QUALIFICATION HANDBOOK

Level 3 Diploma in Downstream Control Room Operations (0640-35)
Level 3 Diploma in Downstream Field Operations (0640-36)

January 2013 Version 1.2

City & Guilds

Qualifications at a glance

Subject area	**Process Engineering**
City & Guilds number	0640
Age group approved	16+
Entry requirements	Level 2
Assessment	Portfolio of evidence
Fast track	Available
Support materials	Centre handbook
Registration and certification	Consult the Walled Garden/Online Catalogue for last dates

Title and level	City & Guilds number	Accreditation number
Level 3 Diploma in Downstream Control Room Operations	0640-35	600/5184/X
Level 3 Diploma in Downstream Field Operations	0640-36	600/5185/1

Version and date	Change detail	Section
1.2 January 2013	Formatted structure tables, amended information under Assessor and Internal Quality Assurer in section two and amended the title of unit 308	Introduction, Centre requirements and Units

Contents

1 Introduction

This document tells you what you need to do to deliver the qualifications:

Area	Description
Who are the qualifications for?	**Downstream Control Room Operations** This qualification is for individuals that are responsible for the safe, efficient and effective control of all refinery plant and equipment within agreed scope of authority. **Downstream Field Operations** This qualification is for individuals that are responsible for the safe, efficient and effective operation of all plant and equipment on refinery units or groups of units.
What do the qualifications cover?	They allow learners to learn, develop and practise the skills required for employment and/or career progression in Downstream Operations.
What opportunities for progression are there?	The qualifications allow learners to progress into employment in a refinery environment.

Structure

To achieve the **Level 3 Diploma in Downstream Control Room Operations (0640-35)**, learners must achieve a minimum of 72 credits. 61 credits must be achieved from the mandatory units and a minimum of 11 credits from 2 of the optional groups (group A: units 205-206), (group B: units 313-314), (group C: units 401-402).

To achieve the **Level 3 Diploma in Downstream Field Operations (0640-36)**, learners must achieve a minimum of 69 credits. 61 credits must be achieved from the mandatory units and a minimum of 8 credits from 2 of the optional groups (group A: units 211-212), (group B: 213-214), (group C: 215 and 329), (group D 327-328), (group E 403-404).

Level 3 Diploma in Downstream Control Room Operations

Unit accreditation number	City & Guilds unit number	Unit title	Credit value
Mandatory			
F/600/1856	201	How to work effectively in a team within downstream control room operations environments	4
H/600/1851	202	Respond to incidents, hazardous conditions and emergencies within downstream control room operations environments	3
M/600/1853	203	How to respond to incidents, hazardous conditions and emergencies within downstream control room operations environments	3
T/600/1854	204	Work Effectively in a Team Within Downstream Control Room Operations Environments	4
A/600/3024	301	How to monitor and maintain process and equipment conditions within downstream control room operations environments	4
D/600/3033	302	How to prepare for maintenance within downstream control room operations environments	5

Unit accreditation number	City & Guilds unit number	Unit title	Credit value
F/600/3025	303	Handle non-routine information on plant condition within downstream control room operations environments	3
J/600/1860	304	How to start up equipment within downstream control room operations environments	5
K/600/1768	305	Contribute to the safety of the processing environment within downstream control room operations environments	3
K/600/3021	306	Monitor and maintain process and equipment conditions within downstream control room operations environments	3
L/600/1858	307	Start up equipment within downstream control room operations environments	4
L/600/3027	308	How to handle non-routine Information on plant condition within downstream control room operations environments	5
L/600/3030	309	How to shut down equipment within downstream control room operations environments	5

Unit accreditation number	City & Guilds unit number	Unit title	Credit value
R/600/3028	310	Shut down equipment within downstream control room operations environments	2
T/600/1773	311	How to contribute to the safety of the processing environment within downstream control room operations environments	5
Y/600/3032	312	Prepare for maintenance within downstream control room operations environments	3
Optional			
J/600/3270	205	How to facilitate the maintenance of plant and equipment within downstream control room operations environments	2
R/600/3269	206	Facilitate the maintenance of plant and equipment within downstream control room operations environments	2
J/600/3267	313	Carry out advanced control room operations within downstream control room operations environments	3
L/600/3268	314	How to carry out advanced control room operations within downstream control room operations environments	4

Unit accreditation number	City & Guilds unit number	Unit title	Credit value
R/600/3272	401	Provide instruction within downstream control room operations environments	3
Y/600/3273	402	How to provide instruction within downstream control room operations environments	5

Level 3 Diploma in Downstream Field Operations

Mandatory			
F/600/3042	207	Respond to Incidents, Hazardous Conditions and Emergencies within Downstream Field Operations Environments	3
J/600/3043	208	How to Respond to Incidents, Hazardous Conditions and Emergencies within Downstream Field Operations Environments	3
L/600/3044	209	Work Effectively in a Team within Downstream Field Operations Environments	4
Y/600/3046	210	How to Work Effectively in a Team within Downstream Field Operations Environments	4
A/600/3038	315	Contribute to the Safety of the Processing Environment within Downstream Field Operations Environments	3

Unit accreditation number	City & Guilds unit number	Unit title	Credit value
A/600/3198	316	How to Handle Non-routine Information on Plant Condition within Downstream Field Operations Environments	5
D/600/3193	317	Monitor and Maintain Process and Equipment Conditions within Downstream Field Operations Environments	3
D/600/3260	318	Prepare for Maintenance within Downstream Field Operations Environments	3
H/600/3194	319	How to Monitor and Maintain Process and Equipment Conditions within Downstream Field Operations Environments	4
H/600/3258	320	Shut Down Equipment within Downstream Field Operations Environments	2
H/600/3261	321	How to Prepare for Maintenance within Downstream Field Operations Environments	5
K/600/3259	322	How to Shut Down Equipment within Downstream Field Operations Environments	5
M/600/3196	323	Handle Non-routine Information on Plant Condition within Downstream Field Operations Environments	3

Unit accreditation number	City & Guilds unit number	Unit title	Credit value
R/600/3191	324	How to Start Up Equipment within Downstream Field Operations Environments	5
T/600/3040	325	How to Contribute to the Safety of the Processing Environment within Downstream Field Operations Environments	5
Y/600/3189	326	Start Up Equipment within Downstream Field Operations Environments	4
Optional			
M/600/3327	211	Carry Out Maintenance within Agreed Scope of Authority Within Downstream Field Operations Environments	2
T/600/3328	212	How to Carry Out Maintenance within Agreed Scope of Authority Within Downstream Field Operations Environments	2
M/600/3330	213	Provide Samples For Analysis within Downstream Field Operations Environments	2
T/600/3331	214	How to Provide Samples For Analysis within Downstream Field Operations Environments	2
L/600/3335	215	How to Analyse Samples within Downstream Field Operations Environments	2

Unit accreditation number	City & Guilds unit number	Unit title	Credit value
H/600/3325	327	Carry Out Local Control Operations within Downstream Field Operations Environments	3
K/600/3326	328	How to Carry Out Local Control Operations within Downstream Field Operations Environments	4
A/600/3332	329	Analyse Samples within Downstream Field Operations Environments	2
D/600/3338	403	Provide On-plant Instruction within Downstream Field Operations Environments	3
H/600/3339	404	How to Provide On-plant Instruction within Downstream Field Operations Environments	5

2 Centre requirements

Approval

Centres already offering City & Guilds qualifications

Centres that have offered the following qualifications will be automatically approved to deliver Downstream Field and Control Room Operations qualifications:

- 0779-03 Level 3 NVQ in Refinery Operations

Centres not already offering City & Guilds qualifications

To offer these qualifications, new centres will need to gain both centre and qualification approval. Please refer to the Centre Manual - Supporting Customer Excellence for further information.

Centre staff should familiarise themselves with the structure, content and assessment requirements of the qualification[s] before designing a course programme.

Resource requirements

Physical resources and site agreements

The assessment methods used to assess the occupational competence of the learners should be valid, reliable, fair and applicable to real work in the normal day to day working environment.

Centre staffing

Staff delivering these qualifications must be able to demonstrate that they meet the following occupational expertise requirements. They should:

- be occupationally competent or technically knowledgeable in the areas for which they are delivering training and/or have experience of providing training. This knowledge must be above or to the same level as the training being delivered
- **hold the Level 3 Qualification in Process Operations (Control Room) hydrocarbons, or an equivalent qualification.**
- have recent relevant experience in the specific area they will be assessing
- have credible experience of providing training.

Centre staff may undertake more than one role, eg tutor and assessor or internal quality assurer, but cannot internally verify their own assessments.

Assessors and Internal Quality Assurer

Assessor/Internal Quality Assurer TAQA qualifications are valued as qualifications for centre staff, but they are not currently a requirement for the qualifications.

Continuing professional development (CPD)

Centres must support their staff to ensure that they have current knowledge of the occupational area, that delivery, mentoring, training, assessment and verification is in line with best practice, and that it takes account of any national or legislative developments.

Learner entry requirements

City & Guilds does not set entry requirements for these qualifications. However, centres must ensure that learners have the potential and opportunity to gain the qualifications successfully.

Age restrictions

City & Guilds cannot accept any registrations for learners under 16 as these qualifications are not approved for under 16s.

3 Delivering the qualification

Initial assessment and induction

An initial assessment of each learner should be made before the start of their programme to identify:

- if the learner has any specific training needs,
- support and guidance they may need when working towards their qualification.
- any units they have already completed, or credit they have accumulated which is relevant to the qualification.
- the appropriate type and level of qualification.

We recommend that centres provide an induction programme so the learner fully understands the requirements of the qualification, their responsibilities as a learner, and the responsibilities of the centre. This information can be recorded on a learning contract.

Recording documents

Learners and centres may decide to use a paper-based or electronic method of recording evidence.

City & Guilds endorses several ePortfolio systems, including our own, **Learning Assistant**, an easy-to-use and secure online tool to support and evidence learners' progress towards achieving qualifications. Further details are available at: **www.cityandguilds.com/eportfolios**.

City & Guilds has developed a set of *Recording forms* including examples of completed forms, for new and existing centres to use as appropriate. *Recording forms* are available on the City & Guilds website.

Although new centres are expected to use these forms, centres may devise or customise alternative forms, which must be approved for use by the external verifier, before they are used by learners and assessors at the centre. Amendable (MS Word) versions of the forms are available on the City & Guilds website.

4 Assessment

Assessment of the qualification

Learners must:

- have a completed portfolio of evidence for each unit

Assessment strategy

The assessment strategy for these qualifications has been set by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers.

Please note: simulation is **not** always suitable for the qualifications within this sector. The Assessment Strategy defines where evidence from stimulation is acceptable, and in which contexts.

Please refer to the **latest** version of Cogent's Assessment Strategy. The 12 August 2009 version can be found on the City & Guilds website **www.cityandguilds.com** (This version is the most recent version at August 2012).

Please contact Cogent for further detail, information and/ or latest version

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5 Units

Availability of units

The following units can also be obtained from the centre resources section of the City & Guilds website, or are available The Register of Regulated Qualifications: **http://register.ofqual.gov.uk/Unit**

Structure of units

These units each have the following:

- City & Guilds reference number
- unit accreditation number
- title
- level
- credit value
- endorsement by a sector or other appropriate body
- information on assessment
- learning outcomes which are comprised of a number of assessment criteria
- notes for guidance.

Unit 201 How to work effectively in a team within downstream control room operations environments

UAN:	F/600/1856
Level:	Level 2
Credit value:	4
GLH:	34
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know how to carry out checks prior to undertaking an activity
Assessment criteria
The learner can: 1.1 Identify how to check that all parties, including self, understand what is required of them and what their responsibilities are 1.2 Explain why it is important that personnel know what is required of them 1.3 Identify the methods of monitoring the activity 1.4 Explain the method of work activity planned

Learning outcome
The learner will: 2. Know how to minimise disruptions
Assessment criteria
The learner can: 2.1 Explain the importance of keeping to agreed time schedules

Learning outcome
The learner will: 3. Know how to use and monitor the effectiveness of communication methods at all times
Assessment criteria
The learner can: 3.1 Describe how to check whether others need to be informed 3.2 Identify the methods of communication within the organisation and when and how to use them 3.3 Explain how to keep all relevant personnel informed of the progress of the activity

Learning outcome
The learner will: 4. Know how to deal with problems
Assessment criteria
The learner can: 4.1 Describe what typical problems may arise that are their responsibility and how to deal with them 4.2 Identify who to inform if the problem cannot be solved and/or responsibility and/or authority is exceeded 4.3 Explain why it is important to deal with problems effectively 4.4 Explain what actions could be taken when disagreement occurs

Learning outcome
The learner will: 5. Know how to assist others
Assessment criteria
The learner can: 5.1 Describe how to identify when assistance may be required 5.2 Explain how to give assistance within the limit of their authority

Learning outcome
The learner will: 6. Know how to liaise with, and support, others
Assessment criteria
The learner can: 6.1 Explain why it is important to give constructive feedback and support in the operation 6.2 Explain how to give, and take, constructive feedback and support within the organisation

Learning outcome
The learner will: 7. Know how to follow organisational, operational and regulatory procedures
Assessment criteria
The learner can: 7.1 Explain personal responsibilities with regard to health, safety, environment and activities 7.2 Describe the meaning of responsibility and authority in the organisation 7.3 Explain how to check the level of authority and limit of responsibility required to undertake works 7.4 Identify what documentation to use and what information needs to be recorded 7.5 Explain the importance of completing documentation/records accurately and clearly 7.6 Describe the implications of statutory (e.g. HASAWA, COMAH and COSHH) and organisational and operational requirements and explain how to comply with them 7.7 Explain the emergency procedures for plant and site

Unit 201 How to work effectively in a team within downstream control room operations environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 202 Respond to incidents, hazardous conditions and emergencies within downstream control room operations environments

UAN:	H/600/1851
Level:	Level 2
Credit value:	3
GLH:	4
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to respond appropriately when an incident has been identified
Assessment criteria
The learner can: 1.1 Identify the nature, location and scope of incident 1.2 Raise the appropriate alarms 1.3 Act promptly and in association with others

Learning outcome
The learner will: 2. Be able to communicate information in a timely and appropriate way
Assessment criteria
The learner can: 2.1 Report the incident to the appropriate people in accordance with plant reporting procedures 2.2 Provide accurate and unambiguous information to the appropriate people 2.3 Complete all relevant documentation

Learning outcome
The learner will: 3. Be able to respond appropriately during an incident
Assessment criteria
The learner can: 3.1 Inform appropriate people as actions are taken 3.2 Modify actions appropriately in response to changing conditions

Learning outcome
The learner will: 4. Be able to minimise the impact of an incident
Assessment criteria
The learner can: 4.1 Minimise the incident, hazard or emergency 4.2 Minimise waste and loss

Learning outcome
The learner will: 5. Be able to follow organisational, operational and statutory procedures
Assessment criteria
The learner can: 5.1 Work safely in accordance with operational requirements 5.2 Follow appropriate procedures after the situation has been assessed 5.3 Take the correct actions, in accordance with procedures, to make the process safe 5.4 Take the correct actions, in accordance with procedures, to deal with the incident

Unit 202 Respond to incidents, hazardous conditions and emergencies within downstream control room operations environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Respond to Incidents, Hazardous Conditions and Emergencies Within Downstream Control Room Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Reporting lines and procedures to include:

- fire
- flood
- toxic vapour and/or liquid release
- uncontrolled release of product
- explosions
- injured personnel
- major plant or service failure.

Operational requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 203 How to respond to incidents, hazardous conditions and emergencies within downstream control room operations environments

UAN:	M/600/1853
Level:	Level 2
Credit value:	3
GLH:	28
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know the potential incidents that could occur and which of these should be reported
Assessment criteria
The learner can: 1.1 Identify the potential incidents within their area of responsibility and the actions to be taken 1.2 Identify the types of incidents which should be reported

Learning outcome
The learner will: 2. Know how to respond appropriately when an incident has been identified
Assessment criteria
The learner can: 2.1 Explain the procedure for responding at an early stage of an incident 2.2 Describe how the alarm should be raised for each type of incident 2.3 Explain the need for and use of emergency equipment 2.4 Explain the appropriate first response to casualties

Learning outcome
The learner will: 3. Know how to communicate information effectively
Assessment criteria
The learner can: 3.1 Explain how to communicate effectively, including: • verbal • written 3.2 Identify: • what information needs to be communicated • who to communicate information to

Learning outcome
The learner will: 4. Know how an incident will impact on organisational resources
Assessment criteria
The learner can: 4.1 Explain the effect of the emergency on: • plant • equipment • personnel

Learning outcome
The learner will: 5. Know how to follow organisational procedures
Assessment criteria
The learner can: 5.1 Describe the implications of statutory (e.g. HASAWA, COMAH and COSHH) and organisational and operational requirements 5.2 Explain how to access, interpret and implement site emergency plans; environmental procedures; plant emergency procedures 5.3 Explain the emergency procedures for plant and site 5.4 Identify their own responsibilities during emergencies

Unit 203 How to respond to incidents, hazardous conditions and emergencies within downstream control room operations environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Reporting lines and procedures to include:

- fire
- flood
- toxic vapour and/or liquid release
- uncontrolled release of product
- explosions
- injured personnel
- major plant or service failure.

Operational requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 204 Work Effectively in a Team Within Downstream Control Room Operations Environments

UAN:	T/600/1854
Level:	Level 2
Credit value:	4
GLH:	4
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to carry out checks prior to undertaking an activity
Assessment criteria
The learner can: 1.1 Ensure that all personnel, including self, know, understand and agree responsibilities when undertaking an activity 1.2 Check that the work activity is understood 1.3 Check that the required authority to complete the required activity is obtained

Learning outcome
The learner will: 2. Be able to minimise disruptions
Assessment criteria
The learner can: 2.1 Work within agreed time schedules 2.2 Ensure that the activity proceeds as planned

Learning outcome
The learner will: 3. Be able to use and monitor the effectiveness of communication methods at all times
Assessment criteria
The learner can: 3.1 Check the need to inform others who may be affected by an activity 3.2 Use appropriate methods of communication to keep personnel informed 3.3 Check that all personnel have received the necessary information 3.4 Keep other relevant personnel informed of the progress of the activity

Learning outcome
The learner will: 4. Be able to deal with problems
Assessment criteria
The learner can: 4.1 Deal promptly and effectively with any problems in the activity that are their responsibility 4.2 Inform the appropriate person of any problems that cannot be solved and/or are not their responsibility 4.3 Take appropriate action when disagreement occurs

Learning outcome
The learner will: 5. Be able to assist others
Assessment criteria
The learner can: 5.1 Identify when assistance is required 5.2 Give assistance when required if it is within the limit of their authority

Learning outcome
The learner will: 6. Be able to liaise with, and support, others
Assessment criteria
The learner can: 6.1 Give constructive support and feedback to appropriate personnel 6.2 Receive support and feedback from personnel

Learning outcome
The learner will: 7. Be able to follow organisational and operational procedures
Assessment criteria
The learner can: 7.1 Follow safe working procedures at all times with regard to material, equipment and personal safety 7.2 Complete any required documentation clearly and accurately

Unit 204 Work Effectively in a Team Within Downstream Control Room Operations Environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Work Effectively in a Team Within Downstream Control Room Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 205 How to facilitate the maintenance of plant and equipment within downstream control room operations environments

UAN:	J/600/3270
Level:	Level 2
Credit value:	2
GLH:	20
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know how operational requirements impact on maintenance
Assessment criteria
The learner can: 1.1 Describe the operating principles of all relevant equipment 1.2 Explain the plant and equipment operating procedures 1.3 Explain how to interpret operational requirements

Learning outcome
The learner will: 2. Know how to facilitate maintenance and work safely when carrying out the activity
Assessment criteria
The learner can: 2.1 Identify the types of equipment to be maintained 2.2 Describe the importance of using correct work methods 2.3 Explain why work has to be carried out under permit control 2.4 Explain why relevant personnel have to be informed of equipment status

Learning outcome
The learner will: 3. Know how to follow organisational, operational and regulatory procedures
Assessment criteria
The learner can: 3.1 Explain how to select, use and care for PPE 3.2 Explain why it is necessary to follow site procedures (e.g. use of log books; check sheets) 3.3 Describe the implications of statutory (e.g. HASAWA, COMAH and COSHH) and organisational requirements 3.4 Identify the limits of their own responsibility and authority

Unit 205 How to facilitate the maintenance of plant and equipment within downstream control room operations environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Equipment should include:

- rotating
- non-rotating
- heat transfer
- control.

Unit 206 Facilitate the maintenance of plant and equipment within downstream control room operations environments

UAN:	R/600/3269
Level:	Level 2
Credit value:	2
GLH:	4
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to use and complete documentation
Assessment criteria
The learner can: 1.1 Obtain all documentation which allows the maintenance to be carried out 1.2 Consult written records as appropriate 1.3 Complete all relevant documentation

Learning outcome
The learner will: 2. Be able to facilitate maintenance safely
Assessment criteria
The learner can: 2.1 Facilitate maintenance, using appropriate tools, in accordance with procedures and schedules 2.2 Leave plant and equipment in a safe condition

Learning outcome
The learner will: 3. Be able to identify and deal with irregularities
Assessment criteria
The learner can: 3.1 Identify abnormal performance 3.2 Monitor and record faults 3.3 Take appropriate corrective action

Learning outcome
The learner will: 4. Be able to work within the scope of authority
Assessment criteria
The learner can: 4.1 Request help and consult with appropriate personnel

Learning outcome
The learner will: 5. Be able to follow organisational, operational and regulatory procedures
Assessment criteria
The learner can: 5.1 Work safely in accordance with operational requirements 5.2 Ensure that routine maintenance has minimal effect on production objectives 5.3 Wear the appropriate PPE

Unit 206 Facilitate the maintenance of plant and equipment within downstream control room operations environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Facilitate the Maintenance of Plant and Equipment within Downstream Control Room Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Equipment should include:

- rotating
- non-rotating
- heat transfer
- control.

Unit 207 Respond to Incidents, Hazardous Conditions and Emergencies Within Downstream Field Operations Environments

UAN:	**F/600/3042**
Level:	Level 2
Credit value:	3
GLH:	4
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to respond appropriately when an incident has been identified
Assessment criteria
The learner can: 1.1 Identify the nature, location and scope of incident 1.2 Raise the appropriate alarms 1.3 Act promptly and in association with others

Learning outcome
The learner will: 2. Be able to communicate information in a timely and appropriate way
Assessment criteria
The learner can: 2.1 Report the incident to the appropriate people in accordance with plant reporting procedures 2.2 Provide accurate and unambiguous information to the appropriate people 2.3 Complete all relevant documentation

Learning outcome
The learner will: 3. Be able to respond appropriately during an incident
Assessment criteria
The learner can: 3.1 Inform appropriate people as actions are taken 3.2 Modify actions appropriately in response to changing conditions

Learning outcome
The learner will: 4. Be able to minimise the impact of an incident
Assessment criteria
The learner can: 4.1 Minimise the incident, hazard or emergency 4.2 Minimise waste and loss

Learning outcome
The learner will: 5. Be able to follow organisational, operational and statutory procedures
Assessment criteria
The learner can: 5.1 Work safely in accordance with operational requirements 5.2 Follow appropriate procedures after the situation has been assessed 5.3 Take the correct actions, in accordance with procedures, to make the process safe 5.4 Take the correct actions, in accordance with procedures, to deal with the incident 5.5 Wear the correct PPE

Unit 207 Respond to Incidents, Hazardous Conditions and Emergencies Within Downstream Field Operations Environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Respond to Incidents, Hazardous Conditions and Emergencies within Downstream Field Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Reporting lines and procedures to include:

- fire
- flood
- toxic vapour and/or liquid release
- uncontrolled release of product
- explosions
- injured personnel
- major plant or service failure.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Operational requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 208 How to Respond to Incidents, Hazardous Conditions and Emergencies Within Downstream Field Operations Environments

UAN:	**J/600/3043**
Level:	Level 2
Credit value:	3
GLH:	28
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know the potential incidents that could occur and which of these should be reported
Assessment criteria
The learner can: 1.1 Identify the potential incidents within their area of responsibility and the actions to be taken 1.2 Identify the types of incidents which should be reported

Learning outcome
The learner will: 2. Know how to respond appropriately when an incident has been identified
Assessment criteria
The learner can: 2.1 Explain the procedure for responding at an early stage of an incident 2.2 Describe how the alarm should be raised for each type of incident 2.3 Explain the need for and use of emergency equipment 2.4 Explain the appropriate first response to casualties

Learning outcome
The learner will: 3. Know how to communicate information effectively
Assessment criteria
The learner can: 3.1 Explain how to communicate effectively, including: • verbal • written 3.2 Identify: • what information needs to be communicated • who to communicate information to

Learning outcome
The learner will: 4. Know how an incident will impact on organisational resources
Assessment criteria
The learner can: 4.1 Explain the effect of the emergency on: • plant • equipment • personnel

Learning outcome
The learner will: 5. Know how to follow organisational procedures
Assessment criteria
The learner can: 5.1 Explain how to select, use and care for PPE 5.2 Describe the implications of statutory (eg HASAWA and COSHH) and organisational and operational requirements 5.3 Explain how to access, interpret and implement site emergency plans; environmental procedures; plant emergency procedures 5.4 Explain the emergency procedures for plant and site 5.5 Identify their own responsibilities during emergencies

Unit 208 How to Respond to Incidents, Hazardous Conditions and Emergencies Within Downstream Field Operations Environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Reporting lines and procedures to include:

- fire
- flood
- toxic vapour and/or liquid release
- uncontrolled release of product
- explosions
- injured personnel
- major plant or service failure.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Operational requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 209 Work Effectively in a Team Within Downstream Field Operations Environments

UAN:	**L/600/3044**
Level:	Level 2
Credit value:	4
GLH:	4
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to carry out checks prior to undertaking an activity
Assessment criteria
The learner can: 1.1 Ensure that all personnel, including self, know, understand and agree responsibilities when undertaking an activity 1.2 Check that the work activity is understood 1.3 Check that the required authority to complete the required activity is obtained

Learning outcome
The learner will: 2. Be able to minimise disruptions
Assessment criteria
The learner can: 2.1 Work within agreed time schedules 2.2 Ensure that the activity proceeds as planned

Learning outcome
The learner will: 3. Be able to use and monitor the effectiveness of communication methods at all times
Assessment criteria
The learner can: 3.1 Check the need to inform others who may be affected by an activity 3.2 Use appropriate methods of communication to keep personnel informed 3.3 Check that all personnel have received the necessary information 3.4 Keep other relevant personnel informed of the progress of the activity

Learning outcome
The learner will: 4. Be able to deal with problems
Assessment criteria
The learner can: 4.1 Deal promptly and effectively with any problems in the activity that are their responsibility 4.2 Inform the appropriate person of any problems that cannot be solved and/or are not their responsibility 4.3 Take appropriate action when disagreement occurs

Learning outcome
The learner will: 5. Be able to assist others
Assessment criteria
The learner can: 5.1 Identify when assistance is required 5.2 Give assistance when required if it is within the limit of their authority

Learning outcome
The learner will: 6. Be able to liaise with, and support, others
Assessment criteria
The learner can: 6.1 Give constructive support and feedback to appropriate personnel 6.2 Receive support and feedback from personnel

Learning outcome
The learner will: 7. Be able to follow organisational and operational procedures
Assessment criteria
The learner can: 7.1 Follow safe working procedures at all times with regard to material, equipment and personal safety 7.2 Complete any required documentation clearly and accurately

Unit 209 Work Effectively in a Team Within Downstream Field Operations Environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Work Effectively in a Team Within Downstream Field Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 210 How to Work Effectively in a Team Within Downstream Field Operations Environments

UAN:	**Y/600/3046**
Level:	Level 2
Credit value:	4
GLH:	34
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know how to carry out checks prior to undertaking an activity
Assessment criteria
The learner can: 1.1 Identify how to check that all parties, including self, understand what is required of them and what their responsibilities are 1.2 Explain why it is important that personnel know what is required of them 1.3 Identify the methods of monitoring the activity 1.4 Explain the method of work activity planned

Learning outcome
The learner will: 2. Know how to minimise disruptions
Assessment criteria
The learner can: 2.1 Explain the importance of keeping to agreed time schedules

Learning outcome
The learner will: 3. Know how to use and monitor the effectiveness of communication methods at all times
Assessment criteria
The learner can: 3.1 Describe how to check whether others need to be informed 3.2 Identify the methods of communication within the organisation and when and how to use them 3.3 Explain how to keep all relevant personnel informed of the progress of the activity

Learning outcome
The learner will: 4. Know how to deal with problems
Assessment criteria
The learner can: 4.1 Describe what typical problems may arise that are their responsibility and how to deal with them 4.2 Identify who to inform if the problem cannot be solved and/or responsibility and/or authority is exceeded 4.3 Explain why it is important to deal with problems effectively 4.4 Explain what actions could be taken when disagreement occurs

Learning outcome
The learner will: 5. Know how to assist others
Assessment criteria
The learner can: 5.1 Describe how to identify when assistance may be required 5.2 Explain how to give assistance within the limit of their authority

Learning outcome
The learner will: 6. Know how to liaise with, and support, others
Assessment criteria
The learner can: 6.1 Explain why it is important to give constructive feedback and support in the operation 6.2 Explain how to give, and take, constructive feedback and support within the organisation

Learning outcome
The learner will: 7. Know how to follow organisational, operational and regulatory procedures
Assessment criteria
The learner can: 7.1 Explain personal responsibilities with regard to health, safety, environment and activities 7.2 Describe the meaning of responsibility and authority in the organisation 7.3 Explain how to check the level of authority and limit of responsibility required to undertake works 7.4 Identify what documentation to use and what information needs to be recorded 7.5 Explain the importance of completing documentation/records accurately and clearly 7.6 Explain how to select, use and care for PPE 7.7 Describe the implications of statutory (e.g. HASAWA and COSHH) and organisational and operational requirements and explain how to comply with them 7.8 Explain the emergency procedures for plant and site

Unit 210 How to Work Effectively in a Team Within Downstream Field Operations Environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 211 Carry Out Maintenance Within Agreed Scope of Authority Within Downstream Field Operations Environments

UAN:	M/600/3327
Level:	Level 2
Credit value:	2
GLH:	4
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to use and complete documentation
Assessment criteria
The learner can: 1.1 Obtain all documentation which allows the maintenance to be carried out 1.2 Consult written records as appropriate 1.3 Complete all relevant documentation

Learning outcome
The learner will: 2. Be able to carry out maintenance safely
Assessment criteria
The learner can: 2.1 Carry out maintenance, using appropriate tools, in accordance with procedures and schedules 2.2 Leave plant and equipment in a safe condition

Learning outcome
The learner will: 3. Be able to identify and deal with irregularities
Assessment criteria
The learner can: 3.1 Identify abnormal performance 3.2 Monitor and record faults 3.3 Take appropriate corrective action

Learning outcome
The learner will: 4. Be able to work within the scope of authority
Assessment criteria
The learner can: 4.1 Request help and consult with appropriate personnel

Learning outcome
The learner will: 5. Be able to follow organisational, operational and regulatory procedures
Assessment criteria
The learner can: 5.1 Work safely in accordance with operational requirements 5.2 Ensure that routine maintenance has minimal effect on production objectives 5.3 Wear the appropriate PPE

Unit 211 Carry Out Maintenance Within Agreed Scope of Authority Within Downstream Field Operations Environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Carry Out Maintenance within Agreed Scope of Authority Within Downstream Field Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Equipment should include:

- rotating
- non-rotating
- heat transfer
- control.

Unit 212 How to Carry Out Maintenance Within Agreed Scope of Authority Within Downstream Field Operations Environments

UAN:	T/600/3328
Level:	Level 2
Credit value:	2
GLH:	20
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know how operational requirements impact on maintenance
Assessment criteria
The learner can: 1.1 Describe the operating principles of all relevant equipment 1.2 Explain the plant and equipment operating procedures 1.3 Explain how to interpret operational requirements

Learning outcome
The learner will: 2. Know how to carry out maintenance and work safely when carrying out the activity
Assessment criteria
The learner can: 2.1 Identify the types of equipment to be maintained 2.2 Describe the importance of using: • correct work methods • hand tools • the correct materials 2.3 Explain why work has to be carried out under permit control 2.4 Explain why relevant personnel have to be informed of equipment status

Learning outcome
The learner will: 3. Know how to follow organisational, operational and regulatory procedures
Assessment criteria
The learner can: 3.1 Explain how to select, use and care for PPE 3.2 Explain why it is necessary to follow site procedures (e.g. use of log books; check sheets) 3.3 Describe the implications of statutory (e.g. HASAWA and COSHH) and organisational requirements 3.4 Identify the limits of their own responsibility and authority

Unit 212 How to Carry Out Maintenance Within Agreed Scope of Authority Within Downstream Field Operations Environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Equipment should include:

- rotating
- non-rotating
- heat transfer
- control.

Unit 213 Provide Samples For Analysis Within Downstream Field Operations Environments

UAN:	M/600/3330
Level:	Level 2
Credit value:	2
GLH:	4
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to prepare to take samples for analysis
Assessment criteria
The learner can: 1.1 Inform appropriate people that samples are being taken 1.2 Obtain containers that are appropriate for the sample material 1.3 Ensure that containers obtained are fit for purpose before use

Learning outcome
The learner will: 2. Be able to take samples effectively
Assessment criteria
The learner can: 2.1 Take samples using the appropriate specified method 2.2 Take samples which match the schedule instructions 2.3 Ensure that samples taken are representative 2.4 Leave sample points in a clean and safe condition ready for re-use

Learning outcome
The learner will: 3. Be able to maintain the validity of the sample
Assessment criteria
The learner can: 3.1 Ensure that the sample is: • fully identified • promptly taken to the designated point • recorded and labelled 3.2 Ensure that the integrity of the sample is maintained

Learning outcome
The learner will: 4. Be able to take account of safety issues when taking samples
Assessment criteria
The learner can: 4.1 Identify the location of the nearest safety equipment 4.2 Obtain and use the appropriate clothing and equipment correctly 4.3 Minimise the potential hazards according to the nature of the sample

Learning outcome
The learner will: 5. Be able to use and complete relevant documentation
Assessment criteria
The learner can: 5.1 Comply with the requirements stated in the appropriate documentation 5.2 Complete all relevant documentation

Learning outcome
The learner will: 6. Be able to follow operational and organisational procedures
Assessment criteria
The learner can: 6.1 Work safely in accordance with operational requirements

Unit 213 Provide Samples For Analysis Within Downstream Field Operations Environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Provide Samples for Analysis within Downstream Field Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Documentation should include:

- the sample schedule
- labels.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Statutory and Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 214 How to Provide Samples For Analysis Within Downstream Field Operations Environments

UAN:	T/600/3331
Level:	Level 2
Credit value:	2
GLH:	20
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know how to prepare to take samples for analysis
Assessment criteria
The learner can: 1.1 Explain the importance of informing the appropriate people 1.2 Identify the different types of container used and their specific uses

Learning outcome
The learner will: 2. Know how to take samples effectively
Assessment criteria
The learner can: 2.1 Describe how to take samples in the most time-economical manner 2.2 Explain the importance of matching schedule and instructions when sampling and analysing

Learning outcome
The learner will: 3. Know how to maintain the validity of the sample
Assessment criteria
The learner can: 3.1 Describe how to maintain sample integrity 3.2 Explain the need for and the importance of well maintained equipment

Learning outcome
The learner will: 4. Know how to take account of safety issues when taking samples
Assessment criteria
The learner can: 4.1 Identify the potential incidents which might occur while taking samples and the actions required 4.2 Explain the consequences of not following the sampling procedure 4.3 Explain the reasons for not taking samples according to schedule

Learning outcome
The learner will: 5. Know how to use documentation
Assessment criteria
The learner can: 5.1 Explain how to access and interpret the appropriate documentation

Learning outcome
The learner will: 6. Know how to follow operational, organisational and regulatory procedures
Assessment criteria
The learner can: 6.1 Explain the need for appropriate PPE 6.2 Explain how to select, use and care for PPE 6.3 Describe the implications of statutory (e.g. HASAWA and COSHH) and organisational requirements and explain how to comply with them

Unit 214 How to Provide Samples For Analysis Within Downstream Field Operations Environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Documentation should include:

- the sample schedule
- labels.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Statutory and Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 215 How to Analyse Samples Within Downstream Field Operations Environments

UAN:	L/600/3335
Level:	Level 2
Credit value:	2
GLH:	15
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know how to prepare the equipment for analysing samples
Assessment criteria
The learner can: 1.1 Explain how to ensure that analysis equipment is fit for purpose 1.2 Explain why it is essential to clean equipment

Learning outcome
The learner will: 2. Know how to analyse samples and the safety requirements during the activity
Assessment criteria
The learner can: 2.1 Explain the principles of analysis 2.2 Describe how to secure and label samples 2.3 Explain the importance of matching schedule and instructions when analysing samples

Learning outcome
The learner will: 3. Know how to deal with problems
Assessment criteria
The learner can: 3.1 Explain the incidents which might occur while analysing samples and the action to be taken 3.2 Identify the possible cause of unexpected results

Learning outcome
The learner will: 4. Know the importance of effective communication
Assessment criteria
The learner can: 4.1 Explain how to communicate effectively 4.2 Identify who to report abnormalities to

Learning outcome
The learner will: 5. Know why it is important to record accurately
Assessment criteria
The learner can: 5.1 Explain the likely consequences of recording inaccurately

Learning outcome
The learner will: 6. Know how to follow operational and organisational procedures
Assessment criteria
The learner can: 6.1 Identify the location of nearest safety equipment 6.2 Explain how to select, use and care for PPE 6.3 Describe the implications of statutory (e.g. HASAWA and COSHH) and organisational requirements and explain how to comply with them

Unit 215 How to Analyse Samples Within Downstream Field Operations Environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Analysis Equipment to include:

- type
- accuracy
- measurement range appropriateness to sample characteristics.

Communication should be:

- clear
- accurate
- prompt.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Statutory and Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 301 How to monitor and maintain process and equipment conditions within downstream control room operations environments

UAN:	A/600/3024
Level:	Level 3
Credit value:	4
GLH:	38
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know the role and purpose of consumables when monitoring and maintaining equipment
Assessment criteria
The learner can: 1.1 Describe the specified consumable used in the control room

Learning outcome
The learner will: 2. Know how to access, use and interpret documentation and logs
Assessment criteria
The learner can: 2.1 Explain how to access and use relevant documentation 2.2 Explain the relevance of each log item to the operation of the plant 2.3 Identify how the handover log relates to the plant equipment and process

Learning outcome
The learner will: 3. Know how to record and pass on information
Assessment criteria
The learner can: 3.1 Identify the relevant information to record and its potential impact (eg abnormal consumption) 3.2 Identify the relevant information to record and pass on to others as appropriate

Learning outcome
The learner will: 4. Know how to monitor and maintain process and equipment
Assessment criteria
The learner can: 4.1 Explain the principles and practice of process control 4.2 Explain the principles and practice of equipment inspection in working areas 4.3 Identify the parameters to be measured and where those measurements should be taken 4.4 Explain the reasons for taking particular readings and measurements and their significance 4.5 Describe the appropriate timescale for making adjustments 4.6 Describe the action required on off-specification material 4.7 Identify the limits of adjustments to process and utilities

Learning outcome
The learner will: 5. Know how to work safely when monitoring and maintaining equipment
Assessment criteria
The learner can: 5.1 Describe how to keep the equipment and process within given tolerances 5.2 Explain the effects of exceeding tolerance levels 5.3 Explain the potential impact of process deviations on other areas, for example, the interconnected items of equipment that support the process 5.4 Explain the potential hazards during normal operation and the actions to be taken

Learning outcome
The learner will: 6. Know how to work within organisational and operational procedures
Assessment criteria
The learner can: 6.1 Describe their responsibilities in relation to their work area 6.2 Explain the implications of statutory (e.g. HASAWA, COMAH and COSHH) and organisational requirements and explain how to comply with them

Unit 301 How to monitor and maintain process and equipment conditions within downstream control room operations environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Responsibilities for work area to include:

- plant steady
- plant unsteady
- start-up
- shut-down
- on-grade product
- off-grade product.

Information to record and pass on may include:

- log books
- readings sheets
- measurements outside acceptable tolerances
- adjustments made.

Documentation could include:

- handover logs
- permits
- other specified recording documentation.

Statutory and Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 302 How to prepare for maintenance within downstream control room operations environments

UAN:	D/600/3033
Level:	Level 3
Credit value:	5
GLH:	50
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know how to prepare for maintenance activities
Assessment criteria
The learner can: 1.1 Explain how to interpret operational requirements 1.2 Identify the equipment relevant to their work area 1.3 Explain why controlled entry to work area is required 1.4 Describe how and when to cordon off a work area 1.5 Describe the isolation techniques for all relevant items of equipment

Learning outcome
The learner will: 2. Know how to carry out checks
Assessment criteria
The learner can: 2.1 Explain how to carry out checks and tests 2.2 Explain the implications of commencing work in an area that is not prepared

Learning outcome
The learner will: 3. Know how to accept back equipment and the work area
Assessment criteria
The learner can: 3.1 Explain the implications of accepting back incomplete equipment 3.2 Explain how the operation of incomplete equipment affects the work activity 3.3 Explain why work area must be handed back in accordance with the permit conditions

Learning outcome
The learner will: 4. Know how to identify hazards
Assessment criteria
The learner can: 4.1 Explain how to identify hazards within the work area 4.2 Describe how hazardous conditions can arise in a previously prepared area

Learning outcome
The learner will: 5. Know why it is important to work safely
Assessment criteria
The learner can: 5.1 Explain why it is necessary to follow site procedures 5.2 Explain the importance of using: • the correct work methods • hand tools • the correct materials 5.3 Explain why relevant personnel have to be informed of equipment status 5.4 Explain why work has to be carried out under permit control

Learning outcome
The learner will: 6. Know how operating conditions affect maintenance preparation
Assessment criteria
The learner can: 6.1 Explain the operating conditions and principles of relevant equipment which may impact on the work area 6.2 Explain the operating conditions and parameters of the work area 6.3 Explain the effect of operating conditions on equipment preparation 6.4 Explain the operating principles of relevant equipment

Learning outcome
The learner will: 7. Know how to deal with abnormalities
Assessment criteria
The learner can: 7.1 Identify how to deal with abnormal occurrences during: • isolation • draining • purging • flushing • venting

Learning outcome
The learner will: 8. Know how to communicate appropriate information effectively
Assessment criteria
The learner can: 8.1 Identify the information required by maintenance personnel for the equipment to be worked on 8.2 Explain how to pass on: • details of the equipment to be prepared • advice about significant delays 8.3 Explain why people need to be informed of work about to commence

Learning outcome
The learner will: 9. Know how to follow organisational and regulatory procedures
Assessment criteria
The learner can: 9.1 Describe the implications of statutory (e.g. HASAWA, COMAH and COSHH) and organisational requirements, and explain how to comply with them 9.2 Explain why permits associated with the activity have to be completed 9.3 Identify the limits of their own responsibility and authority

Unit 302 How to prepare for maintenance within downstream control room operations environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Equipment should include:

- rotating
- non-rotating
- heat transfer
- control.

Checks and tests could include:

- visual inspection
- line up
- equipment integrity tests.

Statutory and Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Site Procedures could include:

- use of log books
- check sheets.

Unit 303 Handle non-routine information on plant condition within downstream control room operations environments

UAN:	F/600/3025
Level:	Level 3
Credit value:	3
GLH:	4
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to record and document relevant information
Assessment criteria
The learner can: 1.1 Record the actions required to solve the problem

Learning outcome
The learner will: 2. Be able to process information relating to plant conditions
Assessment criteria
The learner can: 2.1 Gather all relevant information from the appropriate sources 2.2 Provide prompt, accurate and clear information on plant status to the appropriate people 2.3 Interpret the available information and provide relevant solutions to the problem

Learning outcome
The learner will: 3. Be able to perform checks and analyse problems
Assessment criteria
The learner can: 3.1 Perform all relevant checks 3.2 Take the appropriate panel readings correctly 3.3 Analyse the problem in a systematic and effective manner 3.4 Establish the actions required to solve the problem 3.5 Fit any additional monitoring equipment correctly

Learning outcome
The learner will: 4. Be able to communicate information effectively to the relevant people in a timely manner
Assessment criteria
The learner can: 4.1 Inform all relevant people: • that the panel readings are being taken and of any possible impact on them • of the problem, its solution and any possible impact on them 4.2 Provide prompt, accurate and clear information on plant status to the appropriate people 4.3 Pass records to the appropriate people where no further personal action is required

Learning outcome
The learner will: 5. Be able to follow organisational and operational procedures
Assessment criteria
The learner can: 5.1 Work safely in accordance with operational requirements

Unit 303 Handle non-routine information on plant condition within downstream control room operations environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Handle Non-routine Information on Plant Condition within Downstream Control Room Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Information could be accessed from:

- process and instrumentation diagrams
- plant and equipment operating procedures
- plant operating manuals.

Sources of information could include:

- appropriate people
- readings
- surveys
- records
- reports.

Statutory and Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 304 How to start up equipment within downstream control room operations environments

UAN:	J/600/1860
Level:	Level 3
Credit value:	5
GLH:	48
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know how to prepare to start up equipment
Assessment criteria
The learner can: 1.1 Explain the start-up and operating procedures for the equipment, including how to override the start-up process 1.2 Describe the function of the equipment to be started in the operation of the plant and process 1.3 Explain the reasons for the defined sequence in the start-up and the consequences of not following it 1.4 Describe why it is important to be familiar with the plant layout and operation manuals

Learning outcome
The learner will: 2. Know the range of factors to take into account when starting up equipment
Assessment criteria
The learner can: 2.1 Explain the line up and control systems as on process and instrumentation diagrams 2.2 Identify the properties of the material contained in the equipment 2.3 Explain the trip systems and logic sequences 2.4 Identify the possible process excursions and acceptable tolerances 2.5 Explain the parameters to be measured, checked and the acceptable tolerances (e.g. equipment integrity tests; line-up)

Learning outcome
The learner will: 3. Know the importance of the operating conditions when starting up equipment
Assessment criteria
The learner can: 3.1 Identify the normal range of operating conditions and acceptable conditions 3.2 Explain the reasons for achieving conditions for each stage within a given timescale 3.3 Explain the consequences of correct conditions not being achieved 3.4 Explain the reasons for operating equipment to specified conditions

Learning outcome
The learner will: 4. Know how to communicate effectively in a range of conditions
Assessment criteria
The learner can: 4.1 Explain the appropriate selection and effective use of communication links between operators and relevant others 4.2 Identify the nature and extent of information to be communicated (e.g. status of start-up equipment; status of interconnected plant and equipment) 4.3 Explain the importance of clarity and accuracy when communicating information

Learning outcome
The learner will: 5. Know how to document and record information
Assessment criteria
The learner can: 5.1 Describe how to access relevant documentation (e.g. permits; standard operating procedures) 5.2 Identify the location of equipment records and methods of recording 5.3 Explain the reasons for recording the equipment conditions

Learning outcome
The learner will: 6. Know how to deal with abnormal conditions and hazards
Assessment criteria
The learner can: 6.1 Describe how to identify abnormal conditions (to include those associated with mechanical, electrical and instrument integrity) 6.2 Explain the potential hazards and the actions to be taken: • during start-up • during checks and tests 6.3 Describe the actions to be taken when a hazard has been identified and consequences of delayed response to hazards 6.4 Identify the availability of standby equipment

Learning outcome
The learner will: 7. Know how to follow organisational and operational procedures
Assessment criteria
The learner can: 7.1 Explain how to select, use and care for PPE 7.2 Describe the implications of statutory (e.g. HASAWA and COSHH) and organisational and operational requirements 7.3 Describe the emergency procedures 7.4 Describe the alarm systems and the appropriate responses to alarm conditions 7.5 Explain how to identify the need for appropriate assistance and where to find it

Unit 304 How to start up equipment within downstream control room operations environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Checks and tests could include:

- visual inspection
- equipment integrity tests
- line-up.

Communication could include:

- face to face
- telephone
- radio
- written.

Operational requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Plant and equipment to include:

- rotating
- non-rotating and storage
- heat transfer
- control
- start-up procedures.

Unit 305 Contribute to the safety of the processing environment within downstream control room operations environments

UAN:	K/600/1768
Level:	Level 3
Credit value:	3
GLH:	4
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to identify and deal with safety hazards
Assessment criteria
The learner can: 1.1 Identify the safety hazards 1.2 Take appropriate action on the identification of safety hazards

Learning outcome
The learner will: 2. Be able to use and care for safety and emergency equipment
Assessment criteria
The learner can: 2.1 Ensure that safety and emergency equipment are fit for purpose 2.2 Use all relevant safety and emergency equipment correctly 2.3 Return safety and emergency equipment to designated areas after use and report any defects 2.4 Access and use additional resources as appropriate

Learning outcome
The learner will: 3. Be able to keep all working areas clear and tidy at all times
Assessment criteria
The learner can: 3.1 Ensure that access to and egress from working area is maintained at all times 3.2 Keep all escape routes and access to emergency and safety equipment clear 3.3 Keep the working area clean and tidy in accordance with requirements

Learning outcome
The learner will: 4. Be able to discharge substances safely and so that the environment is protected
Assessment criteria
The learner can: 4.1 Advise and consult with appropriate personnel prior to any discharge or emission 4.2 Ensure that: • the amount of gas and liquid discharged is within required limits • the amount of pollutant discharged into dedicated drainage systems is within required limits • the level of atmospheric emissions is within required limits 4.3 Ensure that noise levels are minimised by taking appropriate action

Learning outcome
The learner will: 5. Be able to follow organisational procedures
Assessment criteria
The learner can: 5.1 Work safely in accordance with operational requirements 5.2 Use specified PPE correctly in designated areas, as appropriate 5.3 Ensure that only authorised people are allowed access to the work area 5.4 Use safe manual handling methods

Unit 305 Contribute to the safety of the processing environment within downstream control room operations environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Contribute to the Safety of the Processing Environment Within Downstream Control Room Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

PPE to include:

- respirators.

Safety Equipment could include:

- gas detection equipment
- fire fighting equipment.

Unit 306 Monitor and maintain process and equipment conditions within downstream control room operations environments

UAN:	K/600/3021
Level:	Level 3
Credit value:	3
GLH:	4
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to carry out the handover of responsibilities
Assessment criteria
The learner can: 1.1 Carry out the handover with appropriate people at the designated time and location 1.2 Ensure that the information exchanged provides a full, clear and accurate description of the current status of the work area 1.3 Clarify and confirm any information that is unclear or conflicting **before** acceptance

Learning outcome
The learner will: 2. Be able to maintain the levels of consumables
Assessment criteria
The learner can: 2.1 Maintain the level and concentration of consumables 2.2 Perform stock checks of consumables in accordance with requirements 2.3 Use and store consumables correctly

Learning outcome
The learner will: 3. Be able to maintain process conditions within work area
Assessment criteria
The learner can: 3.1 Complete all routine checks at the earliest opportunity 3.2 Maintain the specified conditions within given tolerances for each piece of equipment 3.3 Carry out all relevant adjustments and inform the relevant people as appropriate 3.4 Ensure, through timely and appropriate adjustments, that the process is operating within the given tolerances 3.5 Leave equipment safe and clean on conclusion of operation 3.6 Identify the implications of changing plant conditions on further work

Learning outcome
The learner will: 4. Be able to follow organisational and operational procedures
Assessment criteria
The learner can: 4.1 Work safely in accordance with operational requirements 4.2 Use the appropriate operating procedures for designated checks and adjustments correctly 4.3 Complete all relevant documentation 4.4 Acknowledge and respond to alarms properly

Unit 306 Monitor and maintain process and equipment conditions within downstream control room operations environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Monitor and Maintain Process and Equipment Conditions Within Downstream Control Room Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Responsibilities for work area to include:

- plant steady
- plant unsteady
- start-up
- shut-down
- on-grade product
- off-grade product.

Information to record and pass on may include:

- log books
- readings sheets
- measurements outside acceptable tolerances
- adjustments made.

Documentation could include:

- handover logs
- permits
- other specified recording documentation.

Statutory and Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules

Unit 307 Start up equipment within downstream control room operations environments

UAN:	L/600/1858
Level:	Level 3
Credit value:	4
GLH:	5
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to prepare to start up equipment
Assessment criteria
The learner can: 1.1 Obtain relevant authorisation for start-up to proceed 1.2 Correctly identify equipment and check status 1.3 Identify the locations of emergency isolation valves and their reset mechanisms 1.4 Inform appropriate personnel that start-up is imminent 1.5 Line up the equipment correctly

Learning outcome
The learner will: 2. Be able to deal with discrepancies in the paperwork
Assessment criteria
The learner can: 2.1 Identify any discrepancies between the plant drawings and the procedures 2.2 Report any discrepancies to the appropriate personnel

Learning outcome
The learner will: 3. Be able to start up equipment
Assessment criteria
The learner can: 3.1 Start up equipment in accordance with specified procedures 3.2 Achieve normal operating conditions within required timescale 3.3 Achieve operational conditions at each stage before proceeding to the next

Learning outcome
The learner will: 4. Be able to communicate information during start up
Assessment criteria
The learner can: 4.1 Inform relevant personnel when start-up is complete 4.2 Complete all relevant documentation

Learning outcome
The learner will: 5. Be able to correct abnormal start up conditions
Assessment criteria
The learner can: 5.1 Identify abnormal conditions 5.2 Identify the impact of the abnormality on other areas and inform relevant personnel 5.3 Take prompt and appropriate action to correct the abnormality

Learning outcome
The learner will: 6. Be able to follow organisational and operational
Assessment criteria
The learner can: 6.1 Follow operational procedures for checks and tests 6.2 Work safely in accordance with operational requirements

Unit 307 Start up equipment within downstream control room operations environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Start Up Equipment Within Downstream Control Room Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Checks and tests could include:

- visual inspection
- equipment integrity tests
- line-up.

Communication could include:

- face to face
- telephone
- radio
- written.

Operational requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Plant and equipment to include:

- rotating
- non-rotating and storage
- heat transfer
- control
- start-up procedures.

Unit 308 How to handle non-routine Information on plant condition downstream control room operations environments

UAN:	L/600/3027
Level:	Level 3
Credit value:	5
GLH:	46
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know how to access and use information
Assessment criteria
The learner can: 1.1 Explain how to access a range of information from different sources 1.2 Explain how to identify, gather and understand information which is relevant to the problem 1.3 Explain how to access, interpret and contribute to equipment records

Learning outcome
The learner will: 2. Know how to check the condition of the plant
Assessment criteria
The learner can: 2.1 Identify the operating principles of relevant equipment, to include: • rotating • non-rotating and storage • heat transfer • control 2.2 Describe how to perform the relevant checks, to include: • visual inspection • equipment integrity test 2.3 Explain the need for, and possible outcome of, surveys

Learning outcome
The learner will: 3. Know how to take non-routine panel readings and diagnose faults affecting plant conditions
Assessment criteria
The learner can: 3.1 Explain the operating principles, conditions and parameters of the relevant plant 3.2 Identify the possible causes to be investigated and the order of priority 3.3 Identify the most likely cause of the problem and the appropriate actions to implement 3.4 Explain how to implement a systematic and effective analysis 3.5 Identify what actions to take on identification of abnormal results 3.6 Explain the consequences should the fault not be rectified

Learning outcome
The learner will: 4. Know how to communicate effectively and the consequences of poor communication
Assessment criteria
The learner can: 4.1 Explain the importance of communication 4.2 Describe the consequences of poor and inaccurate communication 4.3 Identify when and how communication links should be used between field operators and others 4.4 Explain the consequences of not producing written and verbal reports within the required timescale 4.5 Explain how to use log books and data sheets effectively

Learning outcome
The learner will: 5. Know how to follow organisational procedures
Assessment criteria
The learner can: 5.1 Explain the implications of statutory (e.g. HASAWA, COMAH and COSHH) and organisational requirements and explain how to comply with them

Unit 308 How to handle non-routine Information on plant condition downstream control room operations environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Information could be accessed from:

- process and instrumentation diagrams
- plant and equipment operating procedures
- plant operating manuals.

Sources of information could include:

- appropriate people
- readings
- surveys
- records
- reports
- field observation.

Statutory and Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 309 How to shut down equipment downstream control room operations environments

UAN:	L/600/3030
Level:	Level 3
Credit value:	5
GLH:	42
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know how to prepare to shutdown equipment
Assessment criteria
The learner can: 1.1 Identify the potential problems and appropriate action to be taken in preparing for shutdown 1.2 Explain the situations when shutdown should not proceed

Learning outcome
The learner will: 2. Know how to access and interpret relevant documentation
Assessment criteria
The learner can: 2.1 Explain how to access relevant documentation 2.2 Identify the plant operating manuals that are relevant 2.3 Explain the plant layout and plant operating manuals

Learning outcome
The learner will: 3. Know how to shut down equipment safely and in a timely manner
Assessment criteria
The learner can: 3.1 Identify the operating conditions and parameters 3.2 Describe the equipment shut down procedures 3.3 Explain the importance of time taken to shut down and isolate item of equipment to specified state 3.4 Explain how to shut down equipment in the correct sequence and the problems that arise if this is not achieved 3.5 Explain the trip systems and logic sequence 3.6 Identify the potential problems and appropriate action to be taken if item of equipment is not shut down correctly 3.7 Explain the consequences if item of equipment is not isolated correctly

Learning outcome
The learner will: 4. Know the effects of shutting down equipment
Assessment criteria
The learner can: 4.1 Explain the effect on the remainder of the plant where the item of equipment is taken out of service 4.2 Explain the effect on plant in adjacent areas

Learning outcome
The learner will: 5. Know how to follow organisational and regulatory procedures
Assessment criteria
The learner can: 5.1 Describe the implications of statutory (e.g. HASAWA, COMAH and COSHH) and organisational requirements, and explain how to comply with them

Unit 309 How to shut down equipment downstream control room operations environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Documentation could include:

- permits
- operating procedures.

Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 310 Shut down equipment downstream control room operations environments

UAN:	R/600/3028
Level:	Level 3
Credit value:	2
GLH:	4
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to prepare to shut down equipment
Assessment criteria
The learner can: 1.1 Obtain appropriate confirmation for shutdown to proceed 1.2 Identify equipment and check status correctly 1.3 Inform all relevant people of possible impact on them due to shutdown 1.4 Inform appropriate personnel that shutdown is imminent

Learning outcome
The learner will: 2. Be able to shut down equipment and deal with abnormal conditions
Assessment criteria
The learner can: 2.1 Shut down equipment in accordance with specified procedures 2.2 Inform appropriate personnel when shutdown is completed to specified state 2.3 Identify, correct and promptly report any abnormality

Learning outcome
The learner will: 3. Be able to follow organisational and operational procedures
Assessment criteria
The learner can: 3.1 Follow procedures for checks and tests 3.2 Work safely in accordance with operational requirements 3.3 Complete all relevant documentation

Unit 310 Shut down equipment downstream control room operations environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Shut Down Equipment Within Downstream Control Room Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Documentation could include:

- permits
- operating procedures.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 311 How to contribute to the safety of the processing environment downstream control room operations environments

UAN:	T/600/1773
Level:	Level 3
Credit value:	5
GLH:	44
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know how to identify hazards
Assessment criteria
The learner can: 1.1 Identify the potential hazards associated with the particular working area and with work procedures 1.2 Identify the types of activity occurring, and possible hazards, in areas adjacent to plant

Learning outcome
The learner will: 2. Know how to take action when a hazard has been identified
Assessment criteria
The learner can: 2.1 Explain: • how to rectify the hazard • the reporting lines when a hazard has been identified • when the work should be discontinued • how to make those affected aware of the problem, including contractors, company personnel and visitors • the appropriate responses to fire and gas alarms on adjacent plant 2.2 Explain the procedures for obtaining medical assistance 2.3 Identify the safety roles of immediate supervisors, colleagues and safety representatives

Learning outcome
The learner will: 3. Know how to use and care for safety equipment and related tools
Assessment criteria
The learner can: 3.1 Describe how to identify and report defects in safety equipment and approved tools 3.2 Explain how to ensure that safety equipment and approved tools are fit for purpose and why they should be used 3.3 Identify when additional resources are needed and how to access and use them

Learning outcome
The learner will: 4. Know how the immediate work environment can impact on safety
Assessment criteria
The learner can: 4.1 Identify how and why it is necessary to keep the working area clean and tidy to a satisfactory standard 4.2 Explain the plant layout in the working area and the position of other relevant areas outside the plant 4.3 Identify the location and position of emergency exits, muster points and emergency equipment 4.4 Explain the procedures for allowing people in the work area

Learning outcome
The learner will: 5. Know how to discharge substances safely
Assessment criteria
The learner can: 5.1 Identify the appropriate personnel to consult and advise regarding discharges and emissions 5.2 Identify the appropriate method of disposal for relevant waste classifications 5.3 Identify the required limits for discharges and emissions into the environment 5.4 Explain the need for discharge and emission limits and the implications of exceeding them 5.5 Describe the classification of waste products

Learning outcome
The learner will: 6. Know how to protect the environment
Assessment criteria
The learner can: 6.1 Explain how the overall environmental system operates, including their responsibilities 6.2 Identify the operating procedures which have the most potential for environmental impact 6.3 Explain how noise levels can be minimised

Learning outcome
The learner will: 7. Know how to follow organisational, operational and regulatory procedures
Assessment criteria
The learner can: 7.1 Describe how to use approved manual handling methods 7.2 Explain how to select, use and care for PPE 7.3 Describe the implications of statutory (e.g. HASAWA and COSHH) and organisational requirements 7.4 Explain how to interpret the operational requirements

Unit 311 How to contribute to the safety of the processing environment downstream control room operations environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

PPE to include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Safety Equipment could include:

- approved site PPE
- safety showers
- eye baths
- gas detection equipment
- fire fighting equipment.

Unit 312 Prepare for maintenance within downstream control room operations environments

UAN:	Y/600/3032
Level:	Level 3
Credit value:	3
GLH:	4
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to prepare equipment
Assessment criteria
The learner can: 1.1 Isolate the correct items from both process and energy sources

Learning outcome
The learner will: 2. Be able to prepare the work area and deal with problems that arise
Assessment criteria
The learner can: 2.1 Prepare the work area as specified in the Permit to Work procedures 2.2 Cancel the permits correctly and promptly when conditions are adversely changed 2.3 Identify any outstanding problems and report these to the appropriate personnel

Learning outcome
The learner will: 3. Be able to accept back equipment
Assessment criteria
The learner can: 3.1 Check the integrity of equipment before accepting back 3.2 Confirm that work area preparations are complete 3.3 Confirm that the work on plant and equipment is complete

Learning outcome
The learner will: 4. Be able to communicate information with the appropriate people
Assessment criteria
The learner can: 4.1 Communicate effectively with appropriate personnel 4.2 Supply the maintenance personnel with all relevant information

Learning outcome
The learner will: 5. Be able to follow organisational and operational procedures
Assessment criteria
The learner can: 5.1 Complete all relevant documentation 5.2 Work safely in accordance with operational requirements 5.3 Ensure that the Permit to Work conditions are fully met

Unit 312 Prepare for maintenance within downstream control room operations environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Prepare for Maintenance Within Downstream Control Room Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Equipment should include:

- rotating
- non-rotating
- heat transfer
- control.

Checks and tests could include:

- line up
- equipment integrity tests.

Statutory and Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Site Procedures could include:

- use of log books
- check sheets.

Unit 313 Carry out advanced control room operations within downstream control room operations environments

UAN:	J/600/3267
Level:	Level 3
Credit value:	3
GLH:	6
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to start up control room operations, including at handover
Assessment criteria
The learner can: 1.1 Check that the operating instructions are as required and that they are clear and complete 1.2 Ensure that the operating parameters are set according to the operating instructions 1.3 Follow any 'handover' procedure before accepting responsibility

Learning outcome
The learner will: 2. Be able to control operations
Assessment criteria
The learner can: 2.1 Follow the correct operating procedure when carrying out control actions 2.2 Follow the correct sequence of actions when carrying out control actions 2.3 Ensure that controls are set correctly as contained in the operating instructions

Learning outcome
The learner will: 3. Be able to maintain process conditions
Assessment criteria
The learner can: 3.1 Monitor and check the process operation at the required intervals 3.2 Maintain the quality, quantity and time schedule of the process 3.3 Ensure that the process operation runs within acceptable limits as specified in the operating instructions 3.4 Check that all of the control equipment/system is in a safe and functional state 3.5 Interpret the results and take corrective action where necessary

Learning outcome
The learner will: 4. Be able to use and complete documentation relevant to control room operations
Assessment criteria
The learner can: 4.1 Complete any required documentation accurately and clearly 4.2 Obtain the process data and log accurately

Learning outcome
The learner will: 5. Be able to communicate with others
Assessment criteria
The learner can: 5.1 Communicate with other relevant personnel when required, including: • spoken • written • electronic

Learning outcome
The learner will: 6. Be able to deal with problems
Assessment criteria
The learner can: 6.1 Deal promptly with any problems that arise from: • standard operation procedures • health, safety and environmental protection procedures 6.2 Report any problems that they cannot solve and/or are not their responsibility

Learning outcome
The learner will: 7. Be able to follow operational and organisational procedures
Assessment criteria
The learner can: 7.1 Work safely at all times 7.2 Observe security and confidentiality when required

Unit 313 Carry out advanced control room operations within downstream control room operations environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Carry Out Advanced Control Room Operations Within Downstream Control Room Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Materials may include solids, liquids and gases

Operating conditions may include:

- temperature
- flow
- humidity
- pressure
- density
- pH
- level.

PTW may include permit to work, authority to start, and/or continue with the operation or the equivalent.

Corrective actions may include:

- adjust
- request assistance
- replace defective materials
- shutdown.

Equipment/plant may include equipment/plant where there is interaction between items and/or people. Includes parameters within the operator's control, and control instrumentation. Typical equipment may include:

- chemical reactors
- addition tanks
- phase separators
- receiving vessels
- pipework and pumps
- film coaters
- solution make-up vessels
- filters and spray equipment.

Process type/operations may include:

- batch operations, where there may be a number of batch operations running simultaneously, or may be multi-staged batch operation
- continuous operations, such as reaction, recovery, separation and purification processes, mixing, granulating, drying and compressing, distillation.

Relevant personnel may include process, utilities, materials handling, laboratory and any other relevant personnel.

Documentation may include that relating to controlling processing, and any other relevant documentation.

Problems to include those that are predictable, within plant's history, within other operational areas, indoors and outdoors.

Communication to include:

- spoken
- written
- electronic.

Unit 314 How to carry out advanced control room operations within downstream control room operations environments

UAN:	L/600/3268
Level:	Level 3
Credit value:	4
GLH:	36
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know how to carry out checks and why this is important
Assessment criteria
The learner can: 1.1 Explain how to check that the equipment and materials are ready for processing 1.2 Explain why it is important to check that all controls are set correctly

Learning outcome
The learner will: 2. Know how to maintain process conditions
Assessment criteria
The learner can: 2.1 Describe how to set the controls correctly as specified in the operating instructions 2.2 Describe how to monitor the process and explain the importance of the activity 2.3 Explain what corrective action could be taken when appropriate 2.4 State the meaning of terms used in operating instructions

Learning outcome
The learner will: 3. Know how to work within the operating parameters
Assessment criteria
The learner can: 3.1 Explain the importance of operating parameters in the process 3.2 Describe how to set operating parameters in the control room operation 3.3 Explain how to follow the correct operating procedure and sequence of actions when in control

Learning outcome
The learner will: 4. Know how to identify and use data when carrying out advanced control room operations
Assessment criteria
The learner can: 4.1 Identify the methods of obtaining process data 4.2 Explain how to interpret the data 4.3 Explain how to log process data accurately

Learning outcome
The learner will: 5. Know how to record and document information
Assessment criteria
The learner can: 5.1 Explain how to record and document information accurately 5.2 Explain the consequences of not recording accurately

Learning outcome
The learner will: 6. Know how to communicate with others
Assessment criteria
The learner can: 6.1 Explain the importance of communicating systems information to others 6.2 Identify appropriate methods of communication

Learning outcome
The learner will: 7. Know how to deal with problems
Assessment criteria
The learner can: 7.1 Explain the importance of accepting responsibility 7.2 Explain the types of problems that may occur and how to recognise and deal with them 7.3 Identify who to report to with unsolvable problems and/or those which are not their responsibility

Learning outcome
The learner will: 8. Know how to follow operational and organisational procedures
Assessment criteria
The learner can: 8.1 Explain their personal responsibilities with regard to health, safety and environment 8.2 Explain when and why it may be important to observe security and confidentiality 8.3 Explain the consequences of not following correct procedures

Unit 314 How to carry out advanced control room operations within downstream control room operations environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Materials may include solids, liquids and gases.

Operating conditions may include:

- temperature
- flow
- humidity
- pressure
- density
- pH
- level.

PTW may include permit to work, authority to start, and/or continue with the operation or the equivalent.

Corrective actions may include:

- adjust
- request assistance
- replace defective materials
- shutdown.

Equipment/plant may include equipment/plant where there is interaction between items and/or people. Includes parameters within the operator's control, and control instrumentation. Typical equipment may include:

- chemical reactors
- addition tanks
- phase separators
- receiving vessels
- pipework and pumps
- film coaters
- solution make-up vessels
- filters and spray equipment.

Process type/operations may include:

- Batch operations, where there may be a number of batch operations running simultaneously, or may be multi-staged batch operation
- Continuous operations, such as reaction, recovery, separation and purification processes, mixing, granulating, drying and compressing, distillation.

Relevant personnel may include process, utilities, materials handling, laboratory and any other relevant personnel.

Documentation may include that relating to controlling processing, and any other relevant documentation.

Problems to include those that are predictable, within plant's history, within other operational areas, indoors and outdoors.

Communication to include:

- spoken
- written
- electronic.

Unit 315 Contribute to the Safety of the Processing Environment within Downstream Field Operations Environments

UAN:	A/600/3038
Level:	Level 3
Credit value:	3
GLH:	4
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to identify and deal with safety hazards
Assessment criteria
The learner can: 1.1 Identify the safety hazards 1.2 Take appropriate action on the identification of safety hazards

Learning outcome
The learner will: 2. Be able to use and care for safety equipment and related tools
Assessment criteria
The learner can: 2.1 Ensure that safety equipment and approved tools are fit for purpose 2.2 Use all relevant safety equipment and approved tools correctly 2.3 Return safety equipment and approved tools to designated areas after use and report any defects 2.4 Access and use additional resources as appropriate

Learning outcome
The learner will: 3. Be able to keep all working areas clear and tidy at all times
Assessment criteria
The learner can: 3.1 Ensure that access to and egress from working area is maintained at all times 3.2 Keep all escape routes and access to emergency and safety equipment clear 3.3 Keep the working area clean and tidy in accordance with requirements

Learning outcome
The learner will: 4. Be able to discharge substances safely and so that the environment is protected
Assessment criteria
The learner can: 4.1 Advise and consult with appropriate personnel prior to any discharge or emission 4.2 Ensure that: • the amount of gas and liquid discharged is within required limits • the amount of pollutant discharged into dedicated drainage systems is within required limits • the level of atmospheric emissions is within required limits 4.3 Ensure that noise levels are minimised by taking appropriate action

Learning outcome
The learner will: 5. Be able to follow organisational procedures
Assessment criteria
The learner can: 5.1 Work safely in accordance with operational requirements 5.2 Use specified PPE correctly in designated areas 5.3 Ensure that only authorised people are allowed access to the work area 5.4 Use safe manual handling methods

Unit 315 Contribute to the Safety of the Processing Environment within Downstream Field Operations Environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Contribute to the Safety of the Processing Environment within Downstream Field Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

PPE to include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Safety Equipment could include:

- approved site PPE
- safety showers
- eye baths
- gas detection equipment
- fire fighting equipment.

Unit 316 How to Handle Non-routine Information on Plant Condition Within Downstream Field Operations Environments

UAN:	A/600/3198
Level:	Level 3
Credit value:	5
GLH:	46
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know how to access and use information
Assessment criteria
The learner can: 1.1 Explain how to access a range of information from different sources 1.2 Explain how to identify, gather and understand information which is relevant to the problem 1.3 Explain how to access, interpret and contribute to equipment records

Learning outcome
The learner will: 2. Know how to check the condition of the plant
Assessment criteria
The learner can: 2.1 identify the operating principles of relevant equipment, to include: • rotating • non-rotating and storage • heat transfer • control 2.2 Describe how to perform the relevant checks, to include: • visual inspection • equipment integrity test • line-up 2.3 Explain the need for, and possible outcome of, surveys

Learning outcome
The learner will: 3. Know how to take non-routine field readings and diagnose faults affecting plant conditions
Assessment criteria
The learner can: 3.1 Explain the operating principles, conditions and parameters of the relevant plant 3.2 Identify the possible causes to be investigated and the order of priority 3.3 Identify the most likely cause of the problem and the appropriate actions to implement 3.4 Explain how to implement a systematic and effective analysis 3.5 Identify what actions to take on identification of abnormal results 3.6 Explain the consequences should the fault not be rectified

Learning outcome
The learner will: 4. Know how to communicate effectively and the consequences of poor communication
Assessment criteria
The learner can: 4.1 Explain the importance of communication 4.2 Describe the consequences of poor and inaccurate communication 4.3 Identify when and how communication links should be used between field operators and others 4.4 Explain the consequences of not producing written and verbal reports within the required timescale 4.5 Explain how to use log books and data sheets effectively

Learning outcome
The learner will: 5. Know how to follow organisational procedures
Assessment criteria
The learner can: 5.1 Explain the implications of statutory (e.g. HASAWA and COSHH) and organisational requirements and explain how to comply with them 5.2 Explain how to select, use and care for PPE

Unit 316 How to Handle Non-routine Information on Plant Condition Within Downstream Field Operations Environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Information could be accessed from:

- process and instrumentation diagrams
- plant and equipment operating procedures
- plant operating manuals.

Sources of information could include:

- appropriate people
- readings
- surveys
- records
- reports
- field observation.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Statutory and Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 317 Monitor and Maintain Process and Equipment Conditions Within Downstream Field Operations Environments

UAN:	D/600/3193
Level:	Level 3
Credit value:	3
GLH:	4
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to carry out the handover of responsibilities
Assessment criteria
The learner can: 1.1 Carry out the handover with appropriate people at the designated time and location 1.2 Ensure that the information exchanged provides a full, clear and accurate description of the current status of the work area 1.3 Clarify and confirm any information that is unclear or conflicting **before** acceptance

Learning outcome
The learner will: 2. Be able to maintain the levels of consumables
Assessment criteria
The learner can: 2.1 Maintain the level and concentration of consumables 2.2 Perform stock checks of consumables in accordance with requirements 2.3 Use and store consumables correctly

Learning outcome
The learner will: 3. Be able to maintain process conditions within work area
Assessment criteria
The learner can: 3.1 Complete all routine checks at the earliest opportunity 3.2 Maintain the specified conditions within given tolerances for each piece of equipment 3.3 Carry out all relevant adjustments and inform the relevant people as appropriate 3.4 Ensure, through timely and appropriate adjustments, that the process is operating within the given tolerances 3.5 Leave equipment safe and clean on conclusion of operation 3.6 Identify the implications of changing plant conditions on further work

Learning outcome
The learner will: 4. Be able to follow organisational and operational procedures
Assessment criteria
The learner can: 4.1 Work safely in accordance with operational requirements 4.2 Use the appropriate operating procedures for designated checks and adjustments correctly 4.3 Complete all relevant documentation 4.4 Acknowledge and respond to alarms properly

Unit 317 Monitor and Maintain Process and Equipment Conditions Within Downstream Field Operations Environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Monitor and Maintain Process and Equipment Conditions Within Downstream Field Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Responsibilities for work area to include:

- plant steady
- plant unsteady
- start-up
- shut-down
- on-grade product
- off-grade product.

Information to record and pass on may include:

- log books
- readings sheets
- measurements outside acceptable tolerances
- adjustments made.

Consumables should be handled so that the following are avoided:

- injuries
- contamination
- hazards.

Documentation could include:

- handover logs
- permits
- other specified recording documentation.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Statutory and Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 318 Prepare for Maintenance Within Downstream Field Operations Environments

UAN:	D/600/3260
Level:	Level 3
Credit value:	3
GLH:	4
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to prepare equipment
Assessment criteria
The learner can: 1.1 Isolate the correct items from both process and energy sources 1.2 Shield any equipment that could be adversely affected by maintenance activities 1.3 Cordon off work areas as appropriate

Learning outcome
The learner will: 2. Be able to prepare the work area and deal with problems that arise
Assessment criteria
The learner can: 2.1 Prepare the work area as specified in the Permit to Work procedures 2.2 Cancel the permits correctly and promptly when conditions are adversely changed 2.3 Identify any outstanding problems and report these to the appropriate personnel

Learning outcome
The learner will: 3. Be able to accept back equipment
Assessment criteria
The learner can: 3.1 Check the integrity of equipment before accepting back 3.2 Confirm that work area preparations are complete 3.3 Confirm that the work on plant and equipment is complete

Learning outcome
The learner will: 4. Be able to communicate information with the appropriate people
Assessment criteria
The learner can: 4.1 Communicate effectively with appropriate personnel 4.2 Supply the maintenance personnel with all relevant information

Learning outcome
The learner will: 5. Be able to follow organisational and operational procedures
Assessment criteria
The learner can: 5.1 Dispose of equipment contents in accordance with procedures 5.2 Complete all relevant documentation 5.3 Work safely in accordance with operational requirements 5.4 Ensure that the Permit to Work conditions are fully met 5.5 Wear the correct PPE

Unit 318 Prepare for Maintenance Within Downstream Field Operations Environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Prepare for Maintenance Within Downstream Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Equipment should include:

- rotating
- non-rotating
- heat transfer
- control.

Checks and tests could include:

- visual inspection
- line up
- equipment integrity tests.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Statutory and Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Site Procedures could include:

- use of log books
- check sheets.

Unit 319 How to Monitor and Maintain Process and Equipment Conditions Within Downstream Field Operations Environments

UAN:	H/600/3194
Level:	Level 3
Credit value:	4
GLH:	38
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know the role and purpose of consumables when monitoring and maintaining equipment
Assessment criteria
The learner can: 1.1 Explain the purpose of consumables 1.2 Describe the specified consumables for each piece of equipment 1.3 Explain how to identify the need to replenish consumables to maintain level and concentration 1.4 Describe how to use, handle and store consumables correctly

Learning outcome
The learner will: 2. Know how to access, use and interpret documentation and logs
Assessment criteria
The learner can: 2.1 Explain how to access and use relevant documentation 2.2 Explain the relevance of each log item to the operation of the plant 2.3 Identify how the handover log relates to the plant equipment and process

Learning outcome
The learner will: 3. Know how to record and pass on information
Assessment criteria
The learner can: 3.1 Identify the relevant information to record and its potential impact (e.g. abnormal consumption) 3.2 Identify the relevant information to record and pass on to others as appropriate

Learning outcome
The learner will: 4. Know how to monitor and maintain process and equipment
Assessment criteria
The learner can: 4.1 Explain the principles and practice of process control 4.2 Explain the principles and practice of equipment inspection in working areas 4.3 Identify the parameters to be measured and where those measurements should be taken 4.4 Explain the reasons for taking particular readings and measurements and their significance 4.5 Describe the appropriate timescale for making adjustments 4.6 Describe the action required on off-specification material 4.7 Identify the limits of adjustments to process and utilities

Learning outcome
The learner will: 5. Know how to work safely when monitoring and maintaining equipment
Assessment criteria
The learner can: 5.1 Describe how to keep the equipment and process within given tolerances 5.2 Explain the effects of exceeding tolerance levels 5.3 Explain the potential impact of process deviations on other areas, for example, the interconnected items of equipment that support the process 5.4 Explain the potential hazards during normal operation and the actions to be taken

Learning outcome
The learner will: 6. Know how to work within organisational and operational procedures
Assessment criteria
The learner can: 6.1 Describe their responsibilities in relation to their work area 6.2 Explain how to select, use and care for PPE 6.3 Explain the implications of statutory (e.g. HASAWA and COSHH) and organisational requirements and explain how to comply with them

Unit 319 How to Monitor and Maintain Process and Equipment Conditions Within Downstream Field Operations Environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Responsibilities for work area to include:

- plant steady
- plant unsteady
- start-up
- shut-down
- on-grade product
- off-grade product.

Information to record and pass on may include:

- log books
- readings sheets
- measurements outside acceptable tolerances
- adjustments made.

Consumables should be handled so that the following are avoided:

- injuries
- contamination
- hazards
- Documentation could include:
- handover logs
- permits
- other specified recording documentation.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Statutory and Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 320 Shut Down Equipment Within Downstream Field Operations Environments

UAN:	H/600/3258
Level:	Level 3
Credit value:	2
GLH:	4
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to prepare to shut down equipment
Assessment criteria
The learner can: 1.1 Obtain appropriate confirmation for shutdown to proceed 1.2 Identify equipment and check status correctly 1.3 Inform all relevant people of possible impact on them due to shutdown 1.4 Inform appropriate personnel that shutdown is imminent

Learning outcome
The learner will: 2. Be able to shut down equipment and deal with abnormal conditions
Assessment criteria
The learner can: 2.1 Shut down equipment in accordance with specified procedures 2.2 Inform appropriate personnel when shutdown is completed to specified state 2.3 Identify, correct and promptly report any abnormality

Learning outcome
The learner will: 3. Be able to follow organisational and operational procedures
Assessment criteria
The learner can: 3.1 Follow procedures for checks and tests 3.2 Work safely in accordance with operational requirements 3.3 Complete all relevant documentation

Unit 320 Shut Down Equipment Within Downstream Field Operations Environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Shut Down Equipment Within Downstream Field Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Documentation could include:

- permits
- operating procedures.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 321 How to Prepare for Maintenance Within Downstream Field Operations Environments

UAN:	H/600/3261
Level:	Level 3
Credit value:	5
GLH:	50
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know how to prepare for maintenance activities
Assessment criteria
The learner can: 1.1 Explain how to interpret operational requirements 1.2 Identify the equipment relevant to their work area 1.3 Explain why controlled entry to work area is required 1.4 Describe how and when to cordon off a work area 1.5 Describe the isolation techniques for all relevant items of equipment

Learning outcome
The learner will: 2. Know how to carry out checks
Assessment criteria
The learner can: 2.1 Explain how to carry out checks and tests 2.2 Explain the implications of commencing work in an area that is not prepared

Learning outcome
The learner will: 3. Know how to accept back equipment and the work area
Assessment criteria
The learner can: 3.1 Explain the implications of accepting back incomplete equipment 3.2 Explain how the operation of incomplete equipment affects the work activity 3.3 Explain why work area must be handed back in accordance with the permit conditions

Learning outcome
The learner will: 4. Know how to identify hazards
Assessment criteria
The learner can: 4.1 Explain how to identify hazards within the work area 4.2 Describe how hazardous conditions can arise in a previously prepared area

Learning outcome
The learner will: 5. Know why it is important to work safely
Assessment criteria
The learner can: 5.1 Explain why it is necessary to follow site procedures 5.2 Explain the importance of using: • the correct work methods • hand tools • the correct materials 5.3 Explain why relevant personnel have to be informed of equipment status 5.4 Explain why work has to be carried out under permit control

Learning outcome
The learner will: 6. Know how operating conditions affect maintenance preparation
Assessment criteria
The learner can: 6.1 Explain the operating conditions and principles of relevant equipment which may impact on the work area 6.2 Explain the operating conditions and parameters of the work area 6.3 Explain the effect of operating conditions on equipment preparation 6.4 Explain the operating principles of relevant equipment

Learning outcome
The learner will: 7. Know how to deal with abnormalities
Assessment criteria
The learner can: 7.1 Identify how to deal with abnormal occurrences during: • isolation • draining • purging • flushing • venting

Learning outcome
The learner will: 8. Know how to communicate appropriate information effectively
Assessment criteria
The learner can: 8.1 Identify the information required by maintenance personnel for the equipment to be worked on 8.2 Explain how to pass on: • details of the equipment to be prepared • advice about significant delays 8.3 Explain why people need to be informed of work about to commence

Learning outcome
The learner will: 9. Know how to follow organisational and regulatory procedures
Assessment criteria
The learner can: 9.1 Explain how to select, use and care for PPE 9.2 Describe the implications of statutory (e.g. HASAWA and COSHH) and organisational requirements, and explain how to comply with them 9.3 Explain why permits associated with the activity have to be completed 9.4 Identify the limits of their own responsibility and authority

Unit 321 How to Prepare for Maintenance Within Downstream Field Operations Environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Equipment should include:

- rotating
- non-rotating
- heat transfer
- control.

Checks and tests could include:

- visual inspection
- line up
- equipment integrity tests.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Statutory and Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Site Procedures could include:

- use of log books
- check sheets.

Unit 322 How to Shut Down Equipment Within Downstream Field Operations Environments

UAN:	K/600/3259
Level:	Level 3
Credit value:	5
GLH:	42
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know how to prepare to shutdown equipment
Assessment criteria
The learner can: 1.1 Identify the potential problems and appropriate action to be taken in preparing for shutdown 1.2 Explain the situations when shutdown should not proceed

Learning outcome
The learner will: 2. Know how to access and interpret relevant documentation
Assessment criteria
The learner can: 2.1 Explain how to access relevant documentation 2.2 Identify the plant operating manuals that are relevant 2.3 Explain the plant layout and plant operating manuals

Learning outcome
The learner will: 3. Know how the process being undertaken affects the shutdown of equipment
Assessment criteria
The learner can: 3.1 Explain the function and operating principles of the equipment to be started in the operation of the plant and process, to include: • rotating • non-rotating and storage • heat transfer • control 3.2 Explain the properties of the material contained in the equipment

Learning outcome
The learner will: 4. Know how to shut down equipment safely and in a timely manner
Assessment criteria
The learner can: 4.1 Identify the operating conditions and parameters 4.2 Describe the equipment shutdown procedures 4.3 Explain the importance of time taken to shut down and isolate item of equipment to specified state 4.4 Explain how to shut down equipment in the correct sequence and the problems that arise if this is not achieved 4.5 Explain the trip systems and logic sequence 4.6 Identify the potential problems and appropriate action to be taken if item of equipment is not shut down correctly 4.7 Explain the consequences if item of equipment is not isolated correctly

Learning outcome
The learner will: 5. Know the effects of shutting down equipment
Assessment criteria
The learner can: 5.1 Explain the effect on the remainder of the plant where the item of equipment is taken out of service 5.2 Explain the effect on plant in adjacent areas

Learning outcome
The learner will: 6. Know how to follow organisational and regulatory procedures
Assessment criteria
The learner can: 6.1 Explain how to select, use and care for PPE 6.2 Describe the implications of statutory (e.g. HASAWA and COSHH) and organisational requirements, and explain how to comply with them

Unit 322 How to Shut Down Equipment Within Downstream Field Operations Environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Documentation could include:

- permits
- operating procedures.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 323 Handle Non-routine Information on Plant Condition Within Downstream Field Operations Environments

UAN:	M/600/3196
Level:	Level 3
Credit value:	3
GLH:	4
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to record and document relevant information
Assessment criteria
The learner can: 1.1 Record the actions required to solve the problem 1.2 Prepare accurate and clear records and documentation after taking readings within an appropriate timescale

Learning outcome
The learner will: 2. Be able to process information relating to plant conditions
Assessment criteria
The learner can: 2.1 Gather all relevant information from the appropriate sources 2.2 Provide prompt, accurate and clear information on plant status to the appropriate people 2.3 Interpret the available information and provide relevant solutions to the problem

Learning outcome
The learner will: 3. Be able to perform checks and analyse problems
Assessment criteria
The learner can: 3.1 Perform all relevant checks 3.2 Take the appropriate field readings correctly 3.3 Analyse the problem in a systematic and effective manner 3.4 Establish the actions required to solve the problem 3.5 Fit any additional monitoring equipment correctly

Learning outcome
The learner will: 4. Be able to communicate information effectively to the relevant people in a timely manner
Assessment criteria
The learner can: 4.1 Inform all relevant people: • that the field readings are being taken and of any possible impact on them • of the problem, its solution and any possible impact on them 4.2 Provide prompt, accurate and clear information on plant status to the appropriate people 4.3 Pass records to the appropriate people where no further personal action is required

Learning outcome
The learner will: 5. Be able to follow organisational and operational procedures
Assessment criteria
The learner can: 5.1 Work safely in accordance with operational requirements 5.2 Wear the appropriate PPE

Unit 323 Handle Non-routine Information on Plant Condition Within Downstream Field Operations Environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Handle Non-routine Information on Plant Condition Within Downstream Field Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Information could be accessed from:

- process and instrumentation diagrams
- plant and equipment operating procedures
- plant operating manuals.

Sources of information could include:

- appropriate people
- readings
- surveys
- records
- reports
- field observation.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Statutory and Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 324 How to Start Up Equipment Within Downstream Field Operations Environments

UAN:	R/600/3191
Level:	Level 3
Credit value:	5
GLH:	48
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know how to prepare to start up equipment
Assessment criteria
The learner can: 1.1 Explain the start-up and operating procedures for the equipment, including how to override the start-up process 1.2 Describe the function of the equipment to be started in the operation of the plant and process 1.3 Explain the reasons for the defined sequence in the start-up and the consequences of not following it 1.4 Describe why it is important to be familiar with the plant layout and operation manuals

Learning outcome
The learner will: 2. Know the range of factors to take into account when starting up equipment
Assessment criteria
The learner can: 2.1 Explain the line up and control systems as on process and instrumentation diagrams 2.2 Identify the properties of the material contained in the equipment 2.3 Explain the trip systems and logic sequences 2.4 Identify the possible process excursions and acceptable tolerances 2.5 Explain the parameters to be measured, checked and the acceptable tolerances (e.g. equipment integrity tests; line-up)

Learning outcome
The learner will: 3. Know the importance of the operating conditions when starting up equipment
Assessment criteria
The learner can: 3.1 Identify the normal range of operating conditions and acceptable conditions 3.2 Explain the reasons for achieving conditions for each stage within a given timescale 3.3 Explain the consequences of correct conditions not being achieved 3.4 Explain the reasons for operating equipment to specified conditions

Learning outcome
The learner will: 4. Know how to communicate effectively in a range of conditions
Assessment criteria
The learner can: 4.1 Explain the appropriate selection and effective use of communication links between operators and relevant others 4.2 Identify the nature and extent of information to be communicated (e.g. status of start-up equipment; status of interconnected plant and equipment) 4.3 Explain the importance of clarity and accuracy when communicating information

Learning outcome
The learner will: 5. Know how to document and record information
Assessment criteria
The learner can: 5.1 Describe how to access relevant documentation (e.g. permits; standard operating procedures) 5.2 Identify the location of equipment records and methods of recording 5.3 Explain the reasons for recording the equipment conditions

Learning outcome
The learner will: 6. Know how to deal with abnormal conditions and hazards
Assessment criteria
The learner can: 6.1 Describe how to identify abnormal conditions (to include those associated with mechanical, electrical and instrument integrity) 6.2 Explain the potential hazards and the actions to be taken • during start-up • during checks and tests 6.3 Describe the actions to be taken when a hazard has been identified and consequences of delayed response to hazards 6.4 Identify the availability of standby equipment

Learning outcome
The learner will: 7. Know how to follow organisational and operational procedures
Assessment criteria
The learner can: 7.1 Explain how to select, use and care for PPE 7.2 Describe the implications of statutory (e.g. HASAWA and COSHH) and organisational and operational requirements 7.3 Describe the emergency procedures 7.4 Describe the alarm systems and the appropriate responses to alarm conditions 7.5 Explain how to identify the need for appropriate assistance and where to find it

Unit 324 How to Start Up Equipment Within Downstream Field Operations Environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Checks and tests could include:

- visual inspection
- equipment integrity tests
- line-up.

Communication could include:

- face to face
- telephone
- radio
- written.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Operational requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Plant and equipment to include:

- rotating
- non-rotating and storage
- heat transfer
- control
- start-up procedures.

Unit 325 How to Contribute to the Safety of the Processing Environment within Downstream Field Operations Environments

UAN:	T/600/3040
Level:	Level 3
Credit value:	5
GLH:	44
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know how to identify hazards
Assessment criteria
The learner can: 1.1 Identify the potential hazards associated with the particular working area and with work procedures 1.2 Identify the types of activity occurring, and possible hazards, in areas adjacent to plant

Learning outcome
The learner will: 2. Know how to take action when a hazard has been identified
Assessment criteria
The learner can: 2.1 Explain: • how to rectify the hazard • the reporting lines when a hazard has been identified • when the work should be discontinued • how to make those affected aware of the problem, including contractors, company personnel and visitors • the appropriate responses to fire and gas alarms on adjacent plant 2.2 Explain the procedures for obtaining medical assistance 2.3 Identify the safety roles of immediate supervisors, colleagues and safety representatives

Learning outcome
The learner will: 3. Know how to use and care for safety equipment and related tools
Assessment criteria
The learner can: 3.1 Describe how to identify and report defects in safety equipment and approved tools 3.2 Explain how to ensure that safety equipment and approved tools are fit for purpose and why they should be used 3.3 Identify when additional resources are needed and how to access and use them

Learning outcome
The learner will: 4. Know how the immediate work environment can impact on safety
Assessment criteria
The learner can: 4.1 Identify how and why it is necessary to keep the working area clean and tidy to a satisfactory standard 4.2 Explain the plant layout in the working area and the position of other relevant areas outside the plant 4.3 Identify the location and position of emergency exits, muster points and emergency equipment 4.4 Explain the procedures for allowing people in the work area

Learning outcome
The learner will: 5. Know how to discharge substances safely
Assessment criteria
The learner can: 5.1 Identify the appropriate personnel to consult and advise regarding discharges and emissions 5.2 Identify the appropriate method of disposal for relevant waste classifications 5.3 Identify the required limits for discharges and emissions into the environment 5.4 Explain the need for discharge and emission limits and the implications of exceeding them 5.5 Describe the classification of waste products

Learning outcome
The learner will: 6. Know how to protect the environment
Assessment criteria
The learner can: 6.1 Explain how the overall environmental system operates, including their responsibilities 6.2 Identify the operating procedures which have the most potential for environmental impact 6.3 Explain how noise levels can be minimised

Learning outcome
The learner will: 7. Know how to follow organisational, operational and regulatory procedures
Assessment criteria
The learner can: 7.1 Describe how to use approved manual handling methods 7.2 Explain how to select, use and care for PPE 7.3 Describe the implications of statutory (e.g. HASAWA and COSHH) and organisational requirements 7.4 Explain how to interpret the operational requirements

Unit 325 How to Contribute to the Safety of the Processing Environment within Downstream Field Operations Environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

PPE to include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Safety Equipment could include:

- approved site PPE
- safety showers
- eye baths
- gas detection equipment
- fire fighting equipment.

Unit 326 Start Up Equipment Within Downstream Field Operations Environments

UAN:	Y/600/3189
Level:	Level 3
Credit value:	4
GLH:	5
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to prepare to start up equipment
Assessment criteria
The learner can: 1.1 Obtain relevant authorisation for start-up to proceed 1.2 Correctly identify equipment and check status 1.3 Identify the locations of emergency isolation valves and their reset mechanisms 1.4 Inform appropriate personnel that start-up is imminent 1.5 Line up the equipment correctly

Learning outcome
The learner will: 2. Be able to deal with discrepancies in the paperwork
Assessment criteria
The learner can: 2.1 Identify any discrepancies between the plant drawings and the procedures 2.2 Report any discrepancies to the appropriate personnel

Learning outcome
The learner will: 3. Be able to start up equipment
Assessment criteria
The learner can: 3.1 Start up equipment in accordance with specified procedures 3.2 Achieve normal operating conditions within required timescale 3.3 Achieve operational conditions at each stage before proceeding to the next

Learning outcome
The learner will: 4. Be able to communicate information during start up
Assessment criteria
The learner can: 4.1 Achieve operational conditions at each stage before proceeding to the next 4.2 Complete all relevant documentation

Learning outcome
The learner will: 5. Be able to correct abnormal start up conditions
Assessment criteria
The learner can: 5.1 Identify abnormal conditions 5.2 Identify the impact of the abnormality on other areas and inform relevant personnel 5.3 Take prompt and appropriate action to correct the abnormality

Learning outcome
The learner will: 6. Be able to follow organisational and operational procedures
Assessment criteria
The learner can: 6.1 Follow operational procedures for checks and tests 6.2 Work safely in accordance with operational requirements 6.3 Wear the appropriate PPE

Unit 326 Start Up Equipment Within Downstream Field Operations Environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Start Up Equipment Within Downstream Field Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Checks and tests could include:

- visual inspection
- equipment integrity tests
- line-up.

Communication could include:

- face to face
- telephone
- radio
- written.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Operational requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Plant and equipment to include:

- rotating
- non-rotating and storage
- heat transfer
- control
- start-up procedures.

Unit 327 Carry Out Local Control Operations Within Downstream Field Operations Environments

UAN:	H/600/3325
Level:	Level 3
Credit value:	3
GLH:	6
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to start up local control operations, including at handover
Assessment criteria
The learner can: 1.1 Check that the operating instructions are as required and that they are clear and complete 1.2 Ensure that the operating parameters are set according to the operating instructions 1.3 Follow any 'handover' procedure before accepting responsibility

Learning outcome
The learner will: 2. Be able to control operations
Assessment criteria
The learner can: 2.1 Follow the correct operating procedure when carrying out control operations 2.2 Follow the correct sequence of actions when carrying out control operations 2.3 Ensure that controls are set correctly as contained in the operating instructions

Learning outcome
The learner will: 3. Be able to maintain process conditions
Assessment criteria
The learner can: 3.1 Monitor and check the process operation at the required intervals 3.2 Maintain the quality, quantity and time schedule of the process 3.3 Ensure that the process operation runs within acceptable limits as specified in the operating instructions 3.4 Check that all of the control equipment/system is in a safe and functional state 3.5 Interpret the results and take corrective action where necessary

Learning outcome
The learner will: 4. Be able to use and complete documentation relevant to local control operations
Assessment criteria
The learner can: 4.1 Complete any required documentation accurately and clearly 4.2 Obtain the process data and log accurately

Learning outcome
The learner will: 5. Be able to communicate with others
Assessment criteria
The learner can: 5.1 Communicate with other relevant personnel when required, including: • spoken • written • electronic

Learning outcome
The learner will: 6. Be able to deal with problems
Assessment criteria
The learner can: 6.1 Deal promptly with any problems that arise from: • standard operation procedures • health, safety and environmental protection procedures 6.2 Report any problems that they cannot solve and/or are not their responsibility

Learning outcome
The learner will: 7. Be able to follow operational and organisational procedures
Assessment criteria
The learner can: 7.1 Wear appropriate PPE when necessary 7.2 Work safely at all times 7.3 Observe security and confidentiality when required

Unit 327 Carry Out Local Control Operations Within Downstream Field Operations Environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Carry Out Local Control Operations Within Downstream Field Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Materials will include liquids and gases

Operating conditions may include:

- temperature
- flow
- humidity
- pressure
- density
- pH
- level.

PTW may include permit to work, authority to start, and/or continue with the operation or the equivalent.

Corrective actions may include:

- start up
- adjust
- request assistance
- shutdown.

Equipment/plant may include equipment/plant where there is interaction between items and/or people. Includes parameters within the operator's control, and control instrumentation. Typical equipment may include:

- reactors
- tanks
- separators
- vessels
- pipework and pumps
- film coaters
- solution make-up vessels.

Process type/operations may include:

- Batch operations, where there may be a number of batch operations running simultaneously, or may be multi-staged batch operation
- Continuous operations, such as reaction, recovery, separation and purification processes, mixing, compressing, distillation.

Relevant personnel may include process, utilities, materials handling, and any other relevant personnel.

Documentation may include that relating to controlling processing, and any other relevant documentation.

Problems to include those that are predictable, within plant's history, within other operational areas, indoors and outdoors.

Communication to include:

- spoken
- written
- electronic.

Unit 328 How to Carry Out Local Control Operations Within Downstream Field Operations Environments

UAN:	K/600/3326
Level:	Level 3
Credit value:	4
GLH:	36
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know how to carry out checks and why this is important
Assessment criteria
The learner can: 1.1 Explain how to check that the equipment and materials are ready for processing 1.2 Explain why it is important to check that all controls are set correctly

Learning outcome
The learner will: 2. Know how to maintain process conditions
Assessment criteria
The learner can: 2.1 Describe how to set the controls correctly as specified in the operating instructions 2.2 Describe how to monitor the process and explain the importance of the activity 2.3 Explain what corrective action could be taken when appropriate 2.4 State the meaning of terms used in operating instructions

Learning outcome
The learner will: 3. Know how to work within the operating parameters
Assessment criteria
The learner can: 3.1 Explain the importance of operating parameters in the process 3.2 Describe how to set operating parameters in the local control operation 3.3 Explain how to follow the correct operating procedure and sequence of actions when in control

Learning outcome
The learner will: 4. Know how to identify and use data when carrying out local control operations
Assessment criteria
The learner can: 4.1 Identify the methods of obtaining process data 4.2 Explain how to interpret the data 4.3 Explain how to log process data accurately

Learning outcome
The learner will: 5. Know how to record and document information
Assessment criteria
The learner can: 5.1 Explain how to record and document information accurately 5.2 Explain the consequences of not recording accurately

Learning outcome
The learner will: 6. Know how to communicate with others
Assessment criteria
The learner can: 6.1 Explain the importance of communicating systems information to others 6.2 Identify appropriate methods of communication

Learning outcome
The learner will: 7. Know how to deal with problems
Assessment criteria
The learner can: 7.1 Explain the importance of accepting responsibility 7.2 Explain the types of problems that may occur and how to recognise and deal with them 7.3 Identify who to report to with unsolvable problems and/or those which are not their responsibility

Learning outcome
The learner will: 8. Know how to follow operational and organisational procedures
Assessment criteria
The learner can: 8.1 Identify when and why PPE needs to be worn 8.2 Explain their personal responsibilities with regard to health, safety and environment 8.3 Explain when and why it may be important to observe security and confidentiality 8.4 Explain the consequences of not following correct procedures

Unit 328 How to Carry Out Local Control Operations Within Downstream Field Operations Environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Materials will include liquids and gases

Operating conditions may include:

- temperature
- flow
- humidity
- pressure
- density
- pH
- level.

PTW may include permit to work, authority to start, and/or continue with the operation or the equivalent.

Corrective actions may include:

- start up
- adjust
- request assistance
- shutdown.

Equipment/plant may include equipment/plant where there is interaction between items and/or people. Includes parameters within the operator's control, and control instrumentation. Typical equipment may include:

- reactors
- tanks
- separators
- vessels
- pipework and pumps
- solution make-up vessels.

Process type/operations may include:

- batch operations, where there may be a number of batch operations running simultaneously, or may be multi-staged batch operation
- continuous operations, such as reaction, recovery, separation and purification processes, drying compressing and distillation.

Relevant personnel may include process, utilities, materials handling, and any other relevant personnel.

Documentation may include that relating to controlling processing, and any other relevant documentation.

Problems to include those that are predictable, within plant's history, within other operational areas, indoors and outdoors.

Communication to include:

- spoken
- written
- electronic .

Unit 329 Analyse Samples Within Downstream Field Operations Environments

UAN:	A/600/3332
Level:	Level 3
Credit value:	2
GLH:	4
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to prepare to analyse samples
Assessment criteria
The learner can: 1.1 Obtain containers appropriate for the sample material and ensure that they are clean before use 1.2 Ensure that suitable (fit for purpose) analysis equipment is set up and cleaned correctly 1.3 Prepare to analyse samples in the appropriate designated area 1.4 Ensure that the sample preparations match schedule, instructions and procedures

Learning outcome
The learner will: 2. Be able to analyse samples
Assessment criteria
The learner can: 2.1 Perform analyses in the appropriate designated area 2.2 Analyse the samples in accordance with standard test method(s)

Learning outcome
The learner will: 3. Be able to store the sample safely after analysis
Assessment criteria
The learner can: 3.1 Retain the sample in accordance with procedures 3.2 Ensure that retained samples are secure and labelled

Learning outcome
The learner will: 4. Be able to communicate results of analyses and deal with abnormal readings
Assessment criteria
The learner can: 4.1 Inform the appropriate personnel that the samples have been analysed 4.2 Identify abnormal readings and report them in accordance with procedures

Learning outcome
The learner will: 5. Be able to reinstate the work area after use
Assessment criteria
The learner can: 5.1 Leave equipment in a clean and safe condition ready for re-use 5.2 Leave the work area in a safe and clean condition

Learning outcome
The learner will: 6. Be able to work in accordance with operational requirements
Assessment criteria
The learner can: 6.1 Wear the appropriate PPE 6.2 Complete all relevant documentation 6.3 Work safely in accordance with operational requirements

Unit 329 Analyse Samples Within Downstream Field Operations Environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Analyse Samples Within Downstream Field Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Analysis Equipment to include:

- type
- accuracy
- measurement range appropriateness to sample characteristics.

Communication should be:

- clear
- accurate
- prompt.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Statutory and Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 401 Provide instruction within downstream control room operations environments

UAN:	R/600/3272
Level:	Level 4
Credit value:	3
GLH:	5
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to prepare to give instruction
Assessment criteria
The learner can: 1.1 Ensure that copies of the appropriate procedure are available and ready for use 1.2 Put trainee at ease 1.3 Determine the existing level of trainee knowledge 1.4 Provide trainee with a clear explanation and outline of the training objectives

Learning outcome
The learner will: 2. Be able to instruct a trainee and monitor understanding
Assessment criteria
The learner can: 2.1 Provide trainee with a logical step-by-step explanation stressing the key points 2.2 Ensure that information and summaries are given at a suitable pace and frequency for the trainee 2.3 Check trainee's understanding of the activity

Learning outcome
The learner will: 3. Be able to provide feedback and monitor progress
Assessment criteria
The learner can: 3.1 Provide thorough and constructive feedback to the trainee 3.2 Monitor the trainee's progress in accordance with procedures 3.3 Ensure that the trainee progresses only when competent

Learning outcome
The learner will: 4. Be able to report progress and suggest further training, as appropriate
Assessment criteria
The learner can: 4.1 Provide a thorough, accurate and objective report to supervisor on trainee's progress 4.2 Recommend appropriate further training

Learning outcome
The learner will: 5. Be able to work in accordance with operational requirements
Assessment criteria
The learner can: 5.1 Complete all relevant documentation 5.2 Work safely in accordance with operational requirements

Unit 401 Provide instruction within downstream control room operations environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Provide Instruction Within Downstream Control Room Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Statutory and Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 402 How to provide instruction within downstream control room operations environments

UAN:	Y/600/3273
Level:	Level 4
Credit value:	5
GLH:	43
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know the training plan and subject content for the training to be delivered
Assessment criteria
The learner can: 1.1 Explain the operating principles and procedures of the process on which instruction will take place 1.2 Identify the relevant training plan for a downstream operations environment

Learning outcome
The learner will: 2. Know the principles of training delivery
Assessment criteria
The learner can: 2.1 Explain how to structure the learning into appropriately sized sections and why this is important 2.2 Describe the written and verbal communication methods of training 2.3 Explain why standards of performance are required

Learning outcome
The learner will: 3. Know how to interact with the trainee prior to the training taking place
Assessment criteria
The learner can: 3.1 Explain how to put the trainee at ease and why this is important 3.2 Explain the importance of explaining the training activity objectives to the trainee 3.3 Explain the importance and relevance of establishing existing levels of understanding of the trainee

Learning outcome
The learner will: 4. Know why progress is monitored
Assessment criteria
The learner can: 4.1 Explain the importance of checking progress regularly 4.2 Identify why checking is necessary to complete a training activity

Learning outcome
The learner will: 5. Know how to debrief trainee and monitor progress
Assessment criteria
The learner can: 5.1 Explain the importance of giving objective and constructive feedback to trainee on performance 5.2 Explain the importance of recording results 5.3 Explain the importance of monitoring progress

Learning outcome
The learner will: 6. Know how to work in accordance with operational requirements
Assessment criteria
The learner can: 6.1 Describe the implications of statutory (e.g. HASAWA, COMAH and COSHH) and organisational requirements and explain how to comply with them

Unit 402 How to provide instruction within downstream control room operations environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

Statutory and Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 403 Provide On-plant Instruction Within Downstream Field Operations Environments

UAN:	D/600/3338
Level:	Level 4
Credit value:	3
GLH:	5
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Be able to prepare to give instruction
Assessment criteria
The learner can: 1.1 Ensure that copies of the appropriate procedure are available and ready for use 1.2 Put trainee at ease 1.3 Determine the existing level of trainee knowledge 1.4 Provide trainee with a clear explanation and outline of the training objectives

Learning outcome
The learner will: 2. Be able to instruct a trainee and monitor understanding
Assessment criteria
The learner can: 2.1 Provide trainee with a logical step-by-step explanation stressing the key points 2.2 Ensure that information and summaries are given at a suitable pace and frequency for the trainee 2.3 Check trainee's understanding of the activity

Learning outcome
The learner will: 3. Be able to provide feedback and monitor progress
Assessment criteria
The learner can: 3.1 Provide thorough and constructive feedback to the trainee 3.2 Monitor the trainee's progress in accordance with procedures 3.3 Ensure that the trainee progresses only when competent

Learning outcome
The learner will: 4. Be able to report progress and suggest further training, as appropriate
Assessment criteria
The learner can: 4.1 Provide a thorough, accurate and objective report to supervisor on trainee's progress 4.2 Recommend appropriate further training

Learning outcome
The learner will: 5. Be able to work in accordance with operational requirements
Assessment criteria
The learner can: 5.1 Complete all relevant documentation 5.2 Work safely in accordance with operational requirements 5.3 Wear PPE, as necessary

Unit 403 Provide On-plant Instruction Within Downstream Field Operations Environments

Supporting information

Guidance

This unit should be assessed in a work environment and is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

This unit should not be taken prior to taking 'How to Provide On-plant Instruction Within Downstream Field Operations Environments'.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Statutory and Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Unit 404 How to Provide On-plant Instruction Within Downstream Field Operations Environments

UAN:	H/600/3339
Level:	Level 4
Credit value:	5
GLH:	43
Endorsement by a sector or regulatory body:	This unit is endorsed by Cogent, the Sector Skills Council for Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymers

Learning outcome
The learner will: 1. Know the training plan and subject content for the training to be delivered
Assessment criteria
The learner can: 1.1 Explain the operating principles and procedures of the process on which instruction will take place 1.2 Identify the relevant training plan for a downstream operations environment

Learning outcome
The learner will: 2. Know the principles of training delivery
Assessment criteria
The learner can: 2.1 Explain how to structure the learning into appropriately sized sections and why this is important 2.2 Describe the written and verbal communication methods of training 2.3 Explain why standards of performance are required

Learning outcome
The learner will: 3. Know how to interact with the trainee prior to the training taking place
Assessment criteria
The learner can: 3.1 Explain how to put the trainee at ease and why this is important 3.2 Explain the importance of explaining the training activity objectives to the trainee 3.3 Explain the importance and relevance of establishing existing levels of understanding of the trainee

Learning outcome
The learner will: 4. Know why progress is monitored
Assessment criteria
The learner can: 4.1 Explain the importance of checking progress regularly 4.2 Identify why checking is necessary to complete a training activity

Learning outcome
The learner will: 5. Know how to debrief trainee and monitor progress
Assessment criteria
The learner can: 5.1 Explain the importance of giving objective and constructive feedback to trainee on performance 5.2 Explain the importance of recording results 5.3 Explain the importance of monitoring progress

Learning outcome
The learner will: 6. Know how to work in accordance with operational requirements
Assessment criteria
The learner can: 6.1 Explain how to select, use and care for PPE 6.2 Describe the implications of statutory (e.g. HASAWA and COSHH) and organisational requirements and explain how to comply with them

Unit 404 How to Provide On-plant Instruction Within Downstream Field Operations Environments

Supporting information

Guidance

This unit is subject to the requirements set out in the Cogent Assessment Strategy.

The assumed pre-requisite is that the learner undertaking this unit is likely to be an Apprentice or an experienced operator seeking progression.

Assessment Context

During this work, the learner must take account of the relevant operational working practices, as they apply to the learner.

PPE could include:

- sight/hearing protection
- gloves
- footwear
- hard hats
- respirators.

Statutory and Operational Requirements could include:

- policies
- procedures
- instructions
- codes of practice
- standards
- schedules.

Appendix 1 Relationships to other qualifications

Links to other qualifications

These qualifications have connections to the:

- Level 2 Certificate in Process Engineering Maintenance **(0640-20)**
- Level 2 Diploma in Jetty Operations **(0640-21)**
- Level 2 Diploma in Bulk Liquid Operations **(0640-22)**
- Level 2 Diploma in Processing Operations: Hydrocarbons **(0640-23)**
- Level 3 Diploma in Process Engineering Maintenance **(0640-30)**
- Level 3 Diploma in Jetty Operations **(0640-31)**
- Level 3 Diploma in Processing Operations: Hydrocarbons **(0640-33)**
- Level 3 Diploma in Processing Operations: Hydrocarbons (Control room) **(0640-34)**

Appendix 2 Sources of general information

The following documents contain essential information for centres delivering City & Guilds qualifications. They should be referred to in conjunction with this handbook. To download the documents and to find other useful documents, go to the **Centres and Training Providers homepage** on **www.cityandguilds.com**.

Centre Manual - Supporting Customer Excellence contains detailed information about the processes which must be followed and requirements which must be met for a centre to achieve 'approved centre' status, or to offer a particular qualification, as well as updates and good practice exemplars for City & Guilds assessment and policy issues. Specifically, the document includes sections on:

- The centre and qualification approval process
- Assessment, internal quality assurance and examination roles at the centre
- Registration and certification of learners
- Non-compliance
- Complaints and appeals
- Equal opportunities
- Data protection
- Management systems
- Maintaining records
- Assessment
- Internal quality assurance
- External quality assurance.

Our Quality Assurance Requirements encompasses all of the relevant requirements of key regulatory documents such as:

- Regulatory Arrangements for the Qualifications and Credit Framework (2008)
- SQA Awarding Body Criteria (2007)
- NVQ Code of Practice (2006)

and sets out the criteria that centres should adhere to pre and post centre and qualification approval.

Access to Assessment & Qualifications provides full details of the arrangements that may be made to facilitate access to assessments and qualifications for learners who are eligible for adjustments in assessment.

The **centre homepage** section of the City & Guilds website also contains useful information such on such things as:

- **Walled Garden**: how to register and certificate learners on line
- **Qualifications and Credit Framework (QCF)**: general guidance about the QCF and how qualifications will change, as well as information on the IT systems needed and FAQs
- **Events**: dates and information on the latest Centre events
- **Online assessment**: how to register for e-assessments.

Useful contacts

UK learners **General qualification information**	**T: +44 (0)844 543 0033** **E: learnersupport@cityandguilds.com**
International learners General qualification information	T: +44 (0)844 543 0033 F: +44 (0)20 7294 2413 E: **intcg@cityandguilds.com**
Centres Exam entries, Certificates, Registrations/enrolment, Invoices, Missing or late exam materials, Nominal roll reports, Results	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 E: **centresupport@cityandguilds.com**
Single subject qualifications Exam entries, Results, Certification, Missing or late exam materials, Incorrect exam papers, Forms request (BB, results entry), Exam date and time change	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 F: +44 (0)20 7294 2404 (BB forms) E: **singlesubjects@cityandguilds.com**
International awards Results, Entries, Enrolments, Invoices, Missing or late exam materials, Nominal roll reports	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 E: **intops@cityandguilds.com**
Walled Garden Re-issue of password or username, Technical problems, Entries, Results, e-assessment, Navigation, User/menu option, Problems	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413 E: **walledgarden@cityandguilds.com**
Employer Employer solutions, Mapping, Accreditation, Development Skills, Consultancy	T: +44 (0)121 503 8993 E: **business@cityandguilds.com**
Publications Logbooks, Centre documents, Forms, Free literature	T: +44 (0)844 543 0000 F: +44 (0)20 7294 2413

About City & Guilds

As the UK's leading vocational education organisation, City & Guilds is leading the talent revolution by inspiring people to unlock their potential and develop their skills. We offer over 500 qualifications across 28 industries through 8500 centres worldwide and award around two million certificates every year. City & Guilds is recognised and respected by employers across the world as a sign of quality and exceptional training.

City & Guilds Group

The City & Guilds Group operates from three major hubs: London (servicing Europe, the Caribbean and Americas), Johannesburg (servicing Africa), and Singapore (servicing Asia, Australia and New Zealand). The Group also includes the Institute of Leadership & Management (management and leadership qualifications), City & Guilds Licence to Practice (land-based qualifications), the Centre for Skills Development (CSD works to improve the policy and practice of vocational education and training worldwide) and Learning Assistant (an online e-portfolio).

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