholders and the nature of their interest
- the potential impact of your recommendations
- the role of peer review

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Unit 2.7 Implement the organisational safety policy and/or strategy for explosives

Contexts

- Approval and commitment: where there is commitment; where resistance to change is encountered
- Resources: fully equipped; with limited resources; from other organisations

Performance Criteria

You need to:

- work safely at all times, complying with health and safety, environmental and other relevant regulations, legislation and guidelines
- draw up a clear implementation plan which specifies objectives, method, allocated resources, budget and timescale
- obtain approval and commitment to your proposed or amended implementation plans
- implement the plan within the agreed timescale and resources
- amend the plan in the light of changing circumstances or information
- provide advice that addresses the customer's requirements and the degree of risk
- confirm that your advice and its implications have been understood
- evaluate the effectiveness of the implementation, making practical recommendations for future use

Knowledge Requirements

You need to know and understand:

- the health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives, and their implications for your area of work
- the relevance of personal protective equipment (PPE)
- the nature, characteristics, hazards and risks of the explosive substances and/or articles
- the actions to be taken in response to an unplanned event
- the purpose of the safety management system for explosives and how it interfaces with the safety management system as a whole
- the relationship of the safety management system for explosives with those of others
- best practice in safety management for explosives
- your organisation's explosives-related business objectives and activities
- your organisation's explosives-related structure and systems
- the way in which any constraints affect you
- the stakeholders and the nature of their interest
- the timescale for implementation
- your available resources and any constraints attached to them
- the competence of the personnel involved
- planning techniques

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Unit 2.8 Analyse and identify aggregated hazards and risks for explosives

Contexts

- Hazards and risks caused: by the complexity of the activity; to the explosive; from the explosive
- Hazards and risk: high negative consequence; low negative consequence

Performance Criteria

You need to:

- work safely at all times, complying with health and safety, environmental and other relevant regulations, legislation and guidelines
- ensure that all the information is current, complete and accurate
- validate the separate risk assessments
- determine whether there are interactions between the individual risks
- evaluate the potential safety consequences of identified interactions
- ensure that all hazards have been identified
- obtain any necessary approval to your analysis
- report your findings in the appropriate format in accordance with organisational procedures
- maintain the documentation requirements

Knowledge Requirements

You need to know and understand:

- the health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives, and their implications for your area of work
- the relevance of personal protective equipment (PPE)
- the nature, characteristics, hazards and risks of the explosive substances and/or articles
- the actions to be taken in response to an unplanned event
- the safety management system for explosives
- your organisation's explosives-related business objectives and activities
- your organisation's explosives-related structure and systems
- information sources and documentation that pertain to the explosive substance and/or article and the relevant risk assessment(s)
- the hazard and risk assessment priorities
- your available resources and any constraints attached to them
- the competence of the personnel involved
- hazard identification and analysis techniques
- risk assessment techniques
- the role of peer review
- the importance of documenting your actions and rationale

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Unit 2.8A Assess the suitability of explosives facilities

Contexts

- Information: complete; incomplete
- Fitness for purpose: suitable; not suitable
- Facilities: proposed/new; change of requirements

Performance Criteria

You need to:

- work safely at all times, complying with health and safety, environmental and other relevant regulations, legislation and guidelines
- confirm the currency, completeness and accuracy of information
- ensure that all identified hazards and risks have been recorded
- evaluate the suitability of the facilities against the agreed criteria
- obtain the necessary approval to your assessment
- report your findings in the appropriate format in accordance with organisational procedures

Knowledge Requirements

You need to know and understand:

- the health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives, and their implications for your area of work
- the relevance of personal protective equipment (PPE)
- the nature, characteristics, hazards and risks of the explosive substances and/or articles
- the actions to be taken in response to an unplanned event
- the organisation's explosives-related activities relevant to the facility
- what might constitute a hazard
- how to apply risk assessment criteria
- the importance of documenting your assessment and rationale

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Unit 2.9 Determine and implement aggregated risk control measures for explosives

Contexts

- Approval and commitment: where there is commitment; where resistance to change is encountered
- Hazards and risks caused: by the complexity of the activity; to the explosive; from the explosive
- Resources: fully equipped; with limited resources; from other organisations

Performance Criteria

You need to:

- work safely at all times, complying with health and safety, environmental and other relevant regulations, legislation and guidelines
- select the risk control measure(s) that best meet your organisation's priorities and objectives
- draw up a clear implementation plan which specifies objectives, method, allocated resources, budget and timescale
- obtain approval and commitment to your proposed or amended implementation plans
- implement the plan, within the agreed timescale and resources
- amend the plan in the light of changing circumstances or information
- provide advice that addresses the customer's requirements and the degree of risk
- confirm that your advice and its implications have been understood
- evaluate the effectiveness of the implementation, making practical recommendations for future use
- obtain authorisation as a result of your implementation measures when appropriate
- maintain the appropriate documentation correctly

Knowledge Requirements

You need to know and understand:

- the health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives, and their implications for your area of work
- the relevance of personal protective equipment (PPE)
- the nature, characteristics, hazards and risks of the explosive substances and/or articles
- the actions to be taken in response to an unplanned event
- the safety management system for explosives
- your organisation's explosives-related business objectives and activities
- your organisation's explosives-related structure and systems
- the results of the aggregated risk analysis and the basis on which it has been derived
- the risk control priorities
- your available resources and any constraints attached to them
- the timescale for completion
- the competence of the personnel involved
- the range of mitigatory measures that are available and their respective advantages and disadvantages
- the stakeholders and the nature of their interest
- planning techniques
- the role of peer review
- the documentation requirements

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Unit 2.9A Implement risk control measures for explosive substances and/or articles safety

Contexts

- Resources: fully equipped; with limited resources
- Contribution: individually; collaboratively
- Risk control measures: planned; unplanned
- Explosives safety system: facilities; people

Performance Criteria

You need to:

- a work safely at all times, complying with health and safety, environmental and other relevant regulations, legislation and guidelines
- b implement your responsibilities to the agreed timescale and resource constraints
- c implement control measures that are commensurate with identified risk
- d recommend amendments to the plan in the light of changing circumstances or information
- e take appropriate action commensurate with identified risks
- f give timely advice or feedback on explosives safety-related matters
- g make practicable recommendations for improvement
- h report your recommendations in the appropriate format

Knowledge Requirements

You need to know and understand:

- i the health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives, and their implications for your area of work
- ii the relevance of personal protective equipment (PPE)
- iii the nature, characteristics, hazards and risks of the explosive substances and/or articles
- iv the actions to be taken in response to an unplanned event
- v the purpose of the explosives safety management system
- vi best practice in explosives safety management
- vii your organisation's explosives-related business objectives and activities relevant to the risk control measures
- viii your organisation's explosives-related structure and systems
- ix the way in which any constraints affect you
- x your level of authority
- xi the competence of the personnel affected by the risk control measures for explosives

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Unit 2.10 Develop and implement assurance systems for explosives safety

Contexts

- Approval and commitment: where there is commitment; where resistance to change is encountered
- Hazards and risks caused: by the complexity of the activity; to the explosive; from the explosive
- Resources: fully equipped; with limited resources; from other organisations

Performance Criteria

You need to:

- work safely at all times, complying with health and safety, environmental and other relevant regulations, legislation and guidelines
- draw up a documented assurance plan, which specifies objectives, method, allocated resources, and addresses the identified priorities
- set appropriate key performance indicators
- document your rationale for your assurance plan
- obtain approval and commitment to your proposed or amended assurance plan
- implement the assurance plan within the specified timescale
- respond to developing events and priorities, in accordance with procedures
- resolve any inconsistencies in the assurance plan
- review periodically the extent to which the assurance plan delivers requirements
- use feedback to recommend improvements to the safety management system
- confirm that the systems in place meet regulatory requirements

Knowledge Requirements

You need to know and understand:

- the health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives, and their implications for your area of work
- the relevance of personal protective equipment (PPE)
- the nature, characteristics, hazards and risks of the explosive substances and/or articles
- the actions to be taken in response to an unplanned event
- the purpose of the safety management system for explosives and how it interfaces with the safety management system as a whole
- the relationship of the safety management system for explosives with those of others
- what should be included in the explosives assurance plan (ie monitoring, audit or review)
- your organisation's explosives-related business objectives and activities
- your organisation's explosives-related structure and systems
- the risk control priorities
- your available resources and any constraints attached to them
- the competence of the personnel involved
- the stakeholders and the nature of their interest
- planning and analysis techniques
- the different features of monitoring, audit and review and how they interface
- the requirements of the assurance process you are carrying out (ie monitoring or audit or review)
- the importance of documenting your actions and your rationale in accordance with your organisation's procedures

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Unit 2.10A Carry out assurance audit of systems for explosives safety

Contexts

- Resources: fully equipped; with limited resources
- Contribution: individually; collaboratively
- Explosives safety system: facilities; people; processes; documentation

Performance Criteria

You need to:

- work safely at all times, complying with health and safety, environmental and other relevant regulations, legislation and guidelines
- implement your responsibilities within the plan to the agreed timescale and within resource constraints
- recommend amendments to the plan in the light of changing circumstances or information
- investigate any non-compliance and unresolved discrepancies, prioritising them in an order commensurate with the degree of risk
- take appropriate action commensurate with identified non-compliance
- give timely advice or feedback on explosives safety-related matters
- make practicable recommendations for improvement
- report your recommendations in the appropriate format

Knowledge Requirements

You need to know and understand:

- the health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives, and their implications for your area of work
- the relevance of personal protective equipment (PPE)
- the nature, characteristics, hazards and risks of the explosive substances and/or articles
- the actions to be taken in response to an unplanned event
- the purpose of the explosives safety management system
- best practice in explosives safety management
- the organisation's explosives-related business objectives and activities relevant to your area of work
- the organisation's explosives-related structure and systems
- the way in which any constraints affect the audit
- the competence of the personnel affected by the assurance systems for explosives

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Unit 2.11 Develop emergency response systems and procedures for explosives safety

Contexts

- Emergencies: explosives incident; fire; critical equipment failure; breach of safety area; unintended release
- Explosives effects: contained within your own boundaries; beyond your own boundaries

Performance Criteria

You need to:

- work safely at all times, complying with health and safety, environmental and other relevant regulations, legislation and guidelines
- establish the scope and parameters of the emergency response system for explosives, ensuring that it is consistent with the level of risk
- establish the compatibility of your emergency response systems with that of the emergency services
- ensure the fitness for purpose of your response plan, amending it in the light of feedback obtained
- document coherent explosives procedures that are consistent with your organisation's overall emergency response plans
- obtain approval to your emergency response plan
- communicate the emergency response system effectively to stakeholders

Knowledge Requirements

You need to know and understand:

- the health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives, and their implications for your area of work
- the relevance of personal protective equipment (PPE)
- the nature, characteristics, hazards and risks of the explosive substances and/or articles
- the actions to be taken in response to an unplanned event
- the safety management system for explosives
- what should be included in your emergency response system for explosives
- your organisation's overall emergency response plan
- how to test the effectiveness of your explosives emergency procedures
- your organisation's explosives-related business activities
- your organisation's explosives-related structure and systems
- the emergency response priorities
- who or what beyond your boundaries might be affected by an emergency
- how and why external events might affect you
- your available resources and any constraints attached to them
- the competence of the personnel involved
- your own level of authority and that of others you work with
- the stakeholders and the nature of their interest
- planning techniques
- the emergency services' response plans
- the importance of documenting your actions and your rationale

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Unit 2.12 Investigate explosives-related safety incidents

Contexts

- Those involved: management; colleagues; design authority; witnesses; experts
- Scope of the investigation: individually; collaboratively with internal colleagues; collaboratively with external bodies

Performance Criteria

You need to:

- work safely at all times, complying with health and safety, environmental and other relevant regulations, legislation and guidelines
- implement an appropriate investigation plan in accordance with your organisation's procedures
- interview those involved in or affected by the incident in accordance with the plan
- use effective interview and evidence-gathering techniques
- substantiate your conclusions on a sound analysis of the available evidence
- establish the potential root causes of the incident
- make recommendations for future improvements
- report the results of your investigation in the appropriate format through the appropriate channels

Knowledge Requirements

You need to know and understand:

- the health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives, and their implications for your area of work
- the relevance of personal protective equipment (PPE)
- the nature, characteristics, hazards and risks of the explosive substances and/or articles
- the actions to be taken in response to an unplanned event
- the purpose of the safety management system for explosives and how it interfaces with the safety management system as a whole
- the relationship of the safety management system for explosives with those of others
- best practice in explosives safety management
- your organisation's investigation procedures
- the organisation's explosives-related activities
- the organisation's explosives-related structure and systems
- the competence of the personnel involved
- sources of information that might inform your investigation and how to access them
- the process being operated when the incident occurred and any constraints attached to that process
- the stakeholders and the nature of their interest
- the potential effects of the incident
- the potential impact of the incident on the business
- incident investigation and analysis techniques
- your own level of authority and that of others you work with
- reporting lines and procedures

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Unit 2.12A Contribute to the investigation of explosives safety incidents

Contexts

- Those involved: management; colleagues; witnesses; experts
- Scope of the investigation: individually; collaboratively

Performance Criteria

You need to:

- work safely at all times, complying with health and safety, environmental and other relevant regulations, legislation and guidelines
- implement your responsibilities in accordance with the investigation plan
- identify those people who should be interviewed in accordance with the investigation plan
- interview those involved in or affected by the incident in accordance with the plan and your organisation's procedures
- obtain valid information and evidence in accordance with the plan and your organisation's procedures
- substantiate your findings from an objective analysis of the available evidence
- establish the likely root cause(s) of the incident in accordance with your role in the investigation plan
- make practicable recommendations for improvement
- report the results of your investigation in the appropriate format

Knowledge Requirements

You need to know and understand:

- the health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing explosives and their implications for your area of work
- the relevance of personal protective equipment (PPE)
- the nature, characteristics, hazards and risks of the explosive substances and/or articles
- the actions to be taken in response to an unplanned event
- the purpose of the safety management system for explosive substances and/or articles
- best practice in explosives safety management
- the relevance of any explosives-related activities and how these might affect the incident
- the organisation's explosives-related structure and systems relevant to the investigation
- the competence of the personnel involved in the incident
- sources of information that might inform your investigation and how to access them
- the process being operated when the incident occurred
- the potential effects of the incident
- reporting lines and procedures

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Unit 2.13 Assess explosives licence applications

Contexts

- Licences: granting; withdrawal; amendment
- Applications: straightforward; not straightforward

Performance Criteria

You need to:

- work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines
- confirm that the information to support the application is complete
- confirm the acceptability of the separation distances to all exposed sites
- obtain confirmation from experts that the facility is fit for purpose
- impose appropriate conditions and/or caveats
- ensure that your assessments are based on an analysis of the available information
- recommend granting, withdrawal or amending the licence according to your organisation's procedures
- document your decisions according to your organisation's requirements
- obtain appropriate approval to your submission

Knowledge Requirements

You need to know and understand:

- the health, safety and environmental and other statutory legislation, regulations, safe working practices and procedures governing explosives, and their implications for your area of work
- the relevance of personal protective equipment (PPE)
- the nature, characteristics, hazards and risks of the explosive substance and/or article
- the actions to be taken in response to an unplanned event
- your own licensing authority's policy and procedure
- the applicant organisation's business objectives and modus operandi
- the purposes of the explosives facility
- the purpose of safeguarding
- when to refer the application to another licensing authority
- the licensing criteria
- when and why it might be appropriate to impose conditions and/or caveats or amend or withdraw the licence
- the sanctions available to your licensing authority
- when and why it might be appropriate to consult local authorities
- your level of authority in granting, amending or withdrawing the licence

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Unit 2.14 Prepare and submit an explosives licence application

Contexts

- Applications: straightforward; not straightforward; amended

Performance Criteria

You need to:

- a work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines
- b confirm the uses of the facility and its associated explosives-related hazards
- c confirm the appropriate plant, equipment and facility layout requirement
- d confirm siting options and identify the optimum
- e consult relevant local authorities and the licensing authority
- f ensure that your application is complete and presented in the appropriate format, and addresses the licensing authority's requirements
- g represent your organisation at any public enquiries
- h respond promptly and fully to any queries about the application
- i submit an appropriate safeguarding map when requested

Knowledge Requirements

You need to know and understand:

- i the health, safety and environmental and other statutory legislation, regulations, safe working practices and procedures governing explosives, and their implications for your area of work
- ii the relevance of personal protective equipment (PPE)
- iii the nature, characteristics, hazards and risks of the explosive substance and/or article
- iv the actions to be taken in response to an unplanned event
- v the licensing authority's policy and procedure
- vi your organisation's business objectives and modus operandi
- vii the purposes of the explosives facility
- viii the purpose of safeguarding
- ix the licensing criteria
- x when and why it might be appropriate to consult local authorities
- xi your level of authority in preparing and submitting the licence
- xii the licensing process and timetable

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