

-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

**- HIGHER NATIONAL UNIT -
SPECIFICATION INFORMATION**

UNIT TITLE: **Safety Management Systems**

UNIT CODE: **D5VR 35**

LEGACY CODE: **7460798**
(D5VR 04)

SUPERCLASS: **PL**

**SOME REFERENCE CODES QUOTED IN THE TEXT
OF THIS DOCUMENT MAY BE OUT OF DATE**

SQA SCOTTISH QUALIFICATIONS AUTHORITY

HIGHER NATIONAL UNIT SPECIFICATION

GENERAL INFORMATION

Unit number 7460798

Unit title SAFETY MANAGEMENT SYSTEMS

Superclass category PL

Date of publication June 1998

Originating centre for unit- Glasgow College of Nautical Studies

-DESCRIPTION-

GENERAL COMPETENCE FOR UNIT: Developing an ability to plan, implement and maintain Safety Management Systems used to effectively control operations and prevent damage to the environment in safety critical industries.

OUTCOMES

1. describe the role, structure and function of Safety Management Systems in the context of a safety critical industry;
2. explain the need for quality assurance during the contract review or planning stage of formulating a safety management system;
3. examine the use and maintenance of a Safety Management System;
4. explain the concepts and practices of systemic internal auditing;

CREDIT VALUE: 1 HN Credit

ACCESS STATEMENT: Access is at the discretion of the centre. However, it would be beneficial if the candidate had studied or had experience in an industry with safety critical and/or potential environmental damaging operations.

Additional copies of this unit can be obtained from:

The Committee and Administration Unit, SQA, Hanover House, 24 Douglas Street, Glasgow G2 7NG (Tel 0141 242 2168)

At the time of publication the cost is £1.50 per unit (minimum order £5.00)

Safety Management Systems
7460798

HIGHER NATIONAL UNIT SPECIFICATION**STATEMENT OF STANDARDS**

UNIT NUMBER: 7460798

UNIT TITLE: SAFETY MANAGEMENT SYSTEMS

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 ROLE, STRUCTURE AND FUNCTION OF SAFETY MANAGEMENT SYSTEMS IN THE CONTEXT OF A SAFETY CRITICAL INDUSTRY.

PERFORMANCE CRITERIA

- (a) The concept of safety is explained, interpreted and related to an appropriate context.
- (b) The systemic principles of safety management are explained in terms of planning, organising, controlling and maintaining operational safety in a critical context.
- (c) Explanation of importance of roles, specifications and structures, within and between the various parts of a safety critical organisation, is accurate in terms of the responsibilities of the key personnel involved.
- (d) The role of management in setting objectives for the organisation is clearly defined in terms of an organisation's overall policy.
- (e) The concept of a safety culture within an organisation is correctly explained in terms of internal and external environments.

RANGE STATEMENT

The range for this outcome is fully expressed within the performance criteria.

EVIDENCE REQUIREMENTS

Written and/or oral evidence of the candidate's ability to describe the role, structure and function of safety management systems in the context of a safety critical industry.

OUTCOME

2. EXPLAIN THE NEED FOR QUALITY ASSURANCE DURING THE CONTRACT REVIEW OR PLANNING STAGE OF FORMULATING A SAFETY MANAGEMENT SYSTEM

PERFORMANCE CRITERIA

- (a) The importance of quality assurance during the design, development and implementation stages of a documented safety management system is correctly described.
- (b) The relationship of systemic standardisation to any appropriate international, national or organisational certified scheme is clearly and accurately described in context.
- (c) The main components of a safety management system are correctly identified
- (d) The functional requirements of a safety management system are explained clearly in context with reference to health, safety and environmental protection.
- (e) The use of legislation, codes of practice, guidelines and other procedural devices, including changes and amendments and concessions, are correctly explained in context

RANGE STATEMENT

Main components: policy; organisation; implementation; measurement; review.

EVIDENCE REQUIREMENTS

Written and/or oral evidence of the candidate's ability to explain the need for quality assurance during the contract review or planning stage of formulating a safety management system.

OUTCOME**3. EXAMINE THE USE AND MAINTENANCE OF A SAFETY MANAGEMENT SYSTEM****PERFORMANCE CRITERIA**

- (a) The type of systemic management model is correctly explained in terms of the application of current and relevant international, national or organisational standards.
- (b) The main requirements of the relevant international, national or organisational standard is correctly applied when using a safety management system for a given operational context.
- (c) The processes involved in gaining and maintaining accreditation is accurately described in terms of the criteria specified by relevant international, national or organisational standards.
- (d) The benefits and limitations of a safety management system are examined clearly and comprehensively from both organisational and operational perspectives.

RANGE STATEMENT

The range for this outcome is fully expressed within the performance criteria.

EVIDENCE REQUIREMENTS

Written and/or oral evidence that the candidate can examine the use and maintenance of a safety management system.

OUTCOME**4. EXPLAIN THE CONCEPTS AND PRACTICES OF SYSTEMIC INTERNAL AUDITING****PERFORMANCE CRITERIA**

- (a) The depth, scope and types of internal audits are explained correctly in relation to the requirements of the relevant international, national or organisational standard and organisation systemic requirements.
- (b) The roles and responsibilities of an audit team are described accurately.
- (c) The procedures involved in initiating, preparing and planning an audit are described correctly in terms of the objectives and reasons for the audit.
- (d) The procedure for carrying out an audit is correctly explained in terms of the required international, national or organisational requirements..
- (e) The presentation of an audit report is correct in terms of the required international, national or organisational requirements..

RANGE STATEMENT

The range for this outcome is fully expressed within the performance criteria.

EVIDENCE REQUIREMENTS

Written and/or oral evidence that the candidate can explain the concepts and practices of systemic internal auditing as specified in the performance criteria.

MERIT STATEMENT To gain a pass in this unit, a candidate must meet the standards set out in the outcomes, performance criteria, range statements and evidence requirements.

To achieve a merit in this unit, a candidate must demonstrate a superior or more sophisticated level of performance. In this unit this might be shown in the following ways:

- (a) Demonstrating a higher grasp of concept of safety with to respect roles, structures and functions of management systems in the context of a given industry, as per Outcome 1
- (b) Demonstrating a greater clarity of expression and presentation in explaining the need for quality assurance during initiating a safety management system in Outcome 2.
- (c) Demonstrating a high degree of coherence and comprehension in the use and maintenance of a Safety Management System in Outcome 3.
- (d) Demonstrating higher level skills of analysis with reference to explaining the concepts and practices of systemic internal auditing in Outcome 4.

ASSESSMENT

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 Scottish Qualifications Authority (SQA) assessment model and an integrative approach to assessment is encouraged. (See references at the end of the support notes).

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

SPECIAL NEEDS

Proposals to modify outcomes, range statements of agreed assessment arrangements should be discussed in the first place with the external verifier.

© Copyright SQA 1998

Please note that this publication may be reproduced in whole or in part for educational purposes provided that:

- (i) no profit is derived from the reproduction;
- (ii) if reproduced in part, the source is acknowledged

NOTE

The following pages of this unit specification contain Support Notes.

It should be noted that these Support Notes will normally be specific to the context of the award in which the unit was first validated.

**HIGHER NATIONAL UNIT SPECIFICATION
SUPPORT NOTES****-Unit Number- 7460798****-Superclass- PL****-Title- SAFETY MANAGEMENT SYSTEMS**

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

NOTIONAL DESIGN LENGTH: SQA allocated a national design length to a unit on the basis of the 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 length for programme design and timetabling is advisory only.

PURPOSE: The purpose of this unit is to develop the candidate's ability to plan, implement and maintain Safety Management Systems used to effectively control operations and prevent damage to the environment in safety critical industries. In particular, this unit is focused upon safety critical operational environments such as found in the transport, offshore exploration, public service, and gas, chemical and oil refining and processing industries. The prime objective of this unit is to consider safety management systems that are part of recognised, articulated schemes of industries that operate in critical areas of safety, health or environment protection.

CONTENT/CONTEXT: The following information gives further clarification regarding the operational and functional context in which the outcomes and performance criteria of this unit are to be achieved..

In the context of standards, international, national or organisational management systems can taken as any formally recognised scheme for a particular industry. Such schemes must be formally articulated within the relevant industry but may have an international, national or organisational focus.

For example internationally, in general any of the 'International Standards Organisation' (ISO) series would be appropriate. In particular, the 'International Safety Management (ISM) Code' would be especially appropriate for Shipping. Nationally, in the context of the UK offshore oil and gas industry, any SMS based on a 'Health and Safety Executive' (HSE) 'Safety Case' submission would be particularly appropriate. Public Service and transportation management systems, for example such as those found in fire, police, rail and airport services, could be considered in both national and organisational contexts.

Corresponding to Outcome:

1. The implications for organisations, their role, structures and operations should be considered in the context of the required safety culture for effective safety management. In particular, organisational structures should be considered with regard to scope; authority; responsibility; control: objectives; communication; continuity specialisation; co-ordination; allied/support organisations. The role of senior management should be considered from both internal and external perspectives
2. The need for quality assurance during the contract review or planning stage of formulating a safety management system should focus on documented articulation of a safety management system with regard to an hierarchical system of policy, procedures, instructions and records.
3. The examination of the use, and maintenance, of a safety management system should follow the framework as set up in outcome 2. Any special requirements, as to context, validity or function, of the safety management under scrutiny should be fully addressed. As well as considering safety, health and or environmental factors the benefit/limitation of safety management systems should take account of commercial, efficiency or effectiveness deliberations
4. In “explain the concepts and practices of systemic internal auditing” account obviously has to be taken of context. However, within this, account also has to be taken of systemic and management variables as to the structure, personnel, technology and culture of the industry involved, as well as the particular scheme of standards involved.

APPROACHES TO GENERATING EVIDENCE: A student-centred approach is recommended with the use of group discussion, library and other research source material being used as appropriate. Concepts and terminology should be presented in context throughout the unit. To enable this it is recommended that an integrated case study is used as a carrier for all four outcomes of the unit. It should be noted that input from Role Play activities form outcomes 2 and 4 may also form part of the case study.

During the work of the unit, candidates should be assessed at appropriate points to ensure they have the underpinning knowledge required, and an understanding of the concepts involved, to undertake the activities of the case study.

ASSESSMENT PROCEDURES: An assessment plan should be given to the candidate at the introduction of the unit. Taking into account the integrated nature of the case study, i.e. carried across all four outcomes, it is suggested that the activities of the case study address the following issues.

OUTCOME:

1. The candidate will produce case study responses describe the role, structure and function of Safety Management Systems in the context of a safety critical industry
2. The candidate will produce case study responses based on explanations of the need for quality assurance during the contract review or planning stage of formulating a safety management system. Additionally, this task may be facilitated role lay activities based on the formulation of plans, procedures and work instructions.
3. The candidate will produce case study responses on an examination of the use and maintenance of a Safety Management Systems
4. The candidate will produce case study responses based on an explanation of the concepts and practices of systemic internal auditing. Additionally, this task may be facilitated by role play activities based on conducting internal audits.

PROGRESSION: This Unit counts towards a HNC International Shipping Business and a HND International Shipping Business.

REFERENCES:

1. Guide to Unit Writing, SQA 1993 (Code: A018)
2. Guide to assessment, SQA, 1993 (Code: B005)
3. Guide to certification, SQA, 1996 (Code: F025)
4. Notes for unit writers SQA., 1995 (Code: A041)

For details of other SQA Publications, please contact staff in the Sales and Despatch section (Tel 0141 242 2168) who can supply you with a copy of the publication list (Code: X037).

© Copyright SQA 1998

Please note that this publication may be reproduced in whole or in part for educational purposes provided that:
(i) no profit is derived from the reproduction;
(ii) if reproduced in part the source is acknowledged..