

### Overview

This unit covers the skills and knowledge you will need to carry out processing operations on materials or products which involves using a pre-defined sequence of events that either furthers the process and / or changes the physical appearance or properties of the material or product. Examples of this could be heat treatment, photo process operations, distillation, mixing of materials -----etc.

This will involve carrying out the processing operations according to defined operating procedures. You will be expected to monitor the processing operation, ensuring that the processed materials or products are to the required specification. Meeting production targets will be an important issue and your production records must show consistent and satisfactory performance.

Your responsibilities will require you to comply with organisational policy and procedures for the processing activities undertaken, and to report any problems with the processing activities to the appropriate people. You will be expected to work to instructions, taking personal responsibility for your actions and the quality and accuracy of the work that you produce. You will also be expected to complete any necessary documentation.

Your underpinning knowledge will be sufficient to provide a sound basis for your work, and to adopt an informed approach to applying the required work instructions and processing procedures. You will have an understanding of the process used, and its application, and will know about the equipment, materials and consumables in adequate depth to provide a sound background for carrying out the activities to the required specification.

You will understand the safety precautions required when working with the processing equipment. You will be required to demonstrate safe working practices throughout, and will understand the responsibility you owe to yourself and others in the workplace.

This unit on material processing involves:

1. using the correct equipment for the processing operation
2. carrying out the processing operation
3. monitoring the processing operation
4. reporting problems to the relevant person
5. completing any necessary documentation
6. working in ways which maintain the safety of yourself and others

# SEMPMO111 - SQA Unit Code H03V 04

## Carrying out processing operations

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### Performance criteria

*You must be able to:*

- P1 work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines
- P2 make sure you have the correct job instructions and any relevant processing procedure and quality specifications
- P3 follow the pre-defined sequence of operations at all times
- P4 carry out the processing operation according to instructions and safe operating procedures
- P5 monitor the processing operation and identify any problems that occur
- P6 report any problems immediately to the appropriate person
- P7 produce processed products which comply with the process specification and quality requirements
- P8 work to achieve your production targets
- P9 deal appropriately with finished products and complete any necessary documentation

### Knowledge and understanding

*You need to know and understand:*

- K1 what are the relevant health and safety requirements of the work area in which you are carrying out the processing operations
- K2 what are the specific safe working practices, processing procedures and environmental regulations that need to be observed
- K3 what are the hazards associated with carrying out the processing operations
- K4 what actions need to be taken in case of emergencies
- K5 what personal protective equipment needs to be used during the processing activities and where can it be obtained
- K6 how to make sure you have the necessary job instructions, equipment operating procedures and processing specifications that are used
- K7 what tools and equipment are used for the processing operations undertaken and how to check that they are in a safe and usable condition
- K8 what are the specific processing operations to be performed
- K9 why you must follow the pre-determined sequence of operations at all times
- K10 what are the consequences of not following the correct sequence of operations
- K11 how to operate the processing equipment to achieve the required specification
- K12 what problems can occur in the processing operation, how to identify them and who to report them to
- K13 why it is important to report problems immediately
- K14 how to check the quality of the processing operations, against the required quality standards
- K15 what documentation may need to be completed
- K16 what your responsibilities are with regard to the reporting lines and procedures in your working area
- K17 who are the appropriate people and what are their responsibilities within your working area

### Additional Information

#### Scope/range related to performance criteria

You must be able to:

1. Follow the relevant processing procedures and safety requirements to include **all** of the following:
  - 1.1. health and safety regulations
  - 1.2. processing equipment / tool operating instructions
  - 1.3. safe working practices
  - 1.4. company standards and procedures
  - 1.5. job instructions
  
2. Carry out processing operations using **one** of the following methods:
  - 2.1. hand operated processing operations
  - 2.2. manually controlled machine processing operations
  - 2.3. fully automated processing operations
  - 2.4. combined processing operations
  
3. Carry out checks of the processed products to include the following:
  - 3.1. completeness of processing operations and **one** other check from the following:
    - 3.2. appearance of finished product (such as colour, mix, consistency)
    - 3.3. taking samples for analysis
    - 3.4. freedom from contamination
    - 3.5. correct quantity
    - 3.6. correct volume
  
4. Report problems to the appropriate person to include **one** of the following:
  - 4.1. supervisor
  - 4.2. team leader
  - 4.3. quality control
  
5. Work to achieve production targets for **both** of the following:
  - 5.1. output
  - 5.2. quality

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