City & Guilds NPTC Level 2 Award in the Safe Application of Pesticides Using Boat Mounted Equipment (PA5) (601/5144/4)

Version 1.0 (February 2024)

Assessment Pack – Centre and Candidate Version

Version and date	Change detail	Section
1.0 February 2024	First version	All

Contents

Introduction

This assessment relates to the unit in the Qualification handbook. The assessment can be achieved at pass only. If any task is not yet met the candidate is unsuccessful.

This assessment is for the following units and learning outcomes:

141 Operating boat mounted sprayers fitted with hydraulic nozzles/rotary atomisers for applying pesticides to water covering the following learning outcomes:

1. Know the legislative and safety regulations relating to application equipment
2. Be able to assess the environmental factors relating to mixing and application
3. Be able to read and interpret product information
4. Be able to prepare and calibrate the applicator
5. Be able to operate the application equipment
6. Know how to carry out post-operational procedures

142 Operating boat mounted granular applicators for applying pesticides to water covering the following learning outcomes:

1. Know the legislative and safety regulations relating to application equipment
2. Be able to assess the environmental factors relating to mixing and application
3. Be able to read and interpret product information
4. Be able to prepare and calibrate the applicator
5. Be able to operate the application equipment
6. Know how to carry out post-operational procedures

143 Operating boat mounted applicators for applying pesticides to water covering the following learning outcomes:

1. Know the legislative and safety regulations relating to application equipment
2. Be able to assess the environmental factors relating to mixing and application
3. Be able to read and interpret product information
4. Be able to prepare and calibrate the applicator
5. Be able to operate the application equipment
6. Know how to carry out post-operational procedures

General guidance on the requirements for assessment can be found in the Assessor Guidance General guidance on the requirements for assessment can be found in the Assessor Guidance document available on the City & Guilds web site **www.nptc.org.uk**

The assessor must complete the Practical Table mark sheet for each candidate which should be kept by the assessor for a minimum period of twelve months.

Record of assessment (ROA)

A prepopulated record of assessment must be completed by the assessor following an assessment. The number of outcomes is listed above, these must be ticked into the relevant met or not met sections of the ROA.

ARAS Forms

An Assessment Result Advice Slip (ARAS form) must be completed by the assessor following an assessment. The ARAS is not a certificate but, based on the evidence of the candidate's

performance, is a recommendation to City & Guilds that the candidate is either met or not met the assessment criteria. All feedback is to be recorded by the assessor on the feedback section of the ARAS form.

Assessment Time
The expected assessment time for this qualification is 1.5 – 3 hours.

Summary of responsibilities in the assessment process		
Centre responsibilities	Candidate responsibilities	Assessor responsibilities
A suitable site is made available for the assessment to take place		Ensuring that the site provided is suitable for the assessment to take place
Machinery, equipment and materials are available to enable assessment of all the activities to take place	To be familiar with the machinery/equipment being used for the assessment	Ensuring that the machinery, equipment and materials provided satisfy the assessment requirements
	To bring appropriate Personal Protective Equipment (PPE) to the assessment	Ensuring that candidate's PPE complies with the requirements of the assessment
	To bring relevant training materials (including calibration sheet if applicable)	
	To bring a product label appropriate for the assessment	To ensure that the product label is appropriate for the assessment (or provide a suitable alternative)

This is not an open book assessment, however additional technical information may be sought from the relevant manufacturer's operator manuals or any other appropriate training or safety publication.

Practical observation descriptor table

141 Operating boat mounted sprayers fitted with hydraulic nozzles/rotary atomisers for applying pesticides to water:

Activity number and description from check list		**Assessment criteria**
1.1	Describe the legal requirements relating to applying pesticides using boat mounted sprayers	The term on or near water may include the following: • any areas, which include drainage channels, streams, rivers, ponds, lakes, reservoirs, canals and dry ditches and the banks or areas immediately adjacent Operating legal requirements: • all required guards are in place and equipment complies with legal requirements • comply with The Plant Protection Products (Sustainable Use) Regulations 2012

		• the operator must hold the appropriate certification for the equipment they are using Both required: • ensure the pesticide has aquatic approval • seek environmental agency approval
1.2	Describe how to apply pesticides safely using boat mounted sprayers following industry best practice	May include: • extra person present at all times • comply with relevant codes of practice • availability of life ring/rescue devices • personal flotation device • be aware of any safety implications imposed by COSHH/Risk Assessment and comply with the requirements Factors which may affect the speed of the boat: • wind speed • water flow • weed obstruction
2.1	Identify risks to the aquatic environment	May include: • wildlife • non-target plants • hedgerows • housing • public access • sensitive crops/areas • water courses • boreholes • livestock drinking points • recreational use • water extraction points • de-oxygenation of water • removal of fish cover • removal of bank side wildlife habitat • removal of bank side vegetation leading to bank erosion • other risks specific to the site
2.2	Explain how to minimise risks to the environment	May include: • work in an upstream direction (if applicable) • treat the permitted area only • check weather suitability before treatment • check downstream uses before treatment

		• inform neighbours/downstream users before application • use an appropriate pesticide (minimal environmental impact) • careful timing of treatment • check and maintain application rate • avoid spray drift • exclude livestock • erect warning signs Check and comment on wind speed: • use of anemometer or visible signs at suitable height • wind direction Reasons for minimising spray drift: • avoidance of contamination to people and the environment, including the aquatic environment Factors that affect spray drift: • nozzle type • nozzle size • pressure • boat forward speed • direction of spraying • boom/nozzle height • defective equipment
3.1 - 3.2	Read product information Interpret product information	May include the following: • product name • active substance(s) (ingredient(s) Important information: • field of use (aquatic) • target • maximum individual dose • maximum total dose • maximum number of treatments • Specific product precautions/warnings • operator protection • environmental protection • restrictions on use Crop specific information: • target • dose rate • water volume • timing Mixing and spraying: • filling • reduced volume applications (if applicable)

		• recommended nozzles • recommended pressure • spray quality • additional label information
4.1	Identify sprayer components and controls	May include: • tank • filters • pump • pressure gauge • pulsation damper • filling control and devices • agitation control • pressure or volume regulator/pressure relief valve • on/off control • boom isolators • tank wash system • valve positions • boom pressure compensation • other items specific to the applicator Nozzle types: • flat fan – general purpose • air inclusion – reduces drift
4.2	Carry out pre use checks to the boat	May include: • suitable for the situation • accessibility of boat controls • accessibility of sprayer controls • even loading • outboard motor • applicator power source • presence of personal flotation device • no equipment on operator's back when operating from the boat
4.3	Carry out pre-use and operational checks to the sprayer	Security of attachment: • fasteners tight • straps inspected and adjusted if necessary Possible mechanical defects: • seized, worn or damaged controls/components • atomiser drives/electrical connectors Applicator lubrication: • identification of lubrication points • visual inspection of lubrication points • visual inspection of levels

		Boom settings, suspension and break-back devices: • boom suspension operational • break-back efficiency • height adjustment Remove, clean and refit a filter: • remove and clean using appropriate method • contain spillage • check for defects, replace if damaged • refit Remove, clean/replace and refit a nozzle/restrictor: • remove and clean using appropriate method • contain spillage • check for defects replace if worn/damaged • refit Use of control panel may include: • functions of control panel • recognition of malfunctions before and during operation • check accuracy of base settings • switch to manual/test mode where applicable Part fill applicator: • suitable site selected • safe, secure mooring when transferring pesticides • fill by usual on-site method, following approved procedures • clean water supply Check for leaks and correct spray patterns: • use higher than normal operating pressure • visual check of all nozzles/atomisers for correct spray patterns, absence of blockages, streaking, pulsing • correct alignment • replace defective nozzles/atomisers/discs • lids and seals • pipe work and connections • control valves • filters • pressure gauge • diaphragm check valves

		Action in event of control panel failing: • stop pesticide application • manual operation of controls if possible
4.4	Calibrate the sprayer and record relevant data	Select and record boat forward speed: • direction of travel (upstream or downstream) • suitable boat forward speed for target • appropriate engine speed established • accurate measurement of distance • accurate measurement of time taken to cover distance • correct use of formula to establish forward speed Calculate required output: • correct use of formula Select appropriate nozzle/atomiser: • use of manufacturers operators handbook • use of nozzle/atomiser manufacturers literature • confirm requirements of product label Operating pressure/disc speed: • pressure as determined by nozzle chart • disc speed as determined by manufacturers literature • pressurise/purge appropriate to the system Nozzle/atomiser outputs: • use a measuring jug check to check output from at least one nozzle/atomiser per boom section (minimum of three per applicator) • compare with target output • vary pressure to make small adjustments • change nozzles/atomisers if required • Or any other acceptable method Calibration data: • boat identification • boat engine speed • sprayer engine speed • boat forward speed • application volume • nozzle/restrictor/disc fitted • pressure/disc speed • flow rate

4.5	Calculate the quantities of pesticide and water required for a specified area	To include: • amount of water required for specified area • amount of pesticide required for specified area • amount of pesticide required for full tank
5.1	Measure the required quantities and add to the applicator	To include: • safe, secure mooring when transferring pesticides and equipment • correct selection and use of PPE (as required by the product label and/or COSHH/Risk Assessment) • suitable site selected • fill by usual on-site method, following approved procedures • clean water supply • accurate measurement of water • accurate measurement of pesticide • correct filling procedure • use of filling device if fitted • avoidance of spillage • observance of pesticide manufacturers instructions for mixing and agitation
5.2	Demonstrate safe and accurate application procedures	Methods to achieve accurate application Marking out the site to include: • marker poles • blob markers • buoys • GPS Procedure to refill applicator part way through application: • mark the spot at which the applicator emptied • refill applicator • continue spraying by accurately matching at the appropriate point Procedure when a nozzle/restrictor becomes blocked during an application • mark the spot • select and use appropriate PPE • clean or replace nozzle/restrictor as appropriate Demonstrate safe and accurate application procedures to include: • ensure boom is level or aligned to the target • correct boom/nozzle height according to target operate controls to start and finish

		applying accurately at the beginning and end of each bout • correct forward speed and pressure for site conditions • accurate matching of bouts/use of marking aids • coping with obstacles • all of specified area treated, minimising overlaps and misses • awareness of changes in wind speed and direction
5.3	Carry out all activities protecting human health and the environment	To include: • prevention of personal injury and contamination through correct selection and use of PPE (as required by the product information, COSHH/Risk Assessment) • prevention of public/bystander contamination • safe filling procedure • avoidance of spray drift • avoidance of off target application/contamination • avoidance of over dosing/under dosing target/plant material • minimising the impact on the aquatic environment
5.4	Complete a treatment record	Completion of the treatment record must be: • accurate • legible (if handwritten)
6.1	Explain how to manage surplus pesticide and waste material	Surplus concentrate pesticide: • return to temporary mobile store • return to fixed store Containers: • triple rinsed • placed in secure storage until disposal • returned to supplier • collected by licensed waste contractor Packaging: • thoroughly emptied • placed in secure storage until disposal • collected by a licensed waste disposal contractor Surplus dilute pesticide: • back on to site as long as it is below the maximum dose rate • use on another approved target

		• treated by specialist treatment facility on site (e.g. a lined bio bed) • collected by a licensed waste disposal contractor
6.2	Explain how to clean and decontaminate the sprayer and the boat	May include: • select and use appropriate PPE • appropriate site • thorough washing with water and suitable cleaning agent (if recommended/required) • internal and external surfaces • use of in-built wash systems if provided • care to ensure contamination 'hot-spots' are clean • thorough flushing of systems • appropriate bio-security measures implemented • safe disposal of contaminated washings • when cleaning, ensure covers when under repair • safe procedures followed
6.3	Describe the storage requirements for the sprayer	May include: • ensure the applicator is clean and dry • inspect for wear and damage • replace any worn or damaged parts • controls left in appropriate positions • frost protection measures implemented • lubricate as required • store undercover and out of direct sunlight • store in a secure area

142 Operating boat mounted granular applicators for applying pesticides to water

1.1	Describe the legal requirements relating to applying pesticides using boat mounted granular applicators	The term on or near water may include the following: • any areas, which include drainage channels, streams, rivers, ponds, lakes, reservoirs, canals and dry ditches and the banks or areas immediately adjacent Operating legal requirements: • all required guards are in place and equipment complies with legal requirements

		• comply with The Plant Protection Products (Sustainable Use) Regulations 2012 • the operator must hold the appropriate certification for the equipment they are using Both required: • ensure the pesticide has aquatic approval • seek environmental agency approval
1.2	Describe how to apply pesticides safely using boat mounted granular applicators following industry best practice	May include: • extra person present at all times • comply with relevant codes of practice • availability of life ring/rescue devices • personal flotation device • be aware of any safety implications imposed by COSHH/Risk Assessment and comply with the requirements Factors which may affect the speed of the boat: • wind speed • water flow • weed obstruction
2.1	Identify risks to the aquatic environment	May include: • wildlife • non-target plants • hedgerows • housing • public access • sensitive crops/areas • water courses • boreholes • livestock drinking points • recreational use • water extraction points • de-oxygenation of water • removal of fish cover • removal of bank side wildlife habitat • removal of bank side vegetation leading to bank erosion • other risks specific to the site
2.2	Explain how to minimise risks to the environment	May include: • work in an upstream direction (if applicable) • treat the permitted area only • check weather suitability before treatment

		• check downstream uses before treatment • inform neighbours/downstream users before application • use an appropriate pesticide (minimal environmental impact) • careful timing of treatment • check and maintain application rate • avoid spray drift • exclude livestock • erect warning signs Check and comment on wind speed: • use of anemometer or visible signs at suitable height • wind direction Factors that affect uniformity of spread • applicator levelled according to manufacturer's recommendations • applicator at correct height • correct settings of spreading mechanism • consistency of disc speed • size/density of granules • wind • boat forward speed
3.1 - 3.2	Read product information Interpret product information	May include the following: • product name • active substance(s) (ingredient(s)) Important information: • field of use (aquatic) • target • maximum individual dose • maximum total dose • maximum number of treatments • specific product precautions/warnings • operator protection • environmental protection • restrictions on use Crop specific information: • target • dose rate • timing • filling recommendations • additional label information
4.1	Identify applicator components and controls	May include: • on/off control • metering mechanism

		• bias mechanism • hopper • lid • emptying outlet/mechanism • agitator • disc speed control • spread width limiter • other controls specific to the applicator
4.2	Carry out pre use checks to the boat	May include: • suitable for the situation • accessibility of boat controls • accessibility of applicator controls • even loading • outboard motor • applicator power source • presence of personal flotation device
4.3	Carry out pre-use and operational checks to the applicator	Security of attachment: • fasteners tight • straps inspected and adjusted if necessary Possible mechanical defects: • seized, worn or damaged controls/components • electrical connectors Applicator lubrication: • identification of lubrication points • visual inspection of lubrication points • visual inspection of levels • any problems identified to be rectified if within operators level of responsibility and ability Use of control panel may include: • functions of control panel • recognition of malfunctions before and during operation • check accuracy of base settings • switch to manual/test mode where applicable Part fill applicator: • suitable site selected • safe, secure mooring when transferring pesticides • fill by usual on-site method, following approved procedures Action in event of control panel failing: • stop pesticide application • manual operation of controls if possible

4.4	Calibrate the applicator and record relevant data	Select and record boat forward speed: • direction of travel (upstream or downstream) • suitable boat forward speed for target • appropriate engine speed established • accurate measurement of distance • accurate measurement of time taken to cover distance • correct use of formula to establish forward speed • use of manufacturers handbook/application charts Calculate required output: • correct use of formula Set applicator: • use of manufacturers handbook/application charts Check and adjust applicator: • follow recommendations given in manufacturers operator handbook • run applicator for specific period of time or distance • care to avoid moving parts • collect product distributed (if applicable) • accurate weighing of output • compare with target rates (check product label) • repeat until target rates achieved Recorded data: • applicator settings • granule used for calibration • application rate achieved • spreading width • engine speed • boat forward speed
4.5	Calculate the quantities of pesticide required for a specified area/volume	To include: • the correct amount required for the specified area or volume
5.1	Measure the required quantities and add to the applicator	To include: • safe, secure mooring when transferring pesticides and equipment • correct selection and use of PPE/RPE (as required by the product label and/or COSHH/Risk Assessment) • suitable site selected • fill by usual on-site method, following approved procedures • accurate measurement of pesticide

		• correct filling procedure • avoidance of spillage
5.2	Demonstrate safe and accurate application procedures	Methods to achieve accurate application Marking out the site to include: • marker poles • blob markers • buoys • GPS Procedure to refill applicator part way through application: • mark the spot at which the applicator emptied • refill applicator • continue applying by accurately matching at the appropriate point Demonstrate safe and accurate application procedures to include: • ensure applicator is level • applicator set at the correct height • operate controls to start and finish applying accurately at beginning and end of each bout • maintain correct boat forward speed • accurate matching of bouts • awareness of techniques to counteract unbalanced applicator performance • coping with obstacles • correct application rate • check uniformity of spread • all areas treated, minimising overlaps or misses • awareness of changes in wind speed and direction
5.3	Carry out all activities protecting human health and the environment	To include: • prevention of personal injury and contamination through correct selection and use of PPE/RPE (as required by the product information, COSHH/Risk Assessment) • prevention of public/bystander contamination • safe filling procedure • avoidance of off target application/contamination • avoidance of over dosing/under dosing target/plant material • minimising the impact on the aquatic environment

5.4	Complete a treatment record	Completion of the treatment record must be: • accurate • legible (if handwritten)
6.1	Explain how to manage surplus pesticide and waste material	Recovering surplus granular pesticide: • avoid personal contamination • select appropriate PPE/RPE • ensure that the applicator is made safe (engine stopped, power isolated) • select appropriate site • appropriate container used • correct product information attached Storing surplus granules • return to temporary mobile store • return to fixed storage facility Waste packaging • packaging thoroughly emptied • placed in secure storage until disposal • collection via a licensed waste disposal contractor
6.2	Explain how to clean and decontaminate the applicator and the boat	May include: • danger of personal contamination • select appropriate PPE • select an appropriate containment site • appropriate containers for contaminated material • follow manufacturers cleaning procedure • ensure that the applicator is made safe (engine stopped, power isolated) • suitable containment/disposal of granules or contaminated arisings from cleaning operation • appropriate bio-security measures implemented • when the applicator should be cleaned, ensure covers when under repair
6.3	Describe the storage requirements for the applicator	May include: • refer to manufacturers handbook • ensure applicator is clean and decontaminated • inspect for wear and damage • replace any worn or damaged parts • carry out lubrication procedures • store under cover and out of direct sunlight • store in a secure area

143 Operating boat mounted applicators for applying pesticides to water

1.1	Describe the legal requirements relating to applying pesticides using boat mounted applicators	The term on or near water may include the following: • any areas, which include drainage channels, streams, rivers, ponds, lakes, reservoirs, canals and dry ditches and the banks or areas immediately adjacent Operating legal requirements: • all required guards are in place and equipment complies with legal requirements • comply with The Plant Protection Products (Sustainable Use) Regulations 2012 • the operator must hold the appropriate certification for the equipment they are using Applying pesticide legal requirements: • ensure the piscicide has aquatic approval • seek environmental agency approval
1.2	Describe how to apply pesticides safely using boat mounted applicators following industry best practice	May include: • extra person present at all times • comply with relevant codes of practice • availability of life ring/rescue devices • personal flotation device • be aware of any safety implications imposed by COSHH/Risk Assessment and comply with the requirements Factors which may affect the speed of the boat: • wind speed • water flow • weed obstruction
2.1	Identify risks to the aquatic environment	May include: • wildlife • housing • public access • water courses • boreholes • livestock drinking points • recreational use • water extraction points • de-oxygenation of water • other risks specific to the site

2.2	Explain how to minimise risks to the environment	May include: • work in an upstream direction (if applicable) • treat the permitted area only • check weather suitability before treatment • check downstream uses before treatment • inform neighbours/downstream users before application • use an appropriate piscicide (minimal environmental impact) • careful timing of treatment • check and maintain application rate • exclude livestock • erect warning signs Check and comment on wind speed: • use of anemometer or visible signs at suitable height • wind direction
3.1 - 3.2	Read product information Interpret product information	May include the following: • product name • active substance(s) (ingredient(s)) Important information: • field of use (aquatic) • target • maximum individual dose • maximum total dose • maximum number of treatments • specific product precautions/warnings • operator protection • environmental protection • restrictions on use Crop specific information: • target • dose rate • water volume • timing Mixing and spraying: • filling • recommended pressure • additional label information
4.1	Identify applicator components and controls	May include: • tank • filters • pump • pressure gauge

		• filling control and devices • agitation control • pressure or volume regulator/pressure relief valve • on/off control • boom isolators • tank wash system • valve positions • boom pressure compensation • distribution outlet • other items specific to the applicator
4.2	Carry out pre use checks to the boat	May include: • suitable for the situation • accessibility of boat controls • accessibility of applicator controls • even loading • outboard motor • applicator power source • presence of personal flotation device • no equipment on operator's back when operating from the boat
4.3	Carry out pre-use and operational checks to the applicator	Security of attachment: • fasteners tight • straps inspected and adjusted if necessary Possible mechanical defects: • seized, worn or damaged controls/components • atomiser drives/electrical connectors Applicator lubrication: • identification of lubrication points • visual inspection of lubrication points • visual inspection of levels Boom settings, suspension and break-back devices: • boom suspension operational • break-back efficiency • height adjustment Remove, clean and refit a filter • remove and clean using appropriate method • contain spillage • check for defects, replace if damaged • refit Use of control panel may include: • functions of control panel

		• recognition of malfunctions before and during operation • check accuracy of base settings • switch to manual/test mode where applicable Part fill applicator • suitable site selected • safe secure mooring when transferring pesticides • fill by usual on-site method, following approved procedures • clean water supply Check applicator for leaks • use higher than normal operating pressure • lids and seals • pipe work and connections • control valves • filters • pressure gauge Action in event of control panel failing: • stop piscicide application • manual operation of controls if possible
4.4	Calibrate the applicator and record relevant data	Select and record boat forward speed: • direction of travel (upstream or downstream) • suitable boat forward speed for target • appropriate engine speed established • accurate measurement of distance • accurate measurement of time taken to cover distance • correct use of formula to establish forward speed Calculate required output/volume rate • correct use of formula Operating pressure • pressure as determined by manufacturers literature • pressurise/purge appropriate to the system Distribution outlet outputs • measure output • compare with target output • vary pressure to make small adjustments • or any other acceptable method Calibration data • boat identification

		• boat engine speed • applicator engine speed • boat forward speed • application volume • pressure • flow rate
4.5	Calculate the quantities of piscicide and water required for a specified area	To include: • amount of water required for specified area/volume • amount of piscicide required for specified area/volume • amount of piscicide required for full tank
5.1	Measure the required quantities and add to the applicator	To include: • safe, secure mooring when transferring pesticides and equipment • correct selection and use of PPE/RPE (as required by the product label and/or COSHH/Risk Assessment) • suitable site selected • fill by usual on-site method, following approved procedures • clean water supply • accurate measurement of water • accurate measurement of piscicide • correct filling procedure • use of filling device if fitted • avoidance of spillage • observance of piscicide manufacturer's instructions for mixing and agitation
5.2	Demonstrate safe and accurate application procedures	Methods to achieve accurate application Marking out the site to include: • marker poles • blob markers • buoys • GPS Procedure to refill applicator part way through application: • mark the spot at which the applicator emptied • refill applicator • continue spraying by accurately matching at the appropriate point Demonstrate safe and accurate application procedures to include: • operate controls to start and finish applying accurately at the beginning and end of each bout

		• correct forward speed and pressure for site conditions • accurate matching of bouts/use of marking aids • coping with obstacles • all of specified area treated • awareness of changes in wind speed and direction
5.3	Carry out all activities protecting human health and the environment	To include: • prevention of personal injury and contamination through correct selection and use of PPE (as required by the product information, COSHH/Risk Assessment) • prevention of public/bystander contamination • safe filling procedure • avoidance of off target application/contamination • avoidance of over dosing/under dosing target • minimising the impact on the aquatic environment
5.4	Complete a treatment record	Completion of the treatment record must be: • accurate • legible (if handwritten)
6.1	Explain how to manage surplus piscicide and waste material	Surplus concentrate piscicide • return to temporary mobile store • return to fixed store Containers: • triple rinsed • placed in secure storage until disposal • returned to supplier • collected by licensed waste contractor Packaging: • thoroughly emptied • placed in secure storage until disposal • collected by a licensed waste disposal contractor Surplus dilute piscicide • back on to site as long as it is below the maximum dose rate • collected by a licensed waste disposal contractor
6.2	Explain how to clean and decontaminate the applicator and the boat	May include: • select and use appropriate PPE • appropriate site

		• thorough washing with water and suitable cleaning agent (if recommended/required) • internal and external surfaces • use of in-built wash systems if provided • care to ensure contamination 'hot-spots' are clean • thorough flushing of systems • appropriate bio-security measures implemented • safe disposal of contaminated washings • when cleaning should take place • safe procedures followed
6.3	Describe the storage requirements for the applicator	May include: • ensure the applicator is clean and dry • inspect for wear and damage • replace any worn or damaged parts • controls left in appropriate positions • frost protection measures implemented • lubricate as required • store undercover and out of direct sunlight • store in a secure area

Appendix 1 Practical table

141 Operating boat mounted sprayers fitted with hydraulic nozzles/rotary atomisers for applying pesticides to water

All criteria must be achieved.

Activity number and description	Achieved
1.1 Describe the legal requirements relating to applying pesticides using boat mounted sprayers	
1.2 Describe how to apply pesticides safely using boat mounted sprayers following industry best practice	
2.1 Identify risks to the aquatic environment	
2.2 Explain how to minimise risks to the environment	
3.1 Read product information	
3.2 Interpret product information	
4.1 Identify sprayer components and controls	
4.2 Carry out pre use checks to the boat	
4.3 Carry out pre-use and operational checks to the sprayer	
4.4 Calibrate the sprayer and record relevant data	
4.5 Calculate the quantities of pesticide and water required for a specified area	
5.1 Measure the required quantities and add to the applicator	
5.2 Demonstrate safe and accurate application procedures	
5.3 Carry out all activities protecting human health and the environment	
5.4 Complete a treatment record	
6.1 Explain how to manage surplus pesticide and waste material	
6.2 Explain how to clean and decontaminate the sprayer and the boat	
6.3 Describe the storage requirements for the sprayer	

142 Operating boat mounted granular applicators for applying pesticides to water

All criteria must be achieved.

Activity number and description	Achieved
1.1 Describe the legal requirements relating to applying pesticides using boat mounted granular applicators	
1.2 Describe how to apply pesticides safely using boat mounted granular applicators following industry best practice	
2.1 Identify risks to the aquatic environment	
2.2 Explain how to minimise risks to the environment	

3.1 Read product information	
3.2 Interpret product information	
4.1 Identify applicator components and controls	
4.2 Carry out pre use checks to the boat	
4.3 Carry out pre-use and operational checks to the applicator	
4.4 Calibrate the applicator and record relevant data	
4.5 Calculate the quantities of pesticide required for a specified area/volume	
5.1 Measure the required quantities and add to the applicator	
5.2 Demonstrate safe and accurate application procedures	
5.3 Carry out all activities protecting human health and the environment	
5.4 Complete a treatment record	
6.1 Explain how to manage surplus pesticide and waste material	
6.2 Explain how to clean and decontaminate the applicator and the boat	
6.3 Describe the storage requirements for the applicator	

143 Operating boat mounted applicators for applying pesticides to water

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1.1 Describe the legal requirements relating to applying pesticides using boat mounted applicators	
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4.2 Carry out pre use checks to the boat	
4.3 Carry out pre-use and operational checks to the applicator	
4.4 Calibrate the applicator and record relevant data	
4.5 Calculate the quantities of piscicide and water required for a specified area	
5.1 Measure the required quantities and add to the applicator	
5.2 Demonstrate safe and accurate application procedures	
5.3 Carry out all activities protecting human health and the environment	
5.4 Complete a treatment record	
6.1 Explain how to manage surplus piscicide and waste material	
6.2 Explain how to clean and decontaminate the applicator and the boat	
6.3 Describe the storage requirements for the applicator	

Appendix 2 Sources of general information

The following documents contain essential information for centres delivering City & Guilds qualifications. To download the documents and to find other useful documents, go to the ***Centre Document Library*** on ***www.cityandguilds.com*** or click on the links below:

Quality Assurance Standards: Centre Handbook
This document is for all approved centres and provides guidance to support their delivery of our qualifications. It includes information on

- Centre quality assurance criteria and monitoring activities
- Administration and assessment systems
- Centre-facing support teams at City & Guilds / ILM
- Centre quality assurance roles and responsibilities.

The Centre Handbook should be used to ensure compliance with the terms and conditions of the Centre Contract.

Quality Assurance Standards: Centre Assessment
Approved centres must have effective quality assurance systems to ensure optimum delivery and assessment of qualifications. Quality assurance includes initial centre approval, qualification approval and the centre's own internal procedures for monitoring quality. Centres are responsible for internal quality assurance and City & Guilds is responsible for external quality assurance. All external quality assurance processes reflect the minimum requirements for verified and moderated assessments, as detailed in the Centre Assessment Standards Scrutiny (CASS), section H2 of Ofqual's General Conditions. For more information on both CASS and City & Guilds Quality Assurance processes visit: the What is CASS? and Quality Assurance Standards documents on the City & Guilds website.

This document sets out the minimum common quality assurance requirements for our regulated and non-regulated qualifications that feature centre assessed components. Specific guidance will also be included in relevant qualification handbooks and/or assessment documentation.

It incorporates our expectations for centre internal quality assurance and the external quality assurance methods we use to ensure that assessment standards are met and upheld. It also details the range of sanctions that may be put in place when centres do not comply with our requirements, or actions that will be taken to align centre marking/assessment to required standards. Additionally, it provides detailed guidance on the secure and valid administration of centre-assessments.

Access arrangements - When and how applications need to be made to City & Guilds provides full details of the arrangements that may be made to facilitate access to assessments and qualifications for candidates who are eligible for adjustments in assessment.

The ***Centre Document Library*** also contains useful information on such things as:

- Conducting examinations
- Registering learners

- Appeals and malpractice

Useful contacts
Please visit the Contact Us section of the City & Guilds website, ***Contact us***

About City & Guilds

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

City & Guilds Group

The City & Guilds Group is a leader in global skills development. Our purpose is to help people, organisations and economies develop their skills for growth. We work with education providers, employers and governments in over 100 countries across the world to help people, businesses and economies grow by shaping skills systems and supporting skills development.

The Group is made up of City & Guilds, ILM, Kineo, The Oxford Group, Gen2, and Intertrain. Together we set the standard for professional and technical education and corporate learning and development around the world.

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