SIAS Qualification Specification

SIAS Level 3 Award Process Safety Management

Qualification Number: 610/4750/8

Operational Start Date: 1st October 2024

Contents

Version History

This is a live document and as such will be updated when required. It is the responsibility of the approved centre to ensure the most up-to-date version of the Qualification Specification is in use.

Version	Date	Comments
1.0	20/09/2024	First published
1.1	27/01/2025	Update to Centre Requirements

Introduction

Welcome to SIAS

SIAS is an Awarding Organisation regulated in England by the Office of Qualifications and Examinations Regulation (Ofqual) and in Northern Ireland by the Council for Curriculum, Examination and Assessment Regulation (CCEA Regulation).

We exist to drive positive change, and across STEM industries globally, we empower learners to achieve their full potential.

As the leading Awarding Organisation for the technical science, manufacturing, engineering and low carbon sectors, we are disrupting through innovative and collaborative approaches.

Our mission is to deliver transformational experiences and solutions that support the skills agenda.

Feedback

Customer experience and feedback is very important to us. We're always open to suggestions when it comes to enhancing and improving our services. If you have any comments or feedback on our services or products, please contact our team at info@siasuk.com or call us on 01925 515211.

About this Specification

This document has been developed to provide information for learners and centres undertaking, delivering or quality assuring this qualification.

Centre Recognition and Qualification Approval

To deliver this qualification, the centre must be recognised by SIAS.

Recognised centres must apply for approval for each qualification they intend to offer. Qualification approval must be obtained prior to conducting any learner assessments.

For details of our centre recognition and qualification approval process, visit our website or contact us at info@siasuk.com.

About this Qualification

Key Facts

Qualification Title	SIAS Level 3 Award in Process Safety Management
Qualification Number	610/4750/8
Guided Learning Hours (GLH)	12
Total Qualification Time (TQT)	30
Assessment Methods	Learner Assessment Workbook
Operational Start Date	1 October 2024
Review Date	30 September 2027
Operational End Date	-
Certification End Date	-
Regulation	This qualification is regulated by Ofqual
Certificate Validity	3 years

Qualification Objective

The SIAS Level 3 Award in Process Safety Management is designed to develop the learner's knowledge and understanding in the principles of process safety management across an organisation. The qualification is aimed at managers, supervisors, designers, safety personnel, and senior contract employees who are involved in managing aspects of process safety within the organisation. Following completion of the qualification, the learner will have a clear understanding of major accident risks and the safety critical equipment and operational practices designed to control them.

The SIAS Level 3 Award in Process Safety Management has been developed by SIAS in partnership with Cogent Skills with approval from the Process Safety Management Competency Programme Board and is aligned to the Process Safety Management Training Standards.

This qualification is valid for 3 years from the date of award, after which point, learners will need to retake the qualification to demonstrate they have the up-to-date knowledge and understanding of process safety management across an organisation.

Entry Requirements

This qualification is available for learners aged 18+.

There are no formal entry requirements for the SIAS Level 3 Award in Process Safety Management. However, learners should have a basic understanding of English and mathematics. Centres should also ensure learners are able to complete this qualification, for example, through completing an initial assessment to ensure they can work at the appropriate level.

Recognition of Prior Learning

Recognition of Prior Learning (RPL) is the process of recognising previous, informal or experiential learning which could contribute to a qualification or unit. SIAS supports the use of RPL and centres must work to the principles included in the SIAS RPL Policy which is available on the SIAS website. This policy should be reviewed alongside this guide and all other relevant SIAS qualification documentation.

Qualification Structure

To achieve the SIAS Level 3 Award in Process Safety Management learners must achieve the following.

- The 1 mandatory unit listed below:

Ofqual Unit reference	Unit title	Level	GLH	TQT
D/651/3247	Understand the Principles of Process Safety Management	3	12	30
TOTAL			**12**	**30**

Total Qualification Time (TQT) and Guided Learning Hours (GLH)

Note: Values for Total Qualification Time, including Guided Learning Hours, are calculated by considering the different activities that learners would typically complete to achieve and demonstrate the learning outcomes of a qualification. They do not include activities which are required by a learner's teacher based on the requirements of an individual learner and/or cohort. Individual learners' requirements and individual teaching styles mean there will be variation in the actual time taken to complete a qualification. Values for Total Qualification Time, including Guided Learning, are estimates.

Some examples of activities which can contribute to Total Qualification Time include:

- Independent and unsupervised research/learning
- Unsupervised compilation of a portfolio of work experience
- Unsupervised e-learning
- Unsupervised e-assessment practice
- Unsupervised coursework
- Watching a pre-recorded podcast or webinar
- Unsupervised work-based learning
- All Guided Learning

Some examples of activities which can contribute to Guided Learning include:

- Classroom-based learning supervised by a teacher
- Work-based learning supervised by a teacher

- Live webinar or telephone tutorial with a teacher in real time
- E-learning supervised by a teacher in real time
- All forms of assessment which take place under the immediate guidance or supervision of a lecturer, supervisor, tutor or other appropriate provider of education or training, including where the assessment is competence-based and may be turned into a learning opportunity.

Grading

This qualification is graded as a pass/fail.

Delivery and Assessment

Use of Language

All learners must be assessed in English unless the qualification specification states that another language will be accepted.

Progression Opportunities

Upon successfully completing this qualification, learners may wish to progress into further development and training within process safety management.

Assessment Guidance

All SIAS assessments will be accessible and produce results that are valid, reliable, transparent and fair.

The SIAS Level 3 Award in Process Safety Management contains 1 mandatory unit.

To achieve the qualification, learners must successfully pass:

Unit Title	Assessment Method	Set by	Marked by
Understand the Principles of Process Safety Management	Externally set and internally marked Learner Assessment Workbook	SIAS	Centre

Centres should have systems in place to verify a learner is ready to undertake their assessment.

Learner Assessment Workbook

The SIAS Learner Assessment Workbook will be used to assess the learner's knowledge and understanding in the principles of process safety management. The questions within the SIAS Learner Assessment Workbook will cover all the learning outcomes and assessment criteria from the one mandatory unit within this qualification.

This workbook is internally marked and quality assured by the centre, using the provided marking guidance, and externally quality assured by SIAS. All assessment criteria within the mandatory unit must be met to achieve the qualification. Centres are **NOT** permitted to use their own workbook and must use the Learner Assessment Workbook provided by SIAS. The SIAS Learner Assessment Workbook and Marking Guide is available to download from Pinacle.

All knowledge assessment evidence must be retained for a minimum of 3 years for audit purposes and be available to the EQA upon request.

Learners who fail to achieve a pass will be permitted to retake the assessment.

Centres must ensure that no part of the assessment of a learner, including internal quality assurance, is conducted by anyone with a personal interest in the assessment outcome.

Centres are responsible for ensuring assessment decisions are valid and reliable, and that work submitted for assessment by learners is prepared and produced independently and free of plagiarism.

Documentation to support the qualification assessment process can be accessed from the SIAS Pinacle system.

Centre Requirements

All SIAS centres must be approved by SIAS to deliver they qualification(s) they wish to offer. This is to ensure centres have the processes and resources in place to deliver the qualification(s). Further information can be found in the SIAS Centre Handbook.

When a centre applies to offer a qualification, they will need to provide evidence that they have sufficient resources and infrastructure in place for delivery of that qualification.

- evidence of trainer, assessor and IQA competence and knowledge
- details of available resources
- be on the panel of providers approved by the Process Safety Management Competence Programme Board

Centres are responsible for ensuring that their assessors and internal quality assurance staff are:

- occupationally competent and/or knowledgeable in the role they are carrying out
- have current experience of assessing or internal quality assuring as appropriate to the role they are carrying out
- have access to appropriate training and support
- are independent

Information regarding the induction and continuing professional development must be made available to SIAS by centres through the external quality assurance process.

Facilities

Training and assessment for approved qualifications must take place in a suitable environment that has been approved by SIAS. The environment must be adequately equipped for training, conducive to effective learning, and must comply with current Health and Safety requirements. Equipment for practical activities must be readily available and fit for purpose.

Tutor/Trainer Requirements

Both tutor/trainer and assessor roles may be performed by the same person providing that the qualification requirements for both roles are met.

For the SIAS Level 3 Award in Process Safety Management tutors/trainers are required to demonstrate they:

- have relevant occupational knowledge and competence, including relevant experience working within a process safety management role
- hold a recognised education and training qualification or have equivalent training experience
- have completed recent, relevant CPD activities for the subject area
- have gained approval from the Process Safety Management Competence Programme Board to deliver against the Process Safety Management Training Standards

Evidence includes:

- CV and relevant occupational qualifications and experience
- Up-to-date CPD Record including certification from any courses attended
- Confirmation from the Process Safety Management Competence Programme Board to deliver against the Process Safety Management Training Standards

SIAS recommends that as best practice for tutors/trainers to hold or be working towards a relevant education and training qualification. These include:

- Level 3 Award in Education and Training or equivalent including Preparing to Teach in the Lifelong Sector (PTLLS), CertEd/PGCE, L4 Certificate in Education and Training, L5 Diploma in Education and Training

Where this is not the case, SIAS will look at alternative sources of evidence for training competence, such as professional qualifications, relevant work experience or internal training records. For further guidance, please contact us.

Assessor Requirements

Both tutor/trainer and assessor roles may be performed by the same person providing that the qualification requirements for both roles are met.

For the SIAS Level 3 Award in Process Safety Management assessors are required to demonstrate they:

- have relevant occupational knowledge and competence
- hold or be working towards a recognised assessor qualification or have equivalent assessing experience
- have completed recent, relevant CPD activities for the subject area

Evidence includes:

- CV and relevant occupational qualifications and experience
- Up-to-date CPD Record including certification from any courses attended

SIAS recommends that as best practice for assessors to hold or be working towards a relevant assessor qualification. These include:

- Level 3 Award in Assessing Vocationally Related Achievement or equivalent including A1, Award D32 and D33, L3 Award in Assessing Competence in the work Environment, L3 Certificate in Assessing Vocational Achievement

Where this is not the case, SIAS will look at alternative sources of evidence for assessing competence, such as professional qualifications, relevant work experience or internal training records. For further guidance, please contact us.

Internal Quality Assurance Requirements

SIAS requires that centres implement a strong system for the internal quality assurance of their assessment processes and training delivery. This internal quality assurance must be carried out by a suitably qualified individual who has not participated in the delivery or assessment of the course they are evaluating.

For the SIAS Level 3 Award in Process Safety Management IQAs are required to demonstrate they:

- hold or be working towards a recognised internal quality assurance qualification or have equivalent internal quality assurance experience
- have completed recent, relevant CPD activities

Evidence includes:

- CV and relevant occupational qualifications and experience
- Up-to-date CPD Record including certification from any courses attended

SIAS recommends that as best practice for IQAs to hold or be working towards a relevant IQA qualification. These include:

- Level 4 Award in the Internal Quality Assurance of Assessment Processes and Practice or equivalent including D34 or V1

Where this is not the case, SIAS will look at alternative sources of evidence for IQA competence, such as professional qualifications, relevant work experience or internal training records. For further guidance, please contact us.

Continuing Professional Development (CPD)

Centres are expected to support their staff, ensuring that their subject knowledge remains current and is up to date with best practice in delivery, assessment and quality assurance.

Quality Assurance Guidance

All SIAS qualifications require centres to have in place a robust mechanism for the quality assurance of training delivery and assessment arrangements.

External Quality Assurance

External quality assurance will be undertaken by SIAS. Centres will be required to provide documentation and other evidence to support this process upon request. Please refer to our Centre Handbook for further details.

Equality and Diversity

Delivery of SIAS qualifications must comply with equality and diversity legislation. Learners should not experience any barriers to achievement in respect of:

- Age
- Disability
- Gender
- Gender reassignment
- Marriage and civil partnerships
- Pregnancy and maternity
- Race
- Religion and belief
- Sexual orientation

Reasonable Adjustments

All learners must be treated fairly and equally and be provided with every opportunity to achieve our qualification(s). For more information or guidance, please refer to the SIAS Reasonable Adjustments Policy available on our website.

Health and Safety

SIAS are committed to ensuring the safety and wellbeing of learners. Due to the nature of some of the sectors SIAS work in, there can be a high level of risk which we expect centres to manage effectively. Centres must take appropriate measures to assess and manage these risks and implement procedures so that qualifications are delivered safely, minimising risks to learners and those involved in the assessment process as much as possible. Working environments must comply with all required health and safety standards.

Qualification Content

Unit: Understand the Principles of Process Safety Management

Unit Reference	D/651/3247	
Level	3	
GLH	12	
Aim	The aim of this unit is to provide the learner with knowledge and understanding of the principles of process safety management across an organisation.	
Assessment Methodology	Learner Assessment Workbook	
Learning Outcomes *The learner will:*	**Assessment Criteria** *The learner can:*	
1. Understand the importance and key principles of process safety management.	1.1	Outline the importance of process safety management.
	1.2	Explain the difference between occupational safety and process safety.
	1.3	Summarise significant major accident events which have occurred as a result of poor process safety management.
	1.4	Outline the recurring root cause failures of major accidents that highlight the key issues associated with poor process safety management.
	1.5	Describe the key requirements of process safety management.
	1.6	Outline process safety leadership including the Process Safety Leadership Group (PSLG) Principles of Process Safety Leadership.
	1.7	Summarise relevant health, safety and environmental legislation and other requirements relating to process safety management.
	1.8	Explain the need for an integrated, complete process safety management system to be in place.
	1.9	Explain the implications of process safety management on the complete lifecycle of the plant from design to decommissioning.
2. Understand how to identify hazards associated with	2.1	Describe the types and properties of hazardous substances including: • classification • reaction hazards • toxic

hazardous substances and process plant.		• fire • explosion • environmental hazards
	2.2	Describe appropriate hazard identification techniques.
	2.3	Describe the challenges to plant integrity and the causes of loss of containment.
	2.4	Explain the potential impact of major accident hazards on people, environment and the business, both on and off the site.
3. Understand how to assess the risks associated with hazardous substances and process plant.	3.1	Explain quantitative and qualitative risk assessment techniques including occupied buildings risk assessments.
	3.2	Explain the hierarchy of risk control
	3.3	Explain the concepts of risk reduction and risk tolerability: • Individual • Societal
	3.4	Define the ALARP principle.
	3.5	Explain the importance of periodic re-validation of risk assessments.
4. Understand the importance of identifying suitable safety critical equipment, implementing key risk control systems and the importance of sustaining their effectiveness.	4.1	Define what is meant by the terms 'safety critical equipment' and 'key risk control systems' including: • Plant • Process • People
	4.2	Explain the need for multiple independent layers of protection.
	4.3	Describe the essential elements of inherent safety, prevention, control and mitigation.
	4.4	Explain how safety critical equipment and key risk control systems are identified.
	4.5	Explain the need for safety critical equipment and key risk control systems to be maintained throughout the lifecycle of the plant.
	4.6	Explain the importance of a competency management system in ensuring an organisation has a competent workforce that will perform safety critical tasks reliably and safely.
	4.7	Explain the importance of human factors as a key part of a competence management system.
	4.8	Explain the integrated nature of process safety management key risk control systems.

		This must include reference and illustrated examples of: • Hazard identification and risk assessment including periodic re-validation • DSEAR and hazardous area classification • Operating procedures • Safe systems of work • Permit to work • Control and competency of contractors and third party suppliers • Testing and inspection • Maintenance • Asset integrity • Management of change – plant, process, people, organisation • Operational readiness • Competency assurance • Shift handover • Incident investigation • Emergency response • Audit and review
5. Understand the need for effective measures to limit the consequences of a major accident	5.1	Outline the legislative requirements with regard to effective emergency response.
	5.2	Outline the typical mitigation measures taken to limit the consequences of major accidents.
	5.3	Outline the key elements of an on- and off-site emergency plan with reference to the following: • Fires and explosions • Toxic releases • Releases to the environment
	5.4	Outline the issues involved in resourcing effective delivery of the emergency plan.
	5.5	Explain the importance of realistic exercising of the on- and off-site emergency plan.
6. Understand how to apply learning from incidents and near misses.	6.1	Provide an outline of relevant major accidents and investigation reports.
	6.2	Give examples of key process safety learning points from accidents and near misses.
	6.3	Give examples of how learning from other organisations and sectors can be used to improve process safety.

	6.4	Describe the principal inputs to and outputs from an incident investigation to develop and apply learning.
	6.5	Explain the importance of identifying root causes.
7. Understand how to achieve continual improvement in process safety performance.	7.1	Explain how to develop and utilise leading and lagging process safety performance indicators.
	7.2	Explain the importance of workforce involvement and management commitment to a positive safety culture.
	7.3	Explain the importance of auditing process safety management systems.
	7.4	Explain the need for management review.
	7.5	Explain the importance of periodic evaluation of compliance with applicable legal requirements.
	7.6	Describe how to formulate process safety improvement plans.
	7.7	Explain the importance of process safety leadership practices at every level in an organisation.

Resources

SIAS provides the following additional resources for this qualification:

- Qualification Learner Logbook
- Centre Qualification Guide
- SIAS Learner Assessment Workbook
- SIAS Learner Assessment Workbook Marking Guidance

Sample Assessment Material

Please see below a sample assessment question:

Question 1: Why is process safety management important for ensuring safety in operations?			
Unit Number: 1		**Assessment Criteria: 1.1**	
Answer:			
Pass:		**Fail:**	
Assessor Comments:			

Further Information

For information about SIAS and general enquiries please see our website: www.siasuk.com or contact:

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