-SQA- SCOTTISH QUALIFICATIONS AUTHORITY

NATIONAL CERTIFICATE MODULE: UNIT SPECIFICATION

GENERAL INFORMATION

-Module Number- **3251763** **-Session-1993-94**

-Superclass- **VE**

-Title- **PROCESS OPERATIONS 1**

-DESCRIPTION-

GENERAL COMPETENCE FOR UNIT: Using process flow diagrams and describing a range of operations used in processing.

OUTCOMES

1. describe the range of operations used in processing;

2. use process flow diagrams to illustrate simple process operations.

CREDIT VALUE: 1 NC Credit

ACCESS STATEMENT: There is no access statement for this module.

For further information contact: Committee and Administration Unit, SQA, Hanover House, 24 Douglas Street, Glasgow G2 7NQ.

This specification is distributed free to all approved centres. Additional copies may be purchased from SQA (Sales and Despatch section) at a cost of £1.50 (minimum order £5).

NATIONAL CERTIFICATE MODULE: UNIT SPECIFICATION

STATEMENT OF STANDARDS

UNIT NUMBER: 3251763

UNIT TITLE: PROCESS OPERATIONS 1

Acceptable performance in this unit will be the satisfactory achievement of the standards set out in this part of the specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

OUTCOME

1. DESCRIBE THE RANGE OF OPERATIONS USED IN PROCESSING

PERFORMANCE CRITERIA

(a) The identification of the given process operations is correct.
(b) The description of the main features of given process operations is correct.
(c) The description of safety requirements for process operations is correct with respect to the use of personal protection equipment.
(d) The description of safety requirements for process operations is correct with respect to appropriate procedures and legislation.

RANGE STATEMENT

The range statement for this outcome is specified within the performance criteria.

EVIDENCE REQUIREMENTS

Written evidence of the ability to identify process operations, describe the main features of process operations, describe safety requirements for process operations and for the operation of plant services.

For Performance Criterion (a) the candidate must identify a minimum of 3 operations, each from a different area (areas specified in content/context).

OUTCOME

2. USE PROCESS FLOW DIAGRAMS TO ILLUSTRATE SIMPLE PROCESS OPERATIONS

PERFORMANCE CRITERIA

(a) The description of the appropriate sequence of the process units in relation to each other within the process is correct.
(b) The production of a process flow diagram including the appropriate symbols in a given process is correct.

RANGE STATEMENT

The range statement for this outcome is specified within the performance criteria.

EVIDENCE REQUIREMENTS

Written evidence of the ability to describe the appropriate sequence and process units and produce a process flow diagram as required.

ASSESSMENT RECORDS

In order to achieve this unit, candidates are required to present sufficient evidence that they have met all the performance criteria for each outcome within the range specified. Details of these requirements are given for each outcome. The assessment instruments used should follow the general guidance offered by the SQA assessment model and an integrative approach to assessment is encouraged. (See references at the end of support notes).

Accurate records should be made of assessment instruments used showing how evidence is generated for each outcome and giving marking schemes and/or checklists, etc. Records of candidates' achievements should be kept. These records will be available for external verification.

SPECIAL NEEDS

In certain cases, modified outcomes and range statements can be proposed for certification. See references at end of Support Notes.

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SUPPORT NOTES

UNIT NUMBER 3251763

UNIT TITLE PROCESS OPERATIONS 1

SUPPORT NOTES: This part of the unit specification is offered as guidance. None of the sections of the support notes is mandatory.

NOTIONAL DESIGN LENGTH: SQA allocates a notional design length to a unit on the basis of time estimated for achievement of the stated standards by a candidate whose starting point is as described in the access statement. The notional design length for this unit is 40 hours. The use of notional design length for programme design and timetabling is advisory only.

PURPOSE This module is suitable for candidates wishing to gain knowledge of process units and could form part of the National Certificate Group Award in Basic Processing. The module would be suitable for full-time and day release candidates.

SQA publishes summaries of NC units for easy reference, publicity purposes, centre handbooks, etc. The summary statement for this unit is as follows:

This module will enable you to gain a knowledge of the range of operations used in processing. You will also learn how to use process flow diagrams to illustrate simple process operations.

CONTENT/CONTEXT This section is for guidance only and the content/context relevant to the candidate's area and study/employment should be chosen.

Relating to Outcomes 1 and 2.

Unit operations used for reaction; separation; purification; recovery and storage of raw materials, intermediates, by-products, products and services required.

APPROACHES TO GENERATING EVIDENCE A candidate-centred, resource-based learning approach is recommended. The Outcomes in this module need not be taught separately and it is likely that an integrated approach will be used. The outcomes do not need to be tackled in the order shown.

Each candidate should be assessed at appropriate parts throughout the module. Where a candidate is unsuccessful in achieving an outcome, provision should be made for remediation and reassessment.

ASSESSMENT PROCEDURES Centres may use Instruments of Assessment which are considered by tutors/trainers to be the most appropriate. Examples of Instruments of Assessment are as follows:

OUTCOMES 1 AND 2 It is recommended that a project is set here to assess both of these outcomes. It is recommended that a report of at least 300 words is completed within the project. Candidates must provide adequate evidence requirements including completion of all the performance criteria.

PROGRESSION The candidate could progress on to the National Certificate Group Award in Processing.

RECOGNITION Many SQA NC units are recognised for entry/recruitment purposes. For up-to-date information see the SQA guide 'Recognised and Recommended Groupings'.

REFERENCES

1. Guidelines for Module Writers.
2. SQA's National Standards for Assessment and Verification.
3. For a fuller discussion on assessment issues, please refer to SQA's Guide to Assessment.
4. Procedures for special needs statements are set out in SQA's guide 'Students with Special Needs'.