

**National Occupational Standards for
Well Services: Tubing Operations
Approved by UKCG**



**The Sector Skills Council for Chemicals, Nuclear, Oil and Gas, Petroleum
and Polymers**

REV.	Final	DATE	01/08/01
------	-------	------	----------

STANDARDS OF COMPETENCE FOR THE OFFSHORE PETROLEUM INDUSTRY

WELLSERVICES : TUBING OPERATIONS LEVEL 2

Mandatory units

CT1 PERFORM PRE-JOB (TUBING) OPERATIONS

- Establish operational requirements
- Select and check equipment
- Rig up equipment

CT2 **PERFORM POST-JOB (TUBING) OPERATIONS**

- **Rig down equipment**
- **Demobilise and store equipment**

Note that for the 2 units above, candidates must consistently follow 1 of 3 evidence routes viz:

1. Coiled Tubing
2. Nitrogen Pumping
3. Fluid pumping

C1 CONTRIBUTE TO THE HEALTH AND SAFETY OF THE WORKING ENVIRONMENT

- Conform to the statutory and general health and safety requirements
- Monitor and maintain the health and safety of self, other workers and visitors
- Monitor and maintain pollution control measures

C4 CONTRIBUTE TO THE CONTROL OF EMERGENCIES AND CRITICAL SITUATIONS

- Contribute to the control of critical situations
- Respond to emergencies in other areas

C6 ESTABLISH AND MAINTAIN EFFECTIVE WORKING RELATIONSHIPS

- Establish and maintain effective working relationships with colleagues
- Establish and maintain relationships with visitors to the working environment
- Establish and maintain effective communications with colleagues
- Carry out work handovers

Optional units (candidates must choose 1 of 3)

RUN THE COILED TUBING OPERATION (CT3) <ul style="list-style-type: none"> • Run the assembly in the hole • Carry out the well service operation • Pull the assembly out of the hole 	PROVIDE FLUIDS FOR THE OPERATION (CT4) <ul style="list-style-type: none"> • Prepare fluids • Pump fluids 	PROVIDE NITROGEN FOR THE OPERATION (CT5) <ul style="list-style-type: none"> • Prepare Nitrogen • Pump Nitrogen
--	---	---

Note:

Unit CT3 is for candidates who are following the Coiled Tubing evidence route

Unit CT4 is for candidates who are following the Pumping Fluids evidence route

Unit CT5 is for candidates who are following the Pumping Nitrogen evidence route

The SVQ/NVQ consists of 6 units.

REV.	Final	DATE	01/08/01
------	-------	------	----------

Unit CT1 : Perform Pre - job (Tubing) Operations

This unit is about performing pre-job (tubing) operations. You will be involved in activities such as:

- establishing operational requirements
- selecting and checking equipment
- rigging up equipment

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

In achieving this unit you will have provided evidence to your assessor that you have successfully met all of the required Standards of Performance. You will also have provided evidence to your assessor that you have all the knowledge and understanding which underpins the achievement of those Standards of Performance. This ensures that you can do the work, understand the work and so can react appropriately to any contingency which falls within your responsibility.

Unit Guidance

Evidence of competence

Evidence of your competence will be planned for and agreed with your Assessor. The evidence will then be generated and gathered over time by you. You will then present the evidence to your Assessor at a prearranged time/date.

This unit may be achieved by consistently following one of three 'evidence routes'. These are:

1. coiled tubing
2. fluid pumping
3. nitrogen pumping

Successful completion of one of the above evidence routes will count towards the full SVQ and will be recognised on the appropriate certificate.

To fully demonstrate your competence you must generate/gather/present evidence of:

- individual operation
- team operation
- use of PPE
- maintaining continuous communication
- cordoned off areas

Where you do not have the opportunity to cover all aspects of the Standards of Performance in the workplace, then your evidence may be supplemented by a realistic simulation and questioning. This will allow your Assessor to infer competence.

Evidence of Underpinning Knowledge and Understanding

Within the limits of your responsibility you must be able to demonstrate that you know:

- how to select, use and care for PPE (to include sight/hearing protection, gloves, footwear, hard hats, respirators)
- the implications of statutory (e.g. HASAWA and COSHH) and organisational requirements
- how to interpret operational requirements (e.g. policies, procedures, instructions, codes of practice, standards, schedules)
- how to work with and within the Permit to Work system
- the location of emergency shutdown and other relevant safety devices
- how to access and interpret relevant reference chart, graphs and well schematics
- how to access and interpret sources of information for well condition and limitations

REV.	Final	DATE	01/08/01
------	-------	------	----------

Element CT1.1 : Establish operational requirements

This element is about establishing operational requirements and includes checking to ensure that everything is available for the job.

Standards of Performance

In achieving this element you will have:

- a. effectively obtained operational instructions and organised the work of self and others
- b. clarified any difficulties with relevant personnel
- c. accurately confirmed the availability and status of relevant Permits to Work
- d. accurately identified and confirmed the availability of relevant third party utilities
- e. accurately confirmed the availability of consumables
- f. taken appropriate remedial action where errors, omissions and shortages have been identified
- g. accurately completed all relevant routine and non-routine calculations
- h. worked safely and in accordance with operational instructions

Evidence Requirements (see also Unit Guidance)

This element may be achieved by consistently following one of three 'evidence routes'. These are:

1. coiled tubing
2. fluid pumping
3. nitrogen pumping

Successful completion of one of the above evidence routes will count towards the full SVQ and will be recognised on the appropriate certificate.

Underpinning Knowledge and Understanding (see also Unit Guidance)

Within the limits of your responsibility you must be able to demonstrate that you know:

- how to access and interpret operational instructions (to include well sketches)
- who to report difficulties (to include unclear instructions, imprecise details, lack of info) to
- how to check the availability of third party utilities and consumables (to include lubricants, fuel, seals, job specific raw materials)
- how to identify errors, omissions and shortages and what remedial action is available to you (to include report, record, rectify)
- how to identify and confirm the availability of third party utilities (to include air, fuel, power, craneage, light, scaffolding, water)
- how to identify the appropriate oilfield calculations and carry them out accurately

REV.	Final	DATE	01/08/01
------	-------	------	----------

Element CT1.2 : Select and test equipment

This element is about selecting and testing equipment.

Standards of Performance

In achieving this element you will have:

- a. identified and selected equipment which conforms to the operational instructions
- b. confirmed the equipment functional and fit for purpose
- c. prepared an accurate schematic of the equipment assemblies
- d. accurately identified equipment defects and taken appropriate remedial action
- e. worked safely and in accordance with operational instructions

Evidence Requirements (see also Unit Guidance)

This element may be achieved by consistently following one of three 'evidence routes'. These are:

1. coiled tubing
2. fluid pumping
3. nitrogen pumping

Successful completion of one of the above evidence routes will count towards the full SVQ and will be recognised on the appropriate certificate.

Underpinning Knowledge and Understanding (see also Unit Guidance)

Within the limits of your responsibility you must be able to demonstrate that you know:

- chemical, physical and hazardous properties of materials and fluids used
- limitations of the material, equipment and the environment in which they are used
- the function and operating principles of equipment
- how to use internal and external diameter measuring equipment
- test procedures and how to interpret the results
- how to identify equipment defects and what remedial action is available to you (to include report, record, replace, repair, adjust)

REV.	Final	DATE	01/08/01
------	-------	------	----------

Element CT1.3 : Rig up equipment

This element is about rigging up equipment in readiness for operation.

Standards of Performance

In achieving this element you will have:

- a. sited the equipment for optimum use
- b. effectively confirmed the well to be in a condition for work to proceed
- c. confirmed the isolation barriers functional and fit for purpose
- d. effectively confirmed the equipment as functional and suitable for operation
- e. assembled the equipment in proper sequence
- f. identified faults and uncertainties in the assembly and taken appropriate remedial action
- g. handled the equipment using safe lifting and handling techniques
- h. worked safely in accordance with operational requirements

Evidence Requirements (see also Unit Guidance)

This element may be achieved by consistently following one of three 'evidence routes'. These are:

1. coiled tubing
2. fluid pumping
3. nitrogen pumping

Successful completion of one of the above evidence routes will count towards the full SVQ and will be recognised on the appropriate certificate.

Underpinning Knowledge and Understanding (see also Unit Guidance)

Within the limits of your responsibility you must be able to demonstrate that you know:

- how to site and assemble equipment (to include weight distribution, lifting equipment, order of use in assembly, zoning restrictions, line of sight)
- how to check and make a decision on the well condition
- principles of well control using mechanical barriers and hydrostatic fluids
- how to carry out bleeding down and pressure equalisation within equipment
- how to set and use the recording and monitoring devices and interpret the output
- function and operating principles of equipment
- limitations of the material, equipment and the environment in which they are used
- chemical, physical and hazardous properties of materials and fluids used
- how to identify equipment faults and uncertainties and what remedial action is available to you (to include report, record, repair, replace, adjust)
- depth and weight monitoring techniques (to include depth counters, weight indicators, recording devices)
- hazards that are likely to be encountered and how to deal with them

REV.	Final	DATE	01/08/01
------	-------	------	----------

Unit CT2 : Perform Post-job (Tubing) Operations

This unit is about performing post-job operations . You will be involved in activities such as:

- rigging down equipment
- demobilising and storing equipment

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

In achieving this unit you will have provided evidence to your assessor that you have successfully met all of the required Standards of Performance. You will also have provided evidence to your assessor that you have all the knowledge and understanding which underpins the achievement of those Standards of Performance. This ensures that you can do the work, understand the work and so can react appropriately to any contingency which falls within your responsibility.

Unit Guidance

Evidence of competence

Evidence of your competence will be planned for and agreed with your Assessor. The evidence will then be generated and gathered over time by you. You will then present the evidence to your Assessor at a prearranged time/date.

To fully demonstrate your competence you must generate/gather/present evidence of:

- individual operation
- team operation
- use of PPE
- maintaining continuous communication
- cordoned off areas

Where you do not have the opportunity to cover all aspects of the Standards of Performance in the workplace, then your evidence may be supplemented by a realistic simulation and questioning. This will allow your Assessor to infer competence.

Evidence of Underpinning Knowledge and Understanding

Within the limits of your responsibility you must be able to demonstrate that you know:

- how to select, use and care for PPE (to include sight/hearing protection, gloves, footwear, hard hats, respirators)
- the implications of statutory (e.g. HASAWA and COSHH) and organisational requirements
- how to interpret operational requirements (e.g. policies, procedures, instructions, codes of practice, standards, schedules)
- how to work with and within the Permit to Work system

REV.	Final	DATE	01/08/01
------	-------	------	----------

Element CT2.1 : Rig down equipment

This element is about rigging down the equipment.

Standards of Performance

In achieving this element you will have:

- a. confirmed the isolation barriers functional and fit for purpose
- b. dismantled the equipment in proper sequence
- c. accurately identified faults and defects in the assembly and taken appropriate remedial action
- d. handled the equipment using safe lifting and handling techniques
- e. worked safely in accordance with operational requirements

Evidence Requirements (see also Unit Guidance)

This element may be achieved by consistently following one of three 'evidence routes'. These are:

1. coiled tubing
2. fluid pumping
3. nitrogen pumping

Successful completion of one of the above evidence routes will count towards the full SVQ and will be recognised on the appropriate certificate.

Underpinning Knowledge and Understanding (see also Unit Guidance)

Within the limits of your responsibility you must be able to demonstrate that you know:

- principles of well control using mechanical barriers and hydrostatic fluids
- how to carry out bleeding down and pressure equalisation within equipment
- how to set and use the recording and monitoring devices and interpret the output
- function and operating principles of equipment
- limitations of the material, equipment and the environment in which they are used
- chemical, physical and hazardous properties of materials and fluids used
- how to identify equipment faults and defects and what remedial action is available to you (to include report, record, repair, replace, adjust)

REV.	Final	DATE	01/08/01
------	-------	------	----------

Element CT2.2 : Demobilise and store equipment

This element is about demobilising and storing equipment.

Standards of Performance

In achieving this element you will have:

- a. handled the equipment using safe lifting and handling techniques
- b. accurately identified damage and defects in the assembly and taken appropriate remedial action
- c. effectively protected the equipment and prepared it for transportation
- d. stored the equipment safely and securely in the designated location
- e. worked safely in accordance with operational requirements

Evidence Requirements (see also Unit Guidance)

This element may be achieved by consistently following one of three 'evidence routes'. These are:

1. coiled tubing
2. fluid pumping
3. nitrogen pumping

Successful completion one of the above evidence routes will count towards the full SVQ and will be recognised on the appropriate certificate.

Underpinning Knowledge and Understanding (see also Unit Guidance)

Within the limits of your responsibility you must be able to demonstrate that you know:

- how to prepare equipment for transportation (to include cleaning, checking for damage, storing)
- the paperwork associated with equipment transportation
- who to hand over the documentation to
- the protection requirements of special equipment

REV.	2	DATE	01/08/01
------	---	------	----------

Unit C1 : Contribute to the Health and Safety of the Working Environment

This unit is about contributing to the Health and Safety of your working environment. You will be involved in activities such as:

- conforming to the general and statutory health and safety requirements
- monitoring and maintaining the health and safety of self and others
- monitoring and maintaining pollution control measures

During this work you must take account of the relevant operational requirements and safe working practices **AS THEY APPLY TO YOU**.

In achieving this unit you will have provided evidence to your assessor that you have successfully met all of the required Standards of Performance. You will also have provided evidence to your assessor that you have all the knowledge and understanding which underpins the achievement of those Standards of Performance. This ensures that you can do the work, understand the work and so can react appropriately to any contingency which falls within your responsibility.

REV.	2	DATE	01/08/01
------	---	------	----------

Unit Guidance

Evidence of competence

Evidence of your competence will be planned for and agreed with your Assessor. The evidence will then be generated and gathered over time by you. You will then present the evidence to your Assessor at a prearranged time/date.

To fully demonstrate your competence you must generate/gather/present evidence of:

- individual operation
- team operation
- consideration of H₂S and other toxic substances
- maintaining continuous communication
- reacting to on-site emergencies

Where you do not have the opportunity to cover all aspects of the Standards of Performance in the workplace, then your evidence may be supplemented by a realistic simulation and questioning. This will allow your Assessor to infer competence.

Evidence of Underpinning Knowledge and Understanding

Within the limits of your responsibility you must be able to demonstrate that you know:

- how to select, use and care for PPE (to include sight/hearing protection, gloves, footwear, hard hats, respirators)
- the implications of statutory (e.g. HASAWA and COSHH) and organisational requirements
- how to interpret operational requirements (e.g. relevant policies, procedures, instructions, codes of practice, standards, schedules)

REV.	2	DATE	01/08/01
------	---	------	----------

Element 1 : Conform to the Statutory and General Health and Safety Requirements

This element is about conforming to the statutory (e.g. HASAWA and COSHH) and general (organisational) H&S requirements.

Standards of Performance

In achieving this element you will have:

- a. correctly selected and used the relevant PPE
- b. correctly used fire protection, first aid and survival equipment
- c. adhered to all procedures relevant to fire, accident and other emergency
- d. worked safely in accordance with operational requirements

Evidence Requirements

See Unit Guidance

Underpinning Knowledge and Understanding (see also Unit Guidance)

Within the limits of your responsibility you must be able to demonstrate that you know:

- how to obtain and interpret information on safety
- your own responsibilities as they relate to Organisational Safety Policy, Workplace Safety Policy, Evacuation Procedures, Fire Procedures.

REV.	2	DATE	01/08/01
------	---	------	----------

Element 2 : Monitor and Maintain Health and Safety of Self, Other Workers and Visitors

This element is about monitoring and maintaining your own H&S as well as that of others.

Standards of Performance

In achieving this element you will have

- a. ensured that the area within your own personal responsibility is maintained, clean and hazard free
- b. positioned and used relevant safety equipment (including machine guards) safely and securely
- c. correctly identified and reported unsafe equipment and potential danger
- d. correctly selected and used relevant PPE
- e. correctly handled all materials, tools and equipment
- f. worked safely in accordance with operational requirements

Evidence Requirements

See Unit Guidance.

Underpinning Knowledge and Understanding (see also Unit Guidance)

Within the limits of your responsibility you must be able to demonstrate that you know:

- how to implement workplace reporting procedures
- how to access fire protection, first aid and survival equipment
- how to deal with materials (e.g. flammable, toxic, corrosive, explosive, cryogenic, radioactive)
- your own responsibilities as they relate to Organisational Safety Policy
- how to use safe lifting and handling techniques

REV.	2	DATE	01/08/01
------	---	------	----------

Element 3 : Monitor and Maintain Pollution Control Measures

This unit is about monitoring and maintaining pollution control measures.

Standards of Performance

In achieving this element you will have

- a. monitored and controlled the discharges (liquid and gas) from your area to within prescribed limits
- b. correctly identified and reported unplanned discharges (liquid and gas)
- c. correctly selected and used PPE
- d. correctly identified, packaged, labelled and transferred materials for disposal
- e. worked safely in accordance with operational requirements

Evidence Requirements

See Unit Guidance.

Underpinning Knowledge and Understanding (see also Unit Guidance)

Within the limits of your responsibility you must be able to demonstrate that you know:

- how to deal with materials (e.g. flammable, toxic, corrosive, explosive, cryogenic, radioactive)
- your own responsibilities as they relate to Organisational Safety Policy; the Classification, Packaging and Labelling of Dangerous Substances Regulations; Environmental Protection Act

REV.	2	DATE	01/08/01
------	---	------	----------

Unit C4 : Contribute to the Control of Emergencies and Critical Situations

This unit is about contributing to the control of emergencies and critical situations. You will be involved in activities such as

- contributing to the control of critical situations
- responding to emergencies in other areas

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

In achieving this unit you will have provided evidence to your assessor that you have successfully met all of the required Standards of Performance. You will also have provided evidence to your assessor that you have all the knowledge and understanding which underpins the achievement of those Standards of Performance. This ensures that you can do the work, understand the work and so can react appropriately to any contingency which falls within your responsibility.

Unit Guidance

Evidence of competence

Evidence of your competence will be planned for and agreed with your Assessor. The evidence will then be generated and gathered over time by you. You will then present the evidence to your Assessor at a prearranged time/date.

To fully demonstrate your competence you must generate/gather/present evidence of:

- individual operation
- team operation
- consideration of H₂S and other toxic substances
- maintaining continuous communication
- reacting to on-site emergencies

Where you do not have the opportunity to cover all aspects of the Standards of Performance in the workplace, then your evidence may be supplemented by a realistic simulation and questioning. This will allow your Assessor to infer competence.

Evidence of Underpinning Knowledge and Understanding

Within the limits of your responsibility you must be able to demonstrate that you know:

- how to select, use and care for PPE (to include sight/hearing protection, gloves, footwear, hard hats, respirators)
- the implications of statutory (e.g. HASAWA and COSHH) and organisational requirements
- how to interpret operational requirements (e.g. relevant policies, procedures, instructions, codes of practice, standards, schedules)
- emergency procedures relevant to the workplace

REV.	2	DATE	01/08/01
------	---	------	----------

Element C4.1 : Contribute to the Control of Critical Situations

This element is about identifying critical situations within your own working area and reacting appropriately in order to assist with the control of those critical situations.

Standards of Performance

In achieving this element you will have

- a. identified developing and existing critical situations
- b. activated all relevant alarms and taken actions appropriate to the situation
- c. effectively monitored the situation and minimised risks to personnel, process, plant and equipment
- d. reported the critical situation correctly
- e. worked safely in accordance with operational requirements

Evidence Requirements

See Unit Guidance.

Underpinning Knowledge and Understanding (see also Unit Guidance)

Within the limits of your responsibility you must be able to demonstrate that you know:

- the operation of and potential implications of Emergency Shutdown systems
- the principles and operation of Fire and Gas control systems
- the internals of equipment and their function and operation

REV.	2	DATE	01/08/01
------	---	------	----------

Element C4.2 : Respond to Emergencies in Other Areas

This element is about reacting to emergencies in areas outwith but impacting upon your own working area.

Standards of Performance

In achieving this element you will have

- a. identified developing and existing critical situations
- b. activated all relevant alarms and taken actions appropriate to the situation
- c. reacted appropriately to information received
- d. taken immediate action to make the situation safe
- e. minimised risks to personnel, process, plant and equipment
- f. worked safely in accordance with operational requirements

Evidence Requirements

See Unit Guidance.

Underpinning Knowledge and Understanding (see also Unit Guidance)

Within the limits of your responsibility you must be able to demonstrate that you know:

- the installation/site layout
- the effect and potential implications of loss of any utility and its reinstatement
- how to react appropriately (e.g. make safe; isolate; shutdown; evacuate the work area)

Unit C6: Establish and Maintain Effective Working Relationships

This unit is about establishing and maintaining effective working relationships. You will be involved in activities such as

- establishing and maintaining effective working relationships with colleagues
- establishing and maintaining relationships with visitors to the working environment
- establishing and maintaining effective communications with colleagues
- carrying out work handovers
-

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

In achieving this unit you will have provided evidence to your assessor that you have successfully met all of the required Standards of Performance. You will also have provided evidence to your assessor that you have all the knowledge and understanding which underpins the achievement of those Standards of Performance. This ensures that you can do the work, understand the work and so can react appropriately to any contingency which falls within your responsibility.

Unit Guidance

Evidence of competence

Evidence of your competence will be planned for and agreed with your Assessor. The evidence will then be generated and gathered over time by you. You will then present the evidence to your Assessor at a prearranged time/date.

To fully demonstrate your competence you must generate/gather/present evidence of your involvement in and contribution to:

- informal meetings
- formal meetings
- normal work situation
- team briefings

Where you do not have the opportunity to cover all aspects of the Standards of Performance in the workplace, then your evidence may be supplemented by a realistic simulation and questioning. This will allow your Assessor to infer competence.

Evidence of Underpinning Knowledge and Understanding

Within the limits of your responsibility you must be able to demonstrate that you know:

Unit wide Underpinning Knowledge and understanding

- the implications of statutory (e.g. HASAWA and COSHH) and organisational requirements
- how to interpret operational requirements (e.g. relevant policies, procedures, instructions, codes of practice, standards, schedules)

REV.	2	DATE	01/08/01
------	---	------	----------

Element C6.1 : Establish and Maintain Effective Working Relationships with Colleagues

This element is about establishing and maintaining effective working relationships with your co-workers, supervisors, managers, other company employees and third parties.

Standards of Performance

In achieving this element you will have

- a. treated colleagues in a manner which promotes and maintains goodwill
- b. promptly and willingly met reasonable requests from colleagues
- c. provided clear, accurate and prompt information regarding daily work schedules to colleagues
- d. supported and offered help to colleagues who are in work related difficulties
- e. promptly and effectively reported breakdowns in working relationships
- f. worked safely in accordance with operational requirements

Evidence Requirements

See Unit Guidance.

Underpinning Knowledge and Understanding (see also Unit Guidance)

Within the limits of your responsibility you must be able to demonstrate that you know:

- your own responsibilities within your organisation
- how to recognise reasonable requests
- what is considered essential information regarding daily work schedules
- when a working relationship has broken down

REV.	2	DATE	01/08/01
------	---	------	----------

Element C6.2 : Establish and Maintain Relationships with Visitors to the Working Environment

This element is about establishing and maintaining relationships with visitors to your working environment. Visitors include approved and authorised visitors.

Standards of Performance

In achieving this element you will have

- a. greeted visitors in a manner which promotes goodwill
- b. provided visitors with clear and sufficient information (oral, written and visual) to meet their identified need
- c. promptly passed on requests for information outwith your own responsibility to the relevant personnel
- d. effectively ensured that visitors are not endangered through your acts or omissions
- e. worked safely in accordance with operational requirements

Evidence Requirements

See Unit Guidance.

Underpinning Knowledge and Understanding (see also Unit Guidance)

Within the limits of your responsibility you must be able to demonstrate that you know:

- the limits of your responsibilities
- policies and procedures regarding visitors

REV.	2	DATE	01/08/01
------	---	------	----------

Element C6.3 : Establish and Maintain Effective Communications with Colleagues

This unit is about establishing and maintaining effective communications with your co-workers, supervisors, managers, other company employees and third parties.

Standards of Performance

In achieving this element you will have

- a. effectively delivered clear, concise, accurate and unambiguous communications
- b. accurately identified difficulties in interpretation of information and sought prompt clarification
- c. worked safely and in accordance with operational requirements

Evidence Requirements

See unit Guidance.

Underpinning Knowledge and Understanding

Within the limits of your responsibility you must be able to demonstrate that you know:

- What specific statutory requirements (e.g. HASAW, COSHH) apply to the way in which you communicate with others
- What specific terms of communication you would adopt with colleagues and how these relate to company procedures, policies etc.

REV.	2	DATE	01/08/01
------	---	------	----------

Element C6.4 : Carry out Work Handovers

This element is about carrying out work handovers.

Standards of Performance

In achieving this element you will have

- a. effectively recorded all relevant information
- b. ensured that information given to you on current operational status is accurate and complete
- c. ensured that information given by you on current operational status is accurate and complete
- d. effectively communicated all relevant operating instructions
- e. left your work area clean and hazard free
- f. worked safely and in accordance with operational requirements

Evidence Requirements (See also Unit Guidance)

To fully demonstrate your competence you must generate/gather/present evidence of your involvement in and contribution to handovers:

- to next shift
- from previous shift
- to next job
- from previous job
- to next person
- from previous person

Underpinning Knowledge and Understanding (see also Unit Guidance)

Within the limits of your responsibility you must be able to demonstrate that you know:

- how to work with and within the Permit to Work system
- how to identify and control and minimise work area hazards
- the relevant personnel who are to give and receive information to and from you

REV.	2	DATE	01/08/01
------	---	------	----------

Unit CT3 : Run the Coiled Tubing Operation

This unit is about running the coiled tubing operation. You will be involved in activities such as:

- running the assembly in the hole
- carrying out the well service operation
- pulling the assembly out of the hole

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

In achieving this unit you will have provided evidence to your assessor that you have successfully met all of the required Standards of Performance. You will also have provided evidence to your assessor that you have all the knowledge and understanding which underpins the achievement of those Standards of Performance. This ensures that you can do the work, understand the work and so can react appropriately to any contingency which falls within your responsibility.

Unit Guidance

Evidence of competence

Evidence of your competence will be planned for and agreed with your Assessor. The evidence will then be generated and gathered over time by you. You will then present the evidence to your Assessor at a prearranged time/date.

This unit can be achieved only by consistently following the COILED TUBING 'evidence route'.

Successful completion of this evidence route will count towards the full SVQ and will be recognised on the appropriate certificate.

To fully demonstrate your competence you must generate/gather/present evidence of:

- individual operation
- team operation
- use of PPE
- maintaining continuous communication
- cordoned off areas

Where you do not have the opportunity to cover all aspects of the Standards of Performance in the workplace, then your evidence may be supplemented by a realistic simulation and questioning. This will allow your Assessor to infer competence.

REV.	2	DATE	01/08/01
------	---	------	----------

Evidence of Underpinning Knowledge and Understanding

Within the limits of your responsibility you must be able to demonstrate that you know:

- how to select, use and care for PPE (to include sight/hearing protection, gloves, footwear, hard hats, respirators)
- the implications of statutory (e.g. HASAWA and COSHH) and organisational requirements
- how to interpret operational requirements (e.g. policies, procedures, instructions, codes of practice, standards, schedules)
- how to work with and within the Permit to Work system
- chemical, physical and hazardous properties of materials and fluids used
- the limitations of the material, equipment and the environment in which they are used
- the relevant oilfield calculations and how to carry them out accurately
- how to set and use the recording and monitoring devices and interpret the output
- the location of the emergency shutdown and other relevant safety devices
- principles of well control using mechanical barriers and hydrostatic fluids
- how to carry out bleeding down and pressure equalisation within equipment
- how to access and interpret relevant reference charts and graphs (to include well schematics)
- the function and operating principles of equipment
- how to run and maintain the assembly within required parameters (to include speed, string weight, pump rate, pump pressure, depth, cycle logging, hydraulic system pressures (stripper, BOP, injector head, chain traction, chain tension, reel), accumulators)
- test procedures and how to interpret the results
- how to identify equipment defects and what remedial action is available to you (to include report, record, replace, repair, adjust)

REV.	2	DATE	01/08/01
------	---	------	----------

Element CT3.1 : Run assembly in the hole

This element is about running the coiled tubing assembly in the hole.

Standards of Performance

In achieving this element you will have:

- a. confirmed running controls to be preset to required reference datums
- b. confirmed effective and adequate siting of isolation barriers and their fitness for purpose
- c. effectively equalised the pressures and entered the wellbore
- d. effectively run the assembly in the hole within agreed parameters
- e. accurately identified deviations from running parameters and taken appropriate remedial action
- f. accurately recorded all relevant information
- g. worked safely in accordance with operational requirements

Evidence Requirements (see also Unit Guidance)

This element can be achieved only by consistently following the COILED TUBING 'evidence route'.

Underpinning Knowledge and Understanding (see also Unit Guidance)

Within the limits of your responsibility you must be able to demonstrate that you know:

- the principles of running controls (to include depth counter, weight indicator, pressure gauges, recording devices) and preset datums
- the principles of pressure equalisation (to include wellbore, surface equipment, coiled tubing)
- what data is required and the required frequency of reading

REV.	2	DATE	01/08/01
------	---	------	----------

Element CT3.2 : Carry out the Well Service Operation

This element is about carrying out the coiled tubing well service operation.

Standards of Performance

In achieving this element you will have:

- a. effectively maintained operation within operating parameters
- b. accurately identified faults and defects and taken appropriate remedial action
- c. accurately recorded all relevant information
- d. worked safely in accordance with operational requirements

Evidence Requirements (see also Unit Guidance)

This element can be achieved only by consistently following the COILED TUBING 'evidence route'.

Underpinning Knowledge and Understanding (see also Unit Guidance)

Within the limits of your responsibility you must be able to demonstrate that you know:

- what information/data is required and the required frequency of reading
- how to identify equipment faults and defects and what remedial action is available to you (to include report, record, rectify)

REV.	2	DATE	01/08/01
------	---	------	----------

Element CT3.3 : Pull Assembly Out of the Hole

This element is about pulling the tubing assembly out of the hole.

Standards of Performance

In achieving this element you will have:

- a. effectively pulled the assembly to the surface within agreed parameters
- b. effectively removed the assembly from the wellbore
- c. confirmed effective and adequate siting of isolation barriers and their fitness for purpose
- d. effectively depressurised the surface equipment prior to rig down and left the well in a safe condition
- e. accurately recorded all relevant information and data
- f. effectively prepared a complete and accurate report of all operations and submitted it to the relevant personnel
- g. worked safely in accordance with operational requirements

Evidence Requirements (see also Unit Guidance)

This element can be achieved only by consistently following the COILED TUBING 'evidence route'.

Underpinning Knowledge and Understanding (see also Unit Guidance)

Within the limits of your responsibility you must be able to demonstrate that you know:

- how to identify deviations and what remedial action is available to you (to include report, record, repair, adjust)
- what information is required and the required frequency of reading
- the required content of the final report and who to pass it to on completion (to include supervisor, manager, client representative)

REV.	2	DATE	01/08/01
------	---	------	----------

Unit CT4 : Provide Fluids for the Operation

This unit is about providing fluids, other than Nitrogen, for the operation. You will be involved in activities such as:

- preparing fluids
- pumping fluids

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

In achieving this unit you will have provided evidence to your assessor that you have successfully met all of the required Standards of Performance. You will also have provided evidence to your assessor that you have all the knowledge and understanding, which underpins the achievement of those Standards of Performance. This ensures that you can do the work, understand the work and so can react appropriately to any contingency, which falls within your responsibility.

Unit Guidance

Evidence of competence

Evidence of your competence will be planned for and agreed with your Assessor. The evidence will then be generated and gathered over time by you. You will then present the evidence to your Assessor at a prearranged time/date.

This unit can be achieved only by consistently following the FLUID PUMPING 'evidence route'.

Successful completion of this evidence route will count towards the full SVQ and will be recognized on the appropriate certificate.

To fully demonstrate your competence you must generate/gather/present evidence of:

- Individual operation
- team operation
- use of PPE
- maintaining continuous communication
- cordoned off areas

This requires successful completion of the unit (see each specific element for greater detail) through evidence generated/gathered/presented by you on the following equipment:

- pumps
- tanks
- treating iron
- mixing
- filtration
- hoses

Where you do not have the opportunity to cover all aspects of the Standards of Performance in the workplace, then your evidence may be supplemented by a

REV.	2	DATE	01/08/01
------	---	------	----------

realistic simulation and questioning. This will allow your Assessor to infer competence.

Evidence of Underpinning Knowledge and Understanding

Within the limits of your responsibility you must be able to demonstrate that you know:

- how to select, use and care for PPE (to include sight/hearing protection, gloves, footwear, hard hats, respirators)
- the implications of statutory (to include HASAWA and COSHH) and organisational requirements
- how to interpret operational requirements (to include policies, procedures, instructions, codes of practice, standards, schedules)
- the remedial actions open to you (to include report, record, adjust, repair, isolate, clean)
- how to work with and within the Permit to Work system
- the relevant oilfield calculations and how to carry them out
- the location of emergency shutdown and other relevant safety devices
- the chemical, physical and hazardous properties of materials used
- the limitations of materials and equipment used
- the limitations of the material, equipment and the environment in which they are used
- the nature and potential effect of the well environment on operations and equipment
- how to interpret instrument signals
- the function and operating principles of equipment

REV.	2	DATE	01/08/01
------	---	------	----------

Element CT4.1 : Provide fluids for the operation

This element is about providing the fluids, other than Nitrogen, for the operation.

Standards of Performance

In achieving this element you will have:

- a. accurately confirmed the availability of sufficient quantities and types of fluids for the operation
- b. accurately confirmed that the equipment is clean and free from contamination
- c. effectively and accurately mixed the fluids and additives
- d. effectively obtained, labelled and stored samples
- e. accurately identified defects in the equipment and fluids and taken appropriate remedial action
- f. effectively dealt with spillages
- g. worked safely in accordance with operational requirements

Evidence Requirements (see also Unit Guidance)

This element can be achieved only by consistently following the FLUID PUMPING 'evidence route'.

Underpinning Knowledge and Understanding (see also Unit Guidance)

Within the limits of your responsibility you must be able to demonstrate that you know:

- the appropriate chemical handling procedures
- the fluid mix parameters (to include volume, density, viscosity, PH value)
- how to carry out the appropriate test procedures and how to interpret the results
- how to take, label and store representative samples
- how to deal with spillages

REV.	2	DATE	01/08/01
------	---	------	----------

Element CT4.2 : Pump fluids

This element is about pumping the fluids other than Nitrogen.

Standards of Performance

In achieving this element you will have:

- a. effectively confirmed the recording and monitoring devices as fit for purpose and set to the required datums
- b. effectively operated the equipment and equalised the pressure across the relevant isolation barriers and surface pressure equipment
- c. accurately identified faults and defects and taken appropriate remedial action
- d. effectively shut down the equipment
- e. accurately recorded all relevant information
- f. worked safely in accordance with operational requirements

Evidence Requirements (see also Unit Guidance)

This element can be achieved only by consistently following the FLUID PUMPING 'evidence route'.

Underpinning Knowledge and Understanding (see also Unit Guidance)

Within the limits of your responsibility you must be able to demonstrate that you know:

- the principles of recording and monitoring devices and how to set the datums (to include flow rate, pressure, density, PH levels, volume)
- methods of pressure equalisation
- how to shut down the equipment
- what information is required and the required frequency of reading

REV.	2	DATE	01/08/01
------	---	------	----------

Unit CT5 : Provide Nitrogen for the Operation

This unit is about providing Nitrogen for the operation. You will be involved in activities such as:

- preparing Nitrogen
- pumping Nitrogen

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

In achieving this unit you will have provided evidence to your assessor that you have successfully met all of the required Standards of Performance. You will also have provided evidence to your assessor that you have all the knowledge and understanding which underpins the achievement of those Standards of Performance. This ensures that you can do the work, understand the work and so can react appropriately to any contingency which falls within your responsibility.

Unit Guidance

Evidence of competence

Evidence of your competence will be planned for and agreed with your Assessor. The evidence will then be generated and gathered over time by you. You will then present the evidence to your Assessor at a prearranged time/date.

This unit can be achieved only by consistently following the NITROGEN PUMPING 'evidence route'.

Successful completion of this evidence route will count towards the full SVQ and will be recognised on the appropriate certificate.

To fully demonstrate your competence you must generate/gather/present evidence of:

- individual operation
- team operation
- use of PPE
- reacting to on-site emergencies
- cordoned off areas

This requires successful completion of the unit (see each specific element for greater detail) through evidence generated/gathered/presented by you on the following equipment:

- | | |
|--|--|
| <ul style="list-style-type: none"> • pumps • tanks | <ul style="list-style-type: none"> • treating iron • hoses |
|--|--|

Where you do not have the opportunity to cover all aspects of the Standards of Performance in the workplace, then your evidence may be supplemented by a

REV.	2	DATE	01/08/01
------	---	------	----------

realistic simulation and questioning. This will allow your Assessor to infer competence.

Evidence of Underpinning Knowledge and Understanding

Within the limits of your responsibility you must be able to demonstrate that you know:

- how to select, use and care for PPE (to include sight/hearing protection, gloves, footwear, hard hats, respirators)
- the implications of statutory (to include HASAWA and COSHH) and organisational requirements
- how to interpret operational requirements (to include policies, procedures, instructions, codes of practice, standards, schedules)
- the remedial actions open to you (to include report, record, adjust, repair, isolate, clean)
- how to work with and within the Permit to Work system
- the relevant oilfield calculations and how to carry them out
- the location of emergency shutdown and other relevant safety devices
- the chemical, physical and hazardous properties of materials used
- the limitations of the material, equipment and the environment in which they are used
- the nature and potential effect of the well environment on operations and equipment
- how to interpret instrument signals
- the function and operating principles of equipment

REV.	2	DATE	01/08/01
------	---	------	----------

Element CT5.1 : Prepare Nitrogen

This element is about preparing the Nitrogen for the operation.

Standards of Performance

In achieving this element you will have:

- a. accurately confirmed the availability of sufficient quantities of Nitrogen for the operation
- b. accurately and effectively confirmed that the equipment and Nitrogen are conditioned
- c. accurately identified faults and defects and taken appropriate remedial action
- d. effectively dealt with spillages
- e. worked safely in accordance with operational requirements

Evidence Requirements (see also Unit Guidance)

This element can be achieved only by consistently following the NITROGEN PUMPING 'evidence route'.

Underpinning Knowledge and Understanding (see also Unit Guidance)

Within the limits of your responsibility you must be able to demonstrate that you know:

- how to determine the condition of Nitrogen and equipment
- how to deal with spillages

REV.	2	DATE	01/08/01
------	---	------	----------

Element CT5.2 : Pump Nitrogen

This element is about pumping Nitrogen.

Standards of Performance

In achieving this element you will have:

- a. effectively confirmed the recording and monitoring devices as fit for purpose and set to the required datums
- b. effectively operated the equipment and equalised the pressure across the relevant isolation barriers and surface pressure equipment
- c. accurately identified faults and defects and taken appropriate remedial action
- d. effectively shut down the equipment
- e. accurately recorded all relevant information
- f. worked safely in accordance with operational requirements

Evidence Requirements (see also Unit Guidance)

This element can be achieved only by consistently following the NITROGEN PUMPING 'evidence route'.

Underpinning Knowledge and Understanding (see also Unit Guidance)

Within the limits of your responsibility you must be able to demonstrate that you know:

- the principles of recording and monitoring devices and how to set the datums (to include flow rate, pressure, density, PH levels, volume)
- methods of pressure equalisation
- how to shut down the equipment
- what information is required and the required frequency of reading