
Overview

This unit is about shutting down a machine-based production process to meet safety 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. The process operation may relate to continuous or batch production and may be a primary or secondary operation.

This unit deals with the following:

1. Prepare for production shutdown
2. Shutdown the 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 C5 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 confirm shutdown requirements from available information
- P3 inform relevant people of the shutdown requirements and confirm their understanding of, and commitment to, shutdown procedures and deadlines
- P4 estimate the quantity of materials required to complete the production run and limit supplies to this level
- P5 select cleaning tools and agents in accordance with specified material and equipment requirements
- P6 select and correctly fit the personal protective equipment required for shutdown operations
- P7 input shutdown settings in accordance with organisational procedures and inform your co-workers and line manager
- P8 set process variables and, where appropriate, services to shutdown mode
- P9 stop production processes in the prescribed sequence
- P10 identify and take appropriate actions to deal with potential shutdown hazards
- P11 identify and separate re-useable materials from waste materials in accordance with organisational requirements
- P12 dispose of waste materials in accordance with organisational and legal requirements
- P13 ensure equipment and tools are serviced and cleaned in accordance with operational requirements
- P14 record the required information on the relevant documentation and forward this in accordance with organisational procedures

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Knowledge and understanding

You need to know and understand:

- K1 how to identify shutdown requirements from specifications, schedules, procedures and instructions
- K2 what the potential shutdown hazards are and what actions can be taken to minimise risk to people, property and the environment
- K3 what personal protective equipment is required for shutdown operations, how to fit and use it correctly and the actions to take with defective equipment
- K4 what cleaning and purging materials are required for the processing equipment and the associated safety and handling requirements
- K5 the factors to be taken into account when limiting the supply of materials to the production process and the implications of these to both the quality and quantity of outputs produced at the end of the production process and successful shutdown
- K6 what shutdown settings should be inputted and the importance of inputting them correctly
- K7 why co-workers and line managers need to know when shutdown settings have been inputted
- K8 the importance of stopping processes in the correct sequence and the consequences of not following the prescribed sequence to shutdown
- K9 how to confirm shutdown mode
- K10 what re-useable materials and recoverable by-products will be left after shutdown and what actions to take to isolate these from waste materials
- K11 the organisational and legal requirements for safely disposing of different types of waste materials
- K12 the importance of cleaning equipment and tools and how to do this safely and effectively
- K13 the requirements for servicing different equipment and tools and the organisational procedures for arranging this to be carried out
- K14 what working practices and authorisations apply
- K15 what lines of communication and command should be followed in a given situation
- K16 why it is important to work within the 'rules' of the organisation
- K17 what sorts of records are kept and how to complete them
- K18 the purpose of different records and the implications of not maintaining them effectively
- K19 what agreed workplace health and safety procedures relate to controlling risks to Health and Safety in the process environment
- K20 the specific organisational Health and Safety policies covering the shutdown of machine-based production processes
- K21 what safe working practices apply to your own job role in shutting down machine-based processing operations

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- K22 your scope and responsibility for dealing with potential hazards in the work area
- K23 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

Shutdown requirements

Timescale and deadlines, shutdown procedures, cleaning requirements, servicing and maintenance requirements Information

Oral, written

Relevant people

Co-workers, service and support personnel

Hazards

Spillages, obstructions, surplus materials, dangerous substances (e.g. solvents, fumes, hazardous wastes)

Re-useable materials

Excess materials, part-processed materials or products, recoverable by-products

Equipment and tools

Hand tools, process equipment, ancillary equipment

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Suite Polymer Processing and Related Operations

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