

Design the complex explosive display

Overview

This standard covers the competences you need to design a safe and effective complex display involving the use of explosives. You are required to have the knowledge, skills and understanding necessary to design a safe and effective

complex 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 complex explosives displays. Your depth of knowledge will be sufficient to provide a sound basis for designing a safe and effective complex explosive display that meets both customer requirements and the imperatives of health and safety.

You will understand the safety precautions required when mounting complex 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 complex explosive 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 managers.

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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 validate the information
 - P3 identify the factors applicable to the design of the explosive display
 - 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 budget
 - 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 budget 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 approval to your design is necessary

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Scope/range

The numbers of scope items specified (below) indicate the minimum requirements for this Occupational Standard.

You must take full account of all the following:

- 1 the factors affecting the design: spatial constraints; secondary hazards; negative environmental consequences; resources
- 2 the nature of display: moving people; inter-related phases; combination of explosives/delivery systems
- 3 the information available: complete; incomplete; correct; incorrect

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Developed by	Cogent
Version Number	2
Date Approved	November 2017
Indicative Review Date	November 2020
Validity	Current
Status	Original
Originating Organisation	SEMTA
Original URN	Unit 10.12
Relevant Occupations	Science and mathematics Science; Science; Engineering; Science and Engineering Technicians; Process, Plant and Machine Operatives
Suite	Explosive Substances and Articles
Keywords	Design, safe, effective, complex, legal, statutory, industrial and organisational requirements, hazards, risks, health and safety, materials, equipment, consumables and instruments, explosives, substances