

Carry out small scale processing

Overview

This standard covers the competences you need to carry out small scale processing in a science related work activity in accordance with approved procedures and practices.

You will be required to demonstrate that you can select and produce appropriate small quantities required against specification in accordance with the relevant workplace procedures.

The activity is likely to be undertaken by someone in a science related work setting, including individuals working in hospitals, scientific laboratories, schools and universities.

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Performance criteria

- You must be able to:*
- P1 ensure that your work is carried out in accordance with workplace procedures
 - P2 use safe practices and the appropriate personal protection equipment (PPE) when performing scientific or technical activities
 - P3 set the conditions for small scale processing and take the appropriate action to maintain them
 - P4 confirm the calibration status of equipment and prepare it correctly for the processing operation
 - P5 produce small scale quantities required against specification
 - P6 maintain the specified controlled conditions for processing and record required information
 - P7 take specified action in the event of abnormal occurrences and report them to the relevant people
 - P8 communicate the required information about the work done, in accordance with departmental and organisational procedures

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Knowledge and understanding

- You need to know and understand:*
- K1 the health and safety requirements of the area in which you are carrying out the scientific or technical activities
 - K2 the implications of not taking account of legislation, regulations, standards and guidelines when conducting scientific or technical activities
 - K3 the scientific or technical techniques and processes you must use correctly in the workplace
 - K4 the importance of wearing protective clothing, gloves and eye protection for scientific or technical activities
 - K5 the importance of correct identification, and any unique workplace coding system
 - K6 the organisational requirements for maintaining the security of the workplace
 - K7 the lines of communication and responsibilities in your department, and their links with the rest of the organisation
 - K8 the limits of your own authority and to whom you should report if you have problems that you cannot resolve
 - K9 the principles and procedures for small scale processing
 - K10 the essential features of a process plan and how to follow it
 - K11 how to source and access relevant standards
 - K12 the operating conditions that are necessary to conduct the small scale processing, and how to maintain them
 - K13 why it is important to follow set procedures
 - K14 the range of equipment used for small scale processing
 - K15 why it is important to follow the correct data recording and reporting procedures
 - K16 the methods that can be used for dealing with the handling, storage and disposal of materials
 - K17 the cleaning materials and methods that should be used
 - K18 the range of resources needed for small scale processing
 - K19 the reporting procedure in the event of deviations from processing plans
 - K20 the document control and reporting procedures that should be used
 - K21 the reasons why effective communication is important, and the methods used for communicating effectively

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Scope/range

1. produce small scale processing qualifies for one of the following:
 - 1.1 testing the viability of a proposed large-scale manufacturing method
 - 1.2 meeting a customer's requirements for a specialist product not required in any great quantity
 - 1.3 producing small quantities of products to be used in sampling
 - 1.4 testing or other investigations such as reference standards or design evaluation

2. maintain two of the following controlled conditions during processing:
 - 2.1 health and safety
 - 2.2 allotted time
 - 2.3 cleanliness & hygiene
 - 2.4 environment
 - 2.5 recording systems

3. record all of the following processing information:
 - 3.1 sample identification
 - 3.2 results of small scale processing
 - 3.3 calculations and data
 - 3.4 conditions of in-process test

4. record and communicate details of work done, to the appropriate people, using:
 - 4.1 verbal report plus one method from the following:
 - 4.2 written or typed report
 - 4.3 computer-based record
 - 4.4 specific workplace documentation
 - 4.5 electronic mail

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