

Occupation Profile

Modern Apprenticeship in Aquaculture Production for Shellfish Operatives and Technicians SCQF Level 5

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Purpose

This occupation profile consists of 19 work situations routinely carried out in Aquaculture Production for shellfish operative and technician roles. The first nine are mandatory to all apprentices, including one relating only to knowledge and understanding. Apprentices must also achieve a minimum of three of the remaining 10 optional work situations.

Collectively these describe all the performance requirements and knowledge and understanding requirements apprentices need to demonstrate competence in the occupation. These are set out as follows

- Work situation title, goal, brief outline, performance requirements and knowledge and understanding requirements



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Goal of work situation:

To maintain aquaculture facilities and equipment in a good state of cleanliness and repair in line with site operating procedures.

Brief outline:

This is about maintaining aquaculture production facilities. It involves regular checks, cleaning, maintenance and repair of facilities as well as maintaining hygiene and biosecurity, water quality and environmental conditions, safety and security of the stock against predators and loss, monitoring of waste and discharge from facilities, and maintaining records.

Note: Individuals are likely to be working in either fish or shellfish operations and facilities could be on- or off-shore.

Performance requirements

1. Carrying out regular checks on aquaculture facilities to determine their condition and need for maintenance and repair, in line with site operating procedures
2. Cleaning aquaculture facilities and equipment in line with site operating procedures
3. Carrying out routine maintenance and repairs on aquaculture facilities in line with site operating procedures
4. Checking pest and predator measures and devices to confirm they are working effectively to maintain the security of aquaculture stock
5. Maintaining stock containment measures in accordance with site operating procedures
6. Maintaining environmental conditions and water quality to support the health and welfare of aquaculture stock
7. Carrying out regular checks to confirm site back-up systems are operational
8. Monitoring waste and discharge from aquaculture facilities in accordance with site operating procedures
9. Recording and reporting aquaculture facilities maintenance information in line with site requirements

Knowledge and understanding requirements

1. Relevant health and safety procedures, how to identify hazards and assess risks, safe systems of work and the personal protective equipment (PPE) required for maintaining aquaculture facilities
2. Site requirements and industry codes of practice relating to fish farming practices, containment of stock and the environment
3. The importance of carrying out regular checks on aquaculture facilities and methods and equipment that can be used to assist with this
4. The importance of routine maintenance and repair to aquaculture facilities and health and safety requirements for equipment used to carry out maintenance
5. Signs that indicate the need for maintenance and repair of aquaculture facilities
6. How aquaculture facilities and equipment should be cleaned
7. Site operating procedures for maintaining hygiene and biosecurity in aquaculture facilities
8. The equipment, methods and expertise used to maintain and repair nets and other aquaculture equipment and facilities
9. How the design and construction of holding units and handling equipment supports containment of the aquaculture stock being farmed
10. Common pests and predators and signs that can indicate potential predator activity

11. Relevant legal pest and predator preventative measures and devices
12. Causes of containment failure and loss of stock and the implications of this
13. Environmental conditions and water quality requirements for aquaculture stock being farmed and how these are maintained
14. Site back-up systems, including when and how they are used to maintain environmental conditions and water quality, and deal with emergencies
15. Why it is important to minimise environmental impact during routine maintenance and repair activities on aquaculture facilities
16. Site requirements controlling water usage and discharge from aquaculture facilities
17. Site operating procedures for controlling the disposal of mortalities and waste
18. The environmental impact of your work activities, working practices that promote sustainability and why this is important
19. Site requirements for recording and reporting aquaculture facilities maintenance information

Work Situation

URN: SDS 0101

Maintaining aquaculture stock health and welfare

Goal of work situation:

To maintain the health and welfare of aquaculture stock to meet the requirements of production plans in line with site operating procedures.

Brief outline:

This is about maintaining the health and welfare of aquaculture stock in a production environment. This involves implementing site health plans and other health and welfare standards, monitoring and maintaining stocking densities and environmental conditions, recognising and dealing with the presence of diseases and parasites, and maintaining mortality and stock records.

Site health plans could include Fish Health Plans, Veterinary Health and Welfare Plans, other health plans and the requirements of Food Standards Scotland, RSPCA or other accreditation schemes.

Note: Individuals are likely to be working in either fish or shellfish operations

Performance requirements

1. Conducting regular checks of aquaculture stock health and welfare, including cleaner fish where they are used, in line with site operating procedures
2. Maintaining communication with all those involved in maintaining aquaculture stock health and welfare using relevant communication methods
3. Collecting regular information on stock growth and development in line with the requirements of the production plan and site operating procedures
4. Taking samples of aquaculture stock to check weight, and the presence of toxins, parasites or disease, in line with site health plans
5. Using handling methods which minimise stress in the aquaculture stock
6. Conducting regular checks on environmental conditions to ensure they meet the requirements of the species being farmed
7. Maintaining optimum stocking densities to meet the requirements of the species being farmed and the stage of development

Knowledge and understanding requirements

1. Relevant health and safety procedures, how to identify hazards and assess risks, safe systems of work and the personal protective equipment (PPE) required for aquaculture work
2. The requirements of relevant animal health and welfare standards, industry codes of practice and site health plans for the health and welfare of aquaculture stock
3. The importance of maintaining communication with all those involved in maintaining aquaculture stock health and welfare
4. Health and welfare requirements for the species being farmed and how these are maintained within holding units
5. The monitoring and sampling that needs to be carried out to check the health and welfare of stock, including cleaner fish where they are used, how these are carried out and how often these should be done
6. The data that needs to be collected to monitor stock health and welfare and the importance of accuracy
7. The handling methods used to minimise stress in the aquaculture stock and how to recognise stress

8. Monitoring and recording mortality rates in line with site requirements
9. Identifying health and welfare problems in the species being farmed and taking the required action in line with site health plans
10. Seeking advice to address suspected health problems
11. Implementing aquaculture stock treatments in line with site operating procedures
12. Monitoring stock during and after treatments in line with site operating procedures
13. Maintaining hygiene and biosecurity in line with site operating procedures
14. Using quarantine and isolation measures to minimise risk of disease introduction or spread
15. Recording and reporting information on aquaculture stock health and welfare and treatments given in line with site requirements

8. How anaesthetics can be used to minimise the stress caused to stock in the collection of data and how to check that the correct amount of anaesthetic is administered
9. The standard measurements that are commonly used to specify the size of individual fish or shellfish
10. The environmental conditions required by the species being farmed and how they can be maintained and adjusted
11. The equipment and methods used to sample and assess environmental conditions such as water temperature, plankton, oxygen, salinity, visibility etc
12. How to establish and maintain optimum stocking densities for the holding units, depending on the species being farmed
13. Why mortalities should be removed, and cause of death recorded, and how variations in mortality can be used to indicate the condition of stock
14. The anatomy of a healthy fish or shellfish
15. The common diseases and parasites of the aquaculture species being farmed and how to recognise them
16. Health emergencies and how it is possible to limit their impact on aquaculture stock and who to contact to obtain a professional diagnosis
17. Notifiable diseases and the actions to take if their presence is suspected
18. The use of quarantine to minimise risk of disease introduction and isolation to minimise the spread of disease
19. Common preventative treatments including use of biological controls such as cleaner fish
20. Common responsive treatments used to treat health problems in the aquaculture species being farmed and the methods used to safely administer internal and external treatments
21. The importance of preparing and administering treatments according to legal requirements, veterinary instructions, the requirements of relevant site health plans or standards and the importance of training to administer treatments
22. Why it is important to control treatments to protect other stock and the environment and when treated stock need to be isolated and controlled
23. The emergency actions to take in response to any adverse effects caused by treatments

24. The purpose of withdrawal periods, how to calculate them and the legal restrictions associated with withdrawal periods
25. The importance of monitoring treated stock both during and after treatment
26. Site procedures for the safe disposal of unused and spent treatments
27. Site procedures for maintaining hygiene and biosecurity and the importance of this to the health and welfare of aquaculture stock
28. Site requirements for recording and reporting information on aquaculture stock health and welfare and treatments given

Work Situation

Maintaining hygiene and biosecurity

URN: SDS 0121

Goal of work situation:

To maintain hygiene and biosecurity to minimise risk of contamination and disease in line with organisation procedures.

Brief outline:

This is about maintaining hygiene and biosecurity to protect from the introduction and spread of disease. This involves following organisation procedures which could include cleaning and disinfection, personal hygiene and use of quarantine and isolation. The exact arrangements will vary depending on the organisation and the activities carried out.

Performance requirements

1. Following organisation procedures to maintain hygiene and biosecurity
2. Using chemicals safely and correctly to clean and disinfect equipment, tools and machinery in accordance with organisation procedures
3. Preventing and minimising impact of hygiene and biosecurity measures on the environment, in line with organisation procedures
4. Checking visitors use correct hygiene and biosecurity procedures
5. Using quarantine and isolation to minimise risk of disease introduction and spread
6. Reporting any concerns regarding hygiene and biosecurity, in line with organisation procedures
7. Recording and reporting hygiene and biosecurity maintenance in line with organisation requirements

Knowledge and understanding requirements

1. Why hygiene and biosecurity are important to your industry and organisation and consequences of poor hygiene and biosecurity
2. Industry codes of practice and organisation procedures for maintaining hygiene and biosecurity
3. The importance of everyone following organisation hygiene and biosecurity procedures
4. The correct use and storage of chemicals used for cleaning and disinfecting and potential impact of use of chemicals on the environment
5. How contamination and cross-contamination occurs and possible consequences for the organisation and the environment
6. The use of quarantine to minimise risk of disease introduction and isolation to minimise the spread of disease
7. Procedures to follow when concerns about hygiene and biosecurity occur
8. Legal and organisation requirements for recording and reporting hygiene and biosecurity measures

Goal of work situation:

To maintain health, safety and security in line with legislative and organisation procedures to protect yourself and others from the risk of harm and injury.

Brief outline:

This is about maintaining the health, safety and security of yourself and others who may be affected by your work. This involves following set health and safety procedures and identifying unsafe situations in the workplace and during work activities. This also involves understanding the main risks to health, safety and security in the workplace and the using control measures and safe systems of work put in place. In the event of incidents and emergencies required procedures must be followed.

Security could include land, buildings, equipment and machinery, stock, resources, personnel and information.

Performance requirements

1. Identifying hazards and assessing risks to health, safety and security when carrying out your work
2. Taking required actions in response to identified hazards and risks in line with organisation procedures
3. Applying control measures put in place to eliminate and to reduce risks and adopting safe systems of work
4. Using clothing and PPE suitable to carry out activities
5. Checking PPE regularly and in accordance with manufacturers' instructions
6. Following organisation security procedures to prevent risks to security
7. Preparing, using, maintaining and storing equipment and machinery in accordance with relevant legislation, manufacturers' instructions and organisation requirements
8. Recording and reporting health, safety and security information in accordance with legal and organisation requirements

Knowledge and understanding requirements

1. Health and safety legislation and codes of practice, the legal responsibilities of employers and employees and the importance of following these
2. The difference between "hazard" and "risk", and how to identify hazards and assess risks when carrying out your work
3. The importance of regular risk assessment and what actions to take when risks are identified
4. The particular risks associated with your area of work, which could include personal injury, contracting disease and other physical and mental health problems
5. The effects that work-related accidents and ill health can have on workers and businesses and the importance of minimising these
6. The potential risks to others from your work activities
7. The hierarchy of measures to control risks which can be put in place
8. The importance of good housekeeping in the workplace in maintaining health and safety

9. The importance of following procedures to maintain workplace security
10. Key requirements of the regulations relating to the handling, use and storage of potentially hazardous substances
11. Safe methods of checking, preparing, using, maintaining and storing equipment and machinery
12. Risks of injury associated with lifting and handling and how these can be minimised
13. Suitable clothing and personal protective equipment (PPE) required for work in your industry and the importance of regularly checking and maintaining PPE
14. Risks of working in isolation, in remote locations or potentially dangerous situations and the need for safe systems of work to be followed including communication and emergency procedures
15. Actions to take in the event of incidents and emergencies including accidents and near misses
16. Legislative and organisational requirements for recording and reporting on health, safety and security issues and matters

Goal of work situation:

To use equipment and machinery in accordance with manufacturer's instructions, regulatory requirements and organisation procedures to maintain the safety of yourself and others

Brief outline:

This is about using equipment and machinery to perform daily tasks. It involves carrying out pre-use checks to confirm the equipment and machinery continues to operate safely, using the equipment and machinery to carry out tasks and storing it safely and securely after use. This includes digital, automated, or advanced technology and other specialised equipment and machinery used within your job role.

Note: individuals may be using equipment or machinery, or both.

Performance requirements

1. Completing all training and certification required to use required equipment and machinery in accordance with legislative and organisation requirements
2. Identifying hazards and using required PPE when operating equipment and machinery in accordance with manufacturer's instructions
3. Preparing equipment and machinery ready for use in accordance with manufacturer's instructions
4. Carrying out pre-use checks on equipment and machinery in accordance with relevant legal requirements and manufacturer's instructions
5. Operating equipment and machinery in accordance with relevant legislation, manufacturer's instructions and organisation procedures whilst ensuring the safety of self and others
6. Using attachments safely and correctly in accordance with manufacturer's instructions
7. Identifying problems with equipment and machinery and taking the required action
8. Shutting down equipment and machinery after use to maintain safety

Knowledge and understanding requirements

1. Relevant health and safety procedures, how to identify hazards and assess risks, safe systems of work and the personal protective equipment (PPE) required for operating equipment and machinery
2. The relevant legal requirements, licences, certification, codes of practice, training and organisational requirements for the use of equipment and machinery
3. How to prepare equipment and machinery before use, including attachments where used, and the pre-use checks and actions required
4. How to operate equipment and machinery safely and correctly in accordance with manufacturer's instructions and organisation procedures
5. How to maintain the safety of self and others when using equipment and machinery
6. The capabilities and limitations of the equipment and machinery being used and the factors that may affect safety and efficiency
7. The types of attachments, where required, that are safe for use with the equipment and machinery being used, how to fit them safely and correctly and how to set and calibrate them
8. How to operate and use relevant attachments safely

9. Maintaining the security of equipment and machinery at all times in accordance with organisation procedures
10. Leaving equipment and machinery in a suitable condition for future use
11. Storing equipment and machinery safely and securely in accordance with organisation procedures

9. The function of all controls and instruments on equipment and machinery being used
10. The types of hazards that may be encountered when operating equipment and machinery and how these should be dealt with
11. The sort of problems that may occur with equipment and machinery, how to identify them, and the action to take
12. The importance of carrying out routine checks on equipment and machinery and how to identify defects and faults
13. How to shut down equipment and machinery after use
14. Why it is important to maintain the safety and security of equipment and machinery at all times
15. Post-use activities that need to be carried out to maintain equipment and machinery
16. How equipment and machinery should be stored and the importance of security
17. The potential impact of your work on the surrounding area and the environment and how it can be minimised
18. Organisation procedures for recording and reporting equipment and machinery operation

Goal of work situation:

To maintain equipment and machinery in a good state of cleanliness and repair and confirm safety and security in line with site operating procedures and manufacturer's instructions

Brief outline:

This is about maintaining equipment and machinery. It involves routine maintenance and repair of equipment and machinery following site operating procedures and relevant manufacturer's specifications. Maintenance is completed to optimise the performance and maximise the working life of equipment and machinery.

Note: Individuals may be carrying out maintenance or repair or both.

Performance requirements

1. Completing all training and certification required to maintain and repair equipment and machinery in accordance with legislative, manufacturers' and organisational requirements
2. Identifying equipment and machinery requiring maintenance and repair
3. Inspecting equipment and machinery to determine the requirements for maintenance and repair
4. Locating relevant maintenance instructions and manufacturer's specifications for the equipment and machinery being maintained
5. Preparing equipment and machinery for maintenance and repair safely and in line with relevant maintenance instructions and manufacturer's specifications
6. Identifying and marking up components that need to be disassembled and reassembled
7. Obtaining replacement components and parts required to complete maintenance and repair
8. Carrying out routine maintenance and repair of equipment and machinery in line with relevant maintenance instructions and manufacturer's specifications

Knowledge and understanding requirements

1. Relevant health and safety procedures, how to identify hazards and assess risks, safe systems of work and the personal protective equipment (PPE) required for carrying out maintenance and repair
2. The relevant legislation covering the preparation and use of work equipment in your place of work and any licences or certificates required
3. Legislative, manufacturers' and organisational requirements for the maintenance and repair of equipment and machinery and when additional training or certification is required to carry out maintenance and the replacement of parts
4. The potential health and safety risks resulting from lack of, and poor-quality maintenance of equipment and machinery
5. Inspection methods for equipment and machinery to determine the maintenance and repair requirements and how often these should be carried out
6. Methods for the assessment of defects and faults and the identification of the root cause
7. Identifying when equipment and machinery needs to be serviced, and repaired by an authorised agent

9. Taking correct precautions to prevent the escape of substances and minimise dangers from contamination and hazardous chemicals
10. Keeping the work area safe and in a condition suitable for the maintenance and repair
11. Setting and calibrating equipment and machinery after maintenance and repair in line with relevant maintenance instructions and manufacturer's specifications
12. Testing equipment and machinery after maintenance and repair in line with relevant maintenance instructions and manufacturer's specifications
13. Confirming with relevant personnel that machinery and equipment is in good working order on completion of maintenance and repair
14. Disposing of waste safely and correctly, in accordance with site procedures
15. Recording and reporting equipment and machinery maintenance and repair in line with site requirements

8. Instructions and specifications required for maintenance and repair of equipment and machinery and actions which might invalidate a manufacturer's warranty
9. Components and parts that require periodic replacement and the reasons for this
10. How to obtain replacement components and parts
11. Methods of preparing equipment and machinery for maintenance and repair
12. The dangers created by stored energy and the presence of hazardous chemicals and substances and how these should be dealt with
13. How to mark-up components for disassembly and reassembly and the reasons for doing this
14. The function and maintenance requirements of individual components
15. The procedures to follow where damage, and wear to components exceeds the manufacturer's recommended limits
16. Methods for setting or calibrating equipment and machinery following maintenance and repair
17. The importance of testing the equipment and machinery on completion of maintenance and repair to confirm that it is safe and in good working order
18. Site procedures for the disposal of different types of waste
19. The impact that maintenance and repair of machinery has on the environment and how to minimise this
20. Site requirements for recording and reporting the maintenance and repair of equipment and machinery

Knowledge and understanding

URN: SDS 0081

Understanding the importance of environmental good practice and sustainability

Goal:

To understand good environmental practices, the importance of sustainability and how to apply them within your area of responsibility

Brief outline:

This is about individuals understanding the negative impact of their work on the environment and the steps that can be taken to reduce this impact and promote sustainability. This could be local or global impact.

Performance requirements

There are no performance requirements for this work situation. This work situation provides knowledge and understanding requirements only.

Knowledge and understanding requirements

1. Why it is important to consider and apply sustainability in everything you do
2. The importance of assessing the negative environmental impact that your work could have and what needs to be considered
3. Environmental legislation and industry codes of practice that apply to your area of work
4. Different ways of working that could be adopted to reduce negative environmental impact and promote sustainability in your area of work
5. How to make responsible and sustainable use of natural resources in ways which minimise negative impacts on nature and natural habitats and promotes biodiversity
6. How to make responsible use of water, energy and other resources
7. The importance of energy efficiency and the ways in which energy usage can be monitored, reduced and replaced with renewable sources
8. The importance of making informed decisions on purchases, considering the carbon footprint and adopting the principles of the circular economy
9. The ways in which waste can be reduced and the principles of the waste management hierarchy
10. How pollution can be avoided in your area of work

11. How your work impacts on climate and environmental change and the actions that could be taken to respond to and mitigate the effects of this
12. How carbon emissions can be calculated and reduced or mitigated
13. The use of targets for reducing carbon emissions and improving environmental performance
14. The importance of constantly reviewing environmental performance and taking action to make improvements
15. The purpose of environmental management systems and other environmental quality marks
16. Where to find information and advice on grants, subsidies or other forms of funding or assistance to implement low carbon solutions

Goal of work situation:

To understand and create and maintain positive and effective working relationships with stakeholders to enable their expectations to be met in line with organisational requirements.

Brief outline:

This is about identifying internal and external stakeholders and building relationships. It involves maintaining positive relationships by communicating information in an effective and professional manner in line with organisational requirements.

Performance requirements

1. Identifying all relevant stakeholders related to areas of work
2. Building relationships with stakeholders to support work plans and meet their expectations
3. Keeping stakeholders informed about work plans and activities which affect them
4. Communicating information in suitable formats to meet the needs of different stakeholders
5. Agreeing, recording actions from meetings with stakeholders in line with organisational requirements
6. Monitoring and reviewing relationships with stakeholders to improve future working relationships

Knowledge and understanding requirements

1. Leadership models, styles, qualities, and self-awareness
2. How team dynamics impact on organisational behaviours, including cultural and geographic values
3. Organisational policies and procedures on inclusion and the importance of complying with these
4. Who needs to be kept informed and the importance of doing this
5. The ways communication may need to be adapted for internal and external stakeholders
6. How and when to say no
7. How to manage differences, or problems with stakeholders and the organisational processes for resolving differences and escalating problems with working relationships
8. The appropriate professional codes of conduct when working with stakeholders and why these are important
9. Requirements for communication with respect to confidentiality and intellectual property

Goal of work situation:

To develop meta-skills and personal professionalism through reflective practice, goal setting and active learning to improve own performance in line with organisational requirements.

Brief outline:

This is about taking responsibility for the development of own meta-skills and personal professionalism. This involves reflecting on and learning from practice; seeking and acting on feedback; agreeing and working towards own goals for continuous professional development (CPD); and managing own wellbeing.

Performance requirements

1. Self-evaluating meta-skills regularly to identify own strengths and improvement needs for development
2. Identifying own strengths and improvement needs for professional development
3. Setting and agreeing SMART objectives for personal development and to achieve business objectives
4. Planning development activities to improve own performance and to achieve business objectives
5. Completing formal and informal activities to support and progress own development
6. Seeking and acting on feedback to improve own performance
7. Critically reflecting on own performance and involvement in activities to support own development and achievement
8. Critically evaluating the development and application of meta-skills in own work to identify future development needs
9. Completing and maintaining records and documents in line with organisational policy and procedures

Knowledge and understanding requirements

1. The purpose and importance of meta-skills including their definitions and how they relate to own work
2. The importance and impact of personal professionalism within the organisation and own role
3. How to use critical reflection and reflective practice to identify gaps in role specific knowledge, skills and meta-skills and the purpose and importance of this
4. How to participate effectively in performance reviews
5. How to set and agree SMART goals – Specific, Measurable, Achievable, Realistic, Time-bound
6. How to prepare development plans, including their content and duration
7. The importance of career and personal goals, including collective organisational learning, when planning own development
8. Sources of up-to-date and appropriate information to support own CPD activities
9. The impact and benefits of CPD including the organisation's key performance indicators (KPIs) and how they are measured and recorded
10. The importance of managing well-being for success in own role and where to get support
11. Appropriate ways to seek and act on feedback to develop own skills and knowledge including the process of 360-degree feedback

12. Different learning models and styles and how to use these for own development



Optional work situations

A minimum of three optional work situations must be achieved

Transferring live aquaculture stock	22-23
Stocking aquaculture stock	24-25
Packing live shellfish.....	26-27
Collecting and storing shellfish spat	28-29
Feeding aquaculture stock.....	30-31
Grading aquaculture stock.....	32-33
Harvesting aquaculture stock.....	34-35
Receiving goods and supplies.....	36-37
Operating workboats and support craft.....	38-39
Carrying out shellfish purification.....	40-41

Goal of work situation:

To transfer live aquaculture stock to meet production requirements in line with site operating procedures

Brief outline:

This is about transferring live aquaculture stock. This involves assessing health and welfare, safe movement from one holding unit to another, monitoring environmental conditions and water quality during transfer and observing and reporting on the condition of the stock being transferred.

When transferring live aquaculture stock by road, train, water or air, all site health plans and the requirements of Food Standards Scotland, RSPCA or other accreditation schemes must be adhered to, in order to maintain the health and welfare of the live aquaculture stock and the hygiene and bio-security standards required to produce aquaculture stock for human consumption.

Note: Individuals are likely to be working in either fish or shellfish operations.

Performance requirements

1. Checking that transfer processes are co-ordinated with the receiving site and required documentation is in place
2. Maintaining communication with all those involved in the transfer throughout the process using relevant communication methods
3. Preparing transport holding units for the transfer of live aquaculture stock in accordance with health and welfare requirements and site operating procedures
4. Assessing the condition of live aquaculture stock prior to transfer in accordance with health and welfare requirements and site operating procedures
5. Conditioning the aquaculture stock where required in line with site operating procedures
6. Checking the required environmental conditions are in place in transport holding units to minimise stress during transfer

Knowledge and understanding requirements

1. Relevant health and safety procedures, how to identify hazards and assess risks, safe systems of work and the personal protective equipment (PPE) required for transferring and transporting live aquaculture stock
2. The requirements of relevant animal health and welfare standards, industry codes of practice, site health plans and quality assurance requirements for transferring and transporting live aquaculture stock
3. Site operating procedures for the transfer and transport of live aquaculture stock
4. Why it is important that all aspects of the transfer process are co-ordinated
5. The importance of maintaining communication with all those involved in the transfer process and how this can be done
6. Methods used to transfer and transport live aquaculture stock

7. Monitoring the loading and unloading of live aquaculture stock using relevant techniques and equipment
8. Maintaining hygiene and biosecurity during transfer processes in accordance with health and welfare requirements and site operating procedures
9. Monitoring the health and welfare of live aquaculture stock during transfer in accordance with health and welfare requirements and site operating procedures
10. Monitoring water quality whilst transferring live aquaculture stock to confirm water meets the requirements of the stock being transferred
11. Maintaining containment during transfer to prevent stock loss or escape in line with site operating procedures
12. Taking required actions to deal with difficulties encountered during transfer
13. Assessing the condition of live aquaculture stock prior to unloading in line with site operating procedures
14. Preparing live aquaculture stock prior to unloading in line with site operating procedures
15. Cleaning and disinfecting transport holding units and equipment in accordance with site operating procedures
16. Recording and reporting information on the transfer of live aquaculture stock in line with site requirements

7. How to check and prepare transport holding units and other equipment needed to transfer live aquaculture stock
8. How the size of the aquaculture stock will affect the density in transport holding units
9. The importance of assessing the health and welfare of stock and the behaviour that indicates stress or disorder
10. Why only healthy aquaculture stock should be transferred and when they need to be conditioned
11. Why it is important to move live aquaculture stock with minimum time delay
12. The water quality and environmental conditions required for the live aquaculture stock being transferred and how these are measured and maintained
13. Site procedures and industry guidelines for maintaining hygiene and biosecurity during and after the transfer process
14. The precautions that are followed to reduce the danger of transferring non-target species with live aquaculture stock
15. The importance of minimising the risk of stock loss or escape during transfer and transport
16. The importance of taking immediate action in the event of difficulties being encountered during transfer
17. Site requirements controlling water usage and discharge from equipment used to move live aquaculture stock
18. Site requirements for recording and reporting information on the transfer of live aquaculture stock

Stocking aquaculture stock

Goal of work situation:

To stock farmed aquaculture stock into relevant holding units to meet production requirements and in line with site operating procedures.

Brief outline:

This is about receiving aquaculture stock and transferring it into holding units in a controlled production environment. It includes safe transfer, handling and stocking at the required density and monitoring the health and welfare of the new stock. Holding units could include cages, pens, ponds, tanks, longlines, raceways, lantern nets, socks/tubing, bags. Biosecurity will be maintained throughout the process, following site operating procedures.

Note: Individuals are likely to be working in either fish or shellfish operations.

Performance requirements

1. Preparing handling and transfer equipment and holding units to receive aquaculture stock
2. Checking security and integrity of holding units ready for receiving stock in line with site operating procedures
3. Checking that environmental conditions within holding units meet the requirements of the stock being received
4. Checking hygiene and biosecurity measures are in place to prevent contamination of stock
5. Checking holding unit systems are in place and functioning in line with manufacturers' instructions and site operating procedures
6. Taking average weight samples to aid the achievement of the required stocking density
7. Maintaining communication with all those involved in the stocking throughout the process using relevant communication methods
8. Transferring stock safely into holding units to minimise stock loss and escapes
9. Monitoring the health and welfare of stock during stocking to detect and minimise signs of stress and disorder
10. Monitoring new stock to mitigate and deal with any stocking concerns

Knowledge and understanding requirements

1. Relevant health and safety procedures, how to identify hazards and assess risks, safe systems of work and the personal protective equipment (PPE) required for stocking aquaculture stock
2. The requirements of relevant animal health and welfare standards, industry codes of practice, site health plans and quality assurance requirements for the health and welfare of aquaculture stock
3. The resources required to complete stocking in line with production requirements
4. The different types of holding units, transfer equipment and methods used to transfer aquaculture stock and how the holding units and equipment should be prepared
5. The importance of knowing the carrying capacity of the holding units to ensure that the welfare requirements of the stock are met
6. The environmental conditions (water temperature, quality, and quantity) required by the species being farmed, how these are checked and how adverse environmental conditions can affect the stocking operation
7. The importance of checking the security and integrity of holding units to maintain containment and how this can be done

11. Recording and reporting stocking information in line with site requirements

8. Common pests and predators, the impact of their presence on aquaculture stock and relevant legal pest and predator preventative measures and devices
9. Site procedures for maintaining hygiene and biosecurity
10. The different types of feeding, monitoring and other systems used in holding units and how they are set up
11. How legal requirements control the movement and receipt of aquaculture stock between sites
12. The importance of maintaining communication with all those involved in transferring and stocking the aquaculture stock and how this can be done
13. The importance of stocking densities in maintaining health and welfare standards and why sample weights are taken during the stocking process
14. How the production plans control the stocking process
15. The importance of monitoring the health and welfare of stock during and after stocking and signs that indicate stress and disorder
16. The importance of maintaining containment during stocking and the consequences of stock loss and escapes
17. Why it is important to monitor and record mortality rates in aquaculture stock
18. Disruptions that can occur to stocking operations and how these should be dealt with
19. Site requirements for recording and reporting information on the stocking process

Goal of work situation:

To pack live shellfish for human consumption to meet production requirements and in line with site operating procedures

Brief outline:

This is about packing live shellfish for human consumption. It involves assessing quality, packing, controlling temperature, labelling and maintaining records.

Performance requirements

1. Checking the requirements for the packing of live shellfish in line with production requirements
2. Preparing and maintaining the work area in a hygienic condition suitable for packing live shellfish for human consumption in accordance with food safety standards
3. Checking that the condition of live shellfish meets quality assurance and production requirements prior to packing
4. Selecting suitable packaging to meet quality assurance and production requirements
5. Handling and packing live shellfish to maintain their welfare in accordance with animal health and welfare standards and industry codes of practice for the welfare of shellfish
6. Maintaining hygiene and biosecurity in line with site operating procedures
7. Controlling temperature during the packing process to maintain quality and meet food safety standards
8. Preparing packed shellfish for distribution in accordance with production requirements
9. Storing packed shellfish in appropriate conditions to maintain quality
10. Labelling packed products to meet food safety and industry quality assurance requirements
11. Following site procedures for dealing with different types of waste produced when packing live shellfish

Knowledge and understanding requirements

1. Relevant health and safety procedures, how to identify hazards and assess risks, safe systems of work and personal protective equipment (PPE) required for packing live shellfish
2. The requirements of animal health and welfare standards and industry codes of practice for the welfare of shellfish
3. The importance of meeting relevant food safety and industry quality assurance standards
4. The handling requirements for live shellfish to maintain their welfare and quality
5. The importance of maintaining hygiene and biosecurity during the packing of live shellfish
6. How live shellfish can become stressed and why it is important to minimise stress
7. How to assess quality and condition of live shellfish and how to deal with shellfish that do not meet requirements
8. The packaging requirements for live shellfish and how to select packaging to meet quality assurance and production requirements
9. How to pack live shellfish and why speed and temperature control is important during the packing process
10. Environmental conditions required by live shellfish and the methods used to control the temperature of shellfish during distribution
11. Storage conditions required to maintain the quality of live shellfish
12. How shellfish can become contaminated and how this can be prevented

12. Recording and reporting information on packing live shellfish in line with site requirements

13. The importance of product control, traceability and labelling

14. Site requirements for dealing with waste from packing live shellfish.

15. Site requirements for recording and reporting information on packing live shellfish

Goal of work situation:

To collect, sort and store shellfish seed and young shellfish ('spat') from the natural environment to meet production requirements in line with site operating procedures.

Brief outline:

This is about the collection, sorting and storage of shellfish seed or young shellfish ('spat'). It involves careful handling and sorting to remove non-target species and maximise spat survival for production.

Performance requirements

1. Preparing spat collection equipment and maintaining their condition during spat collection activities to maximise collection
2. Locating the designated collection site and deploying spat collectors to meet production targets
3. Identifying the spat of target and non-target species to be removed
4. Identifying predator and fouling species to be removed
5. Collecting and sorting spat and removing predator, fouling and non-target shellfish species to preserve the integrity of spat collected
6. Minimising stress and damage to spat during handling to maximise survival rates
7. Maintaining spat health and welfare during collection, transport and storage to maintain quality
8. Recording and reporting information on the collection and storage of spat in line with site requirements

Knowledge and understanding requirements

1. Relevant health and safety procedures, how to identify hazards and assess risks, safe systems of work and the personal protective equipment (PPE) required when collecting shellfish spat
2. The life cycle stages of the species of shellfish being farmed
3. The times of year when shellfish, fouling and predator species spawn
4. How environmental conditions influence shellfish reproduction and spat fall
5. The locations where spat fall is likely to occur and the relevant legal restrictions and environmental conditions that constrain the selection of collection sites
6. The function and structure of spat collection equipment and why it is important to maintain their condition during spat collection
7. The basic knots and rope work of spat collection equipment
8. How and when to conduct spat collection activities in order to control and maximise spat collection
9. The different methods that can be used to control the collection of spat
10. Spat collection techniques relevant to the shellfish species being farmed
11. Factors that can impact on the collection of spat
12. How to identify the spat of target and non-target shellfish species
13. How to identify predator and fouling species

14. The importance of removing predator, fouling and non-target shellfish species from collected spat
15. How to determine the viability of collected spat
16. The fragility of the spat and the handling requirements that minimise stress and damage
17. The welfare requirements of shellfish spat during collection, transport and storage
18. How to store and transport shellfish spat to maximise survival
19. Site procedures for maintaining hygiene and biosecurity
20. Site requirements for recording and reporting information on the collection and storage of shellfish spat

Goal of work situation:

To provide the required amount of feed to aquaculture stock to meet production targets in line with specified feeding regimes and site operating procedures

Brief outline:

This is about feeding aquaculture stock correctly and safely in a production environment. This involves feeding stock, calibrating and maintaining feeding equipment, monitoring the feeding behaviour of the stock and maintaining records.

Feeding regimes may be both routine and specialist in support of specific requirements such as fasting, in-feed treatments, providing pigment, smolt diets, immuno stimulants.

Performance requirements

1. Confirming feed requirements are in line with the development stage of aquaculture stock being farmed
2. Using relevant feeding methods to provide required feed to aquaculture stock, including specialist feeding regimes
3. Setting, calibrating and maintaining feeding equipment in line with manufacturer instructions and site operating procedures
4. Monitoring feeding behaviours of stock, including intake and wastage, in line with specified feeding regimes and site operating procedures
5. Maintaining site cleaner fish feeding routines where they are used, in line with site operating procedures
6. Maintaining the supply of feed and storing stocks of feed in line with site operating procedures
7. Checking the quality of feed and reporting any that is substandard
8. Maintaining hygiene and bio-security measures to minimise the risk of contamination
9. Communicating with all those involved in providing feed to aquaculture stock using relevant communication methods

Knowledge and understanding requirements

1. Relevant health and safety procedures, how to identify hazards and assess risks, safe systems of work and the personal protective equipment (PPE) required when providing feed to aquaculture stock
2. The requirements of relevant animal health and welfare standards, industry codes of practice, site health plans and quality assurance requirements for feeding aquaculture stock
3. The types and amounts of feed suitable for feeding the aquaculture stock being farmed to maintain their health, welfare and development
4. Specialist feeding regimes and their application in the maintenance of stock health and development
5. How feed conversion rates are calculated, the factors that affect it and its importance to the production process
6. The importance of minimising wastage and reducing the environmental impact from feeding
7. The types of feeders or feeding systems used on site and how they are set, calibrated and maintained where required

10. Recording and reporting of information of the feeding of aquaculture stock in line with site requirements

8. Why feeding is modified in response to variations in environmental conditions
9. Why it is important to monitor stock feeding behaviour and the methods used to monitor feed intake and wastage including monitoring devices and visual observations
10. The signs and results of underfeeding and overfeeding on stock and the impact on production targets
11. The storage requirements of aquaculture feed including stock control and rotation and the importance of effective pest control
12. How to recognise substandard feed and the action to take
13. Feeding regimes for cleaner fish, where they are used
14. Site procedures for maintaining hygiene and biosecurity
15. The importance of maintaining communication with all those involved in providing feed to aquaculture stock and how this can be done
16. Site requirements for recording and reporting information on the feeding of aquaculture stock

Goal of work situation:

To grade live aquaculture stock for production in line with site operating procedures.

Brief outline:

This is about grading aquaculture stock as part of good husbandry programmes. This involves using relevant grading equipment safely and effectively to grade fish or shellfish according to set criteria. Grading can be for harvesting juvenile stock, to reduce stocking density by separating faster and slower growing stock and harvesting for market. It will also include moving the stock before and after grading, maintaining their health and welfare, maintaining effective hygiene and biosecurity and accurate record keeping and reporting.

Note: Individuals are likely to be working in either fish or shellfish operations

Performance requirements

1. Preparing the required equipment to grade aquaculture stock in line with site operating procedures
2. Sorting and grouping stock for grading in line with grading requirements
3. Inspecting stock to confirm they are in good health and condition prior to grading
4. Grading live aquaculture stock using relevant techniques and grading equipment safely in line with site and production requirements
5. Monitoring the health and welfare of live aquaculture stock during grading to detect and minimise signs of stress or disorder
6. Maintaining containment during grading to prevent escapes in line with site operating procedures
7. Maintaining hygiene and biosecurity during grading in line with site operating procedures
8. Modifying the grading process to respond to factors that can cause disruption

Knowledge and understanding requirements

1. Relevant health and safety procedures, how to identify hazards and assess risks, safe systems of work and the personal protective equipment (PPE) required for grading aquaculture stock
2. The requirements of relevant animal health and welfare standards and codes of practice, site health plans and quality assurance requirements for the health and welfare of aquaculture stock
3. Industry codes of practice and site operating procedures for grading aquaculture stock
4. Why aquaculture stock is graded as part of husbandry programmes and the importance of accurate grading to the management of healthy stock
5. Regulations covering the grading of aquaculture stock and stocking densities
6. The relevant industry techniques used to grade stock
7. Different criteria that can be used to grade aquaculture stock, including specification, size, quality and condition

9. Moving stock between holding units before and after grading in line with production requirements
10. Recording and reporting information on grading stock in line with site requirements

8. The equipment used to grade aquaculture stock and how to prepare and operate it safely and correctly in line with site operating procedures
9. The importance of undertaking relevant training to operate equipment and machinery
10. How grading equipment can damage stock if it is not in a serviceable condition
11. The potential impact of adverse environmental conditions on the grading operation
12. The importance of monitoring the health and welfare of stock during grading and signs that indicate stress or disorder
13. The importance of maintaining containment during grading and the consequences of escapes
14. Site procedures for maintaining effective hygiene and biosecurity during the grading process
15. The importance of maintaining communication with all those involved in the grading process and how this can be done
16. How to deal with factors that can disrupt the grading process and when to modify or stop the process
17. The procedure for moving graded aquaculture stock to new holding units
18. Site requirements for recording and reporting information on the grading process

Goal of work situation:

To harvest aquaculture stock to meet production requirements, maintaining quality in line with site operating procedures

Brief outline:

This is about harvesting aquaculture stock for human consumption. This involves the preparation of facilities and equipment, humane harvesting, storage of harvested aquaculture stock and maintaining records.

Note: Individuals are likely to be working in either fish or shellfish operations.

Performance requirements

1. Confirming requirements needed to harvest aquaculture stock
2. Checking the size, condition and quality of aquaculture stock against harvesting requirements
3. Carrying out conditioning of aquaculture stock, where this is a requirement, in preparation for harvesting
4. Cleaning stock where they are being harvested for human consumption in line with food safety standards
5. Preparing site and equipment ready for harvesting in line with site operating procedures
6. Harvesting aquaculture stock in a humane manner in line with animal health and welfare standards and site operating procedures
7. Storing harvested aquaculture stock to maintain flesh quality in accordance with site requirements
8. Dealing with waste from the harvesting process in line with site requirements
9. Recording and reporting information on harvesting in line with site requirements

Knowledge and understanding requirements

1. Relevant health and safety procedures, how to identify hazards and assess risks, safe systems of work and the personal protective equipment (PPE) required for harvesting aquaculture stock
2. The requirements of relevant animal health and welfare standards, codes of practice, site health plans and quality assurance requirements for harvesting aquaculture stock
3. How food safety standards control the production of aquaculture stock for human consumption and how food hygiene is maintained
4. Site operating procedures for harvesting aquaculture stock
5. The need to check the size, condition and quality of aquaculture stock prior to commencing harvesting and how this is done
6. How to prepare the site for harvesting
7. When conditioning is required in preparation for harvesting and how this is carried out
8. The equipment and methods used to harvest fish and shellfish, and the requirements for humane dispatch of fish
9. Why it is important to minimise stress in aquaculture stock during harvesting
10. How harvested aquaculture stock are stored to maintain flesh quality, including the use of ice, to suit prevailing environmental conditions

11. The importance of maintaining communication with all those involved in the harvesting process
12. Site requirements for dealing with waste from aquaculture stock harvesting
13. How to deal with factors that can disrupt the harvesting process
14. Site requirements for recording and reporting information on harvesting aquaculture stock

Work Situation

Receiving goods and supplies

URN: SDS 0124

Goal of work situation:

To receive goods and supplies in line with organisation procedures, maintaining the safety and security of the goods.

Brief outline:

This is about receiving delivery of goods and supplies. It involves checking the goods meet the original order, as well as handling, storing and recording goods delivered.

Receiving delivery of goods may require working with equipment and machinery.

Performance requirements

1. Completing all training and certification required to operate equipment and machinery used to receive deliveries in accordance with legislative and organisation requirements
2. Checking accompanying delivery documentation to confirm description and quantity of incoming goods matches delivery note and original order
3. Checking that quality of incoming goods meets organisation requirements
4. Dealing with any discrepancies, damaged and poor-quality goods in line with organisation procedures
5. Booking deliveries into stock in line with organisation procedures
6. Handling and transporting goods using relevant methods to minimise damage and ensure safety and security
7. Storing goods safely and securely in accordance with relevant legislation, manufacturers' recommendations, and organisation procedures
8. Monitoring stored goods in line with organisation procedures
9. Shutting down equipment and machinery after use to maintain safety

Knowledge and understanding requirements

1. Relevant health and safety procedures, how to identify hazards and assess risks, safe systems of work and the personal protective equipment (PPE) required for receiving deliveries
2. Tools and equipment used to receive deliveries and how to prepare, maintain and use these safely and effectively in line with legal requirements, manufacturers' instructions and organisation requirements
3. The importance of undertaking relevant training and checking that any licences to operate equipment and machinery are in place
4. Why deliveries should be checked against delivery notes and original order and any discrepancies followed up
5. The importance of checking the condition of goods and the action to take if there are any damaged and poor-quality items
6. Documentation that should accompany deliveries such as certificates of conformity
7. Organisation procedures for receiving deliveries into stock
8. How to handle and transport different types of goods safely and maintain them in good condition
9. The precautions to take and PPE required when handling hazardous materials

10. Maintaining the security of equipment and machinery at all times in accordance with organisation procedures
11. Leaving equipment and machinery in a suitable condition for future use
12. Recording and reporting information on the delivery of goods in line with relevant legislative and organisation requirements

10. Storage requirements for different types of goods and the purpose of manufacturers' recommendations regarding storage
11. When deliveries should be placed in quarantine and the procedures for this
12. The importance of using stock rotation procedures related to shelf life
13. Ways in which security and safety of storage facilities are maintained
14. The importance of monitoring the condition of goods in storage, especially if they are perishable
15. The action to take when stocks reach the required level for re-ordering
16. Why it is important to maintain the safety and security of equipment and machinery when on site
17. Legal and organisation requirements for recording and reporting delivery information

Goal of work situation:

To operate workboats and support craft in line with legal requirements and site operating procedures while maintaining the safety of yourself, others and the vessel.

Brief outline:

This is about preparing and operating workboats and support craft. It relates to any organisation which operates workboats and support craft and will involve vessel preparation, checking on board equipment, safely manoeuvring, mooring and vessel maintenance.

Note: Individuals are likely to be working with either workboats or support craft. Where the term 'vessel' is used it relates to either workboats or support craft.

Performance requirements

1. Completing all training, certification and approvals required to operate vessels of the relevant class in accordance with legislative and organisation requirements
2. Preparing vessels for use and checking they are in a safe operating condition in accordance with operating conditions
3. Checking on board equipment including PPE, survival equipment, communication equipment and equipment needed to carry out the required activities, to confirm they are in good working order
4. Communicating with crew members and others involved in carrying out the required activities to ensure safe operation
5. Operating vessels safely, taking account of environmental conditions and staying within vessel limits
6. Using vessels to safely carry out required activities in line with organisation procedures
7. Mooring and securing vessels in required locations, using suitable equipment
8. Carrying out routine maintenance of vessels in accordance with organisation procedures and manufacturers' instructions
9. Recording and reporting vessel operations in line with relevant legislation and organisation requirements

Knowledge and understanding requirements

1. Relevant health and safety legislation and codes of practice, how to identify hazards and assess risks, safe systems of work and the personal protective equipment (PPE) required for operating vessels
2. Types of workboats and support craft used to carry out your work and what they are used for
3. Correct use of rope work and knots on vessels
4. The importance of having the relevant permissions, consents and licences to operate vessels, and carry out the required activities
5. Legal requirements and manufacturers' specifications for the preparation and use of vessels, including pre-use checks and maintenance procedures
6. Requirements for checking and maintaining on-board equipment, including safety equipment
7. Responsibility for the command of vessels, and procedures for communicating with crew members and others
8. How to plot positions and use Global Positioning System (GPS), when required
9. How to obtain and interpret weather forecasts for areas of operation, where required
10. Navigational hazards located in area of operation

11. Types of faults and problems that may occur with the operational condition of vessels, including engine faults, damage and missing equipment
12. Types of emergencies that can occur including a person in the water during vessel operations and actions to take
13. Safe and correct methods for operating and manoeuvring vessels, including mooring
14. Operational capabilities and limitations of the vessels used
15. When to use warning signals during operation of vessels
16. How to maintain the stability of vessels when carrying out required work activities
17. The importance of maintaining biosecurity when using vessels and methods for achieving this
18. The condition in which vessels should be left after use and the importance of maintaining vessel security
19. The routine maintenance requirements of vessels
20. Legal and site requirements for recording and reporting usage of vessels

Work Situation

Carrying out shellfish purification

URN: SDS 0130

Goal of work situation:

To carry out shellfish purification to ensure the safety of shellfish for human consumption in line with site operating procedures.

Brief outline:

This is about carrying out purification of shellfish for human consumption. It involves preparing shellfish and equipment, following purification requirements and storing purified shellfish. .

Performance requirements

1. Washing shellfish before purification in accordance with food safety requirements
2. Preparing seawater for purification to meet required standards
3. Checking, grading and removing dead and damaged shellfish before purification in accordance with production requirements
4. Loading shellfish into the purification system in accordance with specified density levels
5. Establishing water flow and sterilisation to optimise the purification process and minimise stress to shellfish
6. Checking environmental conditions are suitable for effective purification
7. Maintaining shellfish welfare during purification in line with welfare requirements
8. Reporting any signs of shellfish not functioning during purification in accordance with site requirements
9. Draining the purification system after the required length of time following site procedures
10. Unloading shellfish from the purification system whilst minimising stress in accordance with site requirements
11. Handling and storing purified shellfish following site procedures to minimise stress and avoid recontamination
12. Disposing of mortalities and waste in accordance with site requirements
13. Cleaning purification facilities to hygienic conditions ready for the next batch of shellfish

Knowledge and understanding requirements

1. Relevant health and safety procedures, how to identify hazards and assess risks, safe systems of work and the personal protective equipment (PPE) required for conducting shellfish depuration
2. Relevant food safety requirements, including personal hygiene
3. Hazard Analysis and Critical Control Points (HACCP) and its application as a system for managing food safety and the controls associated with despatch centres for shellfish
4. Common human health problems that can be caused by shellfish that have not been purified
5. The legal requirements of shellfish purification
6. The principles of purification as a process for purifying shellfish and standards required of end products
7. How purification equipment needs to be prepared and maintained
8. How to obtain and prepare seawater to required standards for purification
9. Why shellfish are washed before purification
10. Why it is important to remove dead and damaged shellfish before purification begins
11. Why it is important to adhere to specified density levels when loading shellfish into the purification system
12. The environmental conditions required for effective purification
13. The classifications given to shellfish growing areas and how this impacts the purification requirements
14. The legal time requirement for purification of shellfish

14. Recording and reporting information on shellfish purification in line with site requirements

- 15. Shellfish welfare requirements and how these are maintained during purification
- 16. How shellfish become stressed and why it is important to minimise the stress caused by the purification process
- 17. How to monitor and maintain shellfish in purification
- 18. The storage and handling requirements of purified shellfish
- 19. The importance of avoiding re-contamination and how this can be done
- 20. Site procedures for controlling the disposal of mortalities and waste
- 21. Site procedures for dealing with any emergencies and system failures and how to apply these
- 22. The importance of maintaining communication with all those involved in purification shellfish purification
- 23. Site requirements for recording and reporting information on shellfish purification, including information required for traceability

The relationship between meta-skills and work situations

Meta-skills Alignment												
Work Situation	Adapting	Collaborating	Communicating	Creativity	Critical thinking	Curiosity	Feeling	Focusing	Initiative	Integrity	Leading	Sense making
Maintaining aquaculture facilities	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Maintaining aquaculture stock health and welfare	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Maintaining hygiene and biosecurity	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Maintaining health, safety and security	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Using equipment and machinery	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Maintaining equipment and machinery	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Understanding the importance of environmental good practice and sustainability	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Establishing and maintaining effective working relationships	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Developing meta-skills and personal professionalism	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓

Meta-skills Alignment												
Work Situation	Adapting	Collaborating	Communicating	Creativity	Critical thinking	Curiosity	Feeling	Focusing	Initiative	Integrity	Leading	Sense making
Transferring live aquaculture stock	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Stocking aquaculture stock	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Packing live shellfish	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Collecting and storing shellfish spat	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Feeding aquaculture stock	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Grading aquaculture stock	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Harvesting aquaculture stock	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Receiving goods and supplies	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Operating workboats and support craft	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Carrying out shellfish purification	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓

The table above indicates where there are opportunities to develop and evidence meta-skills in each work situation within the occupation profile. Please note, this information is for guidance, and indicates where meta-skills are explicit rather than an exhaustive list. There may be opportunities for individuals to develop and evidence other meta-skills when carrying out their role.

The relationship between National Occupational Standards and work situations

The table below indicates where there are links between National Occupational Standards and each work situation within the occupation profile.

Work Situation	National Occupational Standards alignment
Maintaining aquaculture facilities	LANAqu1 Prepare holding units to receive fish LANAqu11, Carry out routine maintenance and repairs on Aquaculture facilities
Maintaining aquaculture stock health and welfare	LANAqu7 Collect information on fish growth and development LANAqu12 Monitor the aquatic production environment for farmed fish/shellfish LANAqu13, Monitor fish/shellfish health and welfare LANAqu14 Prepare and treat health problems in fish LANAqu26 Control the implementation of fish treatment
Maintaining hygiene and biosecurity	LANCS61, Maintain site hygiene and bio-security
Maintaining health, safety and security	LANCS2, Monitor and maintain health, safety and security LANCS3, Promote, monitor and maintain health, safety and security LANAqu37, Work safely in an aquatic environment
Using equipment and machinery	LANCS35 Prepare and use equipment and machinery
Maintaining equipment and machinery	LANCS25 Carry out maintenance and repair of equipment and machinery
Understanding the importance of environmental good practice and sustainability	LANEM15 Develop an awareness of environmental good practice
Establishing and maintaining effective working relationships	LANCS4 Establish and maintain working relationships
Developing meta-skills and personal professionalism	CFABAA626 Plan how to manage and improve own performance in a business environment

Work Situation	National Occupational Standards alignment
Transferring live aquaculture stock	LANAqu1 Prepare holding units to receive fish LANAqu19 Prepare for the transport of live fish/shellfish LANAqu20, Transport live fish/shellfish LANSCS60 Lift, transfer and position loads
Stocking aquaculture stock	LANAqu1 Prepare holding units to receive fish LANAqu2, Stock fish/shellfish into holding units
Packing live shellfish	IMPFP133/4 Pack live shellfish for dispatch
Collecting and storing shellfish spat	LANAqu9 Deploy, monitor and maintain spat collectors LANAqu10 Collect, sort and store spat
Feeding aquaculture stock	LANAqu6, Feed fish
Grading aquaculture stock	LANAqu4, Grade live fish/shellfish
Harvesting aquaculture stock	LANAqu5, Harvest fish
Receiving goods and supplies	LANCS73 Maintain stocks of resources, equipment and consumables LANCS60 Lift, transfer and position loads
Operating workboats and support craft	LANCS56 Prepare and operate small craft MSAD01 Support fishin go operations MSAD04 Prepare fishing gear MSAD05 operate fishing gear MSAD06 Handle and stow the catch
Carrying out shellfish purification	LANAqu8 Conduct shellfish depuration operations