
Overview

This unit is about producing products using hand-based operations to achieve product specifications and production requirements. It is suitable for process operators who work within an organisational context that provides them with procedures to work to and criteria for making decisions and taking actions.

Examples of production operations that might be involved include:

1. Laminating
2. Assembly
3. Welding/bonding
4. Fabrication
5. Re-treading tyres

This unit deals with the following:

6. Produce products to specification
7. Shutdown a hand-based production process

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

Previous Version

Adapted from Unit C8 of Polymer Processing and Related Operations NOS – version November 2004.

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Performance criteria

- You must be able to:*
- P1 work safely at all times, complying with health and safety and other relevant regulations and guidelines
 - P2 achieve the product specification by following organisational work methods and techniques
 - P3 achieve production requirements and minimise downtime and wastage
 - P4 identify and deal with processing problems by taking appropriate remedial action
 - P5 carry out quality checks to correctly identify non-conforming product
 - P6 dispose of waste materials in accordance with organisational and legal requirements
 - P7 prepare products and forward to the next stage of the production process to meet production requirements
 - P8 estimate completion time and adjust the preparation and feed systems accordingly
 - P9 take prompt and effective actions against potential shutdown hazards
 - P10 input any shutdown settings in accordance with procedures
 - P11 stop the production processes safely in the prescribed sequence
 - P12 ensure equipment and tools are serviced and cleaned in accordance with operational requirements
 - P13 store materials and equipment safely and securely in accordance with organisational requirements
 - P14 keep the relevant documentation up-to-date in accordance with organisational procedures

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Knowledge and understanding

You need to know and understand:

- K1 how to interpret and use product specifications
- K2 which work methods to use to achieve the product specification
- K3 what potential hazards are associated with the production processes and the appropriate actions required to minimise risk to people, property and the environment
- K4 the importance of achieving production requirements and the consequences of not doing so
- K5 the effects of downtime and wastage and how these can be minimised
- K6 the sorts of processing problems that might occur and the appropriate remedial actions to take in response to these
- K7 the purpose and importance of quality assurance checks, and when and how these should be carried out
- K8 what organisational quality standards apply to the product and how these relate to any current and relevant British and/or European quality standards
- K9 what the specified tolerances are and the appropriate action to take in response to deviations within and outside specified tolerances
- K10 the importance of identifying non-conforming materials and products and the actions to take in response to these
- K11 the importance of disposing of waste materials safely and how to do this
- K12 what the next stage of the production process is and how products should be prepared for this
- K13 the organisational requirements for maintaining the condition, safety and security of products
- K14 how to identify shutdown requirements from specifications, schedules, procedures and instructions
- K15 what shutdown settings should be inputted and the importance of inputting them correctly
- K16 what the potential shutdown hazards are and what actions can be taken to minimise risk to people, property and the environment
- K17 the importance of stopping processes in the correct sequence and the consequences of not following the prescribed sequence to shutdown
- K18 the importance of cleaning equipment and tools and how to do this safely and effectively
- K19 the requirements for servicing different equipment and tools and the organisational procedures for arranging this to be carried out
- K20 the organisational requirements for the safe and secure storage of materials and equipment
- K21 what working practices and authorisations apply
- K22 what lines of communication and command should be followed in a given situation

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- K23 why it is important to work within the `rules' of the organisation
- K24 what sorts of records are kept and how to complete them
- K25 the purpose of different records and the implications of not maintaining them effectively
- K26 what agreed workplace health and safety procedures relate to controlling risks to Health and Safety in the process environment
- K27 the specific organisational Health and Safety procedures covering the hand-based production process
- K28 what safe working practices apply to your own job role in carrying out a hand-based production process
- K29 what personal protective equipment should be used, how to fit and use it correctly and how to deal with defective equipment
- K30 your scope and responsibility for dealing with potential hazards in the work area
- K31 the workplace procedures for reporting potential hazards you are unable to deal with

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Additional Information

Glossary

Regulations and guidelines

All relevant health, safety and environmental regulations, organisational procedures and guidelines, standard operating procedures

Product specification

Processing requirements, quality, quantity

Work methods and techniques

For material and product handling, for the operation and control of equipment and tools, for sequencing process operations

Production requirements

Rate of production, production schedule

Problems

Equipment and tool malfunction, variances in material supplies, non-conforming materials or products

Remedial actions

Implementing procedures to correct faults within the limits of your authority, requesting specialist assistance

Quality checks

Programmed checks, spot checks

Prepare

Protection of the product, storage requirements, safety, security

Hazards

Spillages, obstructions, surplus materials, dangerous substances (*e.g. solvents, fumes, hazardous wastes*) dangerous machinery, equipment and tools

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Equipment and tools

Hand tools, hand held power tools, process equipment, ancillary equipment

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