

## Design the explosive display

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### Overview

This standard covers the competences you need to design a safe and effective display involving the use of explosives. You are required to have the knowledge, skills and understanding necessary to design a safe and effective display involving explosives, at the same time ensuring that your designs facilitate and encourage compliance with all legal, statutory, industrial and organizational requirements. You must be able to identify any potential hazards and risks to health and safety inherent in your design. You must also know what actions would need to be taken in case of an emergency at each display designed, as well as ensuring that your designs take account of the safety of all those mounting or attending these displays. You will be required to work to the relevant legislation, regulatory requirements and organizational policy, and to follow applicable industry codes of practice and instructions.

Your responsibilities will require you to comply with health and safety requirements and organizational policy and procedures for the design work that is undertaken. You must be able to recognize any limitations in your own competence in this work, and ask for appropriate help and advice in when it is needed. You may work with little or no supervision, therefore taking responsibility for your own actions and for the quality and accuracy of the work that you carry out.

Your underpinning knowledge will provide an understanding of your design work, in order to apply safely the appropriate principles and practices. You will be competent in the safe use of the materials, equipment, consumables and instruments associated with your work, and with the procedures appropriate to your job, and will be familiar with, and understand, the safe and effective use of the materials, equipment, consumables and instruments used in mounting explosives displays. Your depth of knowledge will be sufficient to provide a sound basis for designing a safe and effective explosive display that meets both customer requirements and the imperatives of health and safety.

You will understand the safety precautions required when mounting explosive displays and will apply these to your design work. You will also understand your responsibility to others for incorporating the necessary safeguards to protect them in the locations in which the displays that you have designed take place.

This activity is likely to be undertaken by someone whose work role involves Weapons, Ordnance, Munitions or Explosives work activities. This includes people working as explosives entertainment supervisors.

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### Performance criteria

- You must be able to:*
- P1 work safely at all times, complying with health, safety and environmental and other relevant regulations, legislation and guidelines
  - P2 identify the factors applicable to the design of the explosive display
  - P3 validate the information
  - P4 design the display within technical and safety constraints
  - P5 determine the hazards inherent in your design
  - P6 develop a plan, complete with specified resources, allocated responsibilities and timetable
  - P7 identify risk controls and develop a safe system of work
  - P8 develop contingency plans that are capable of addressing changing situations
  - P9 ensure that your design is developed within the timescale and resource constraints
  - P10 record the design in the appropriate format

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**Knowledge and understanding**

- You need to know and understand:*
- K1 health, safety and environmental legislation, regulations and safe working practices governing explosives in your area of work
  - K2 the relevance of PPE
  - K3 the nature, characteristics, hazards and risks of the explosive substance and/or article
  - K4 the actions to be taken in response to an unplanned event
  - K5 the initiation of the explosive substances and/or articles being used
  - K6 your customer's requirements and expectations
  - K7 the requirements of any relevant industry standards and codes of practice
  - K8 the duration of the display, the available resources and any constraints attached
  - K9 the proposed location, environment and any associated constraints
  - K10 how the factors affect the design
  - K11 sources of information
  - K12 the importance of evaluating previous designs, devices and materials
  - K13 the roles, responsibilities and authorities of those involved
  - K14 when and to whom to refer matters beyond your authority or competence

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**Scope/range**

- 1 Factors affecting the design: secondary hazards; negative environmental consequences; resources
- 2 Nature of display: single phase; single explosive device/delivery system
- 3 Information: complete; incomplete; correct; incorrect

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