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NPTC LEVEL 2 AWARD IN THE SAFE USE OF PESTICIDES (QCF)

MODULE PA(SC)
SPECIAL CATEGORY EQUIPMENT

ASSESSMENT SCHEDULE

Module PA (SC) SPECIAL CATEGORY EQUIPMENT

This module is intended to accommodate any item of pesticide application equipment for which there is no category in the existing suite of schedules (PA2 – PA13) and can only accessed via an assessment centre, who will liaise directly with City & Guilds NPTC in order to appoint an appropriate Assessor.

Typical examples of the type of equipment which would qualify under PA(SC) are shown in the **Validation of Equipment** section.

Candidates undertaking assessment will need to complete all assessment activities appropriate to the applicator they use. Assessors will conduct the assessment in the context of the equipment available.

Objective - Candidates will be able to:-

1. Prepare a pesticide applicator for work, calibrate and operate it to ensure correct application rate without risk to themselves, other people and the environment.

2. Use the information detailed on product labels to determine the approved uses for the product and its potential hazards to human safety, non-target areas and the environment in general.

3. Carry out daily and routine maintenance of the applicator.

4. Carry out the correct procedure for clearing personal protective equipment and application equipment which may have been contaminated with pesticide.

Qualification and Credit Framework (QCF) – credit value
PA (SC) has a credit value of 2 credits on the QCF

Safe Practice
Operating the equipment in such a way as to put the candidate, Assessor, equipment or the environment at risk will cause the candidate to be declared not yet competent.

All equipment must be of the standard required under current Health & Safety legislation.

Candidates must wear personal protective equipment (PPE) appropriate to the risk whenever carrying out work on, or operating the applicator.

Contaminated equipment should never be taken into an enclosed cab or operating station

In addition, before entering a cab (or any enclosed operating station), any PPE not required by legislation (other than coveralls and wellington boots) should be removed and placed in a suitable external locker/container.

Candidates must be especially careful to avoid personal contamination when operating uncabbed or partially cabbed prime movers and also be aware of the effect that changing circumstances have on the stability of the equipment.

Pre-requisites
The foundation unit (PA1) is required by candidates before being assessed for this application unit.

Validation of Equipment
Typical examples of equipment which would qualify for a PA(SC) assessment would be:-

- Automated glasshouse sprayers
- Multi-modal applicators on potato planters
- Rail-track bankside spraying modules

However, it is recognised that innovative application equipment is always being developed and there are many more examples where PA(SC) will be appropriate.

Operator's instruction book and calibration charts/calculators should be available for use by the candidate throughout the assessment.

Any other relevant literature (including training notes) may also be used.

The assessment should be conducted in the context of the work situation.

Candidates who undertake this assessment and are judged 'competent' are reminded of their legal obligation to receive/undertake appropriate additional training in the use of any equipment that differs from that used during the assessment, but which they are nevertheless qualified to use.

Endorsements
The qualification will be endorsed by the make, model and description of the application equipment used in the assessment. The assessor is to complete this information onto the CARF at the assessment.

Site
Work site with area to allow calibration and an area where applicator operation can be undertaken.

Suggested facilities and equipment required to run the assessment:

First Aid kit which complies with the Health & Safety (First Aid) Regulations 1981
Instruction book for applicator.
Washing facilities.
Personal Protective Equipment to comply with pesticide label/COSHH risk assessment

Appropriate containers with pesticide or simulated pesticide.
Clean product labels or label duplicates appropriate to the application operation.
Site for practical work.
Appropriate site for cleaning applicator.
Appropriate Application Record Sheets.

Assessment Activity	Assessment Criteria
Preparation	
1. Identify applicator controls/components and demonstrate knowledge of the application mechanism	- All relevant components - All relevant controls - Knowledge of working principles of application mechanism
2. Demonstrate knowledge of preparation of prime mover (if applicable)	- Fit carbon filter - Use in-cab controls - Ensure ventilation system is working correctly - Close all windows - Compatibility of prime mover and applicator - Front weights - Appropriate ballast weights - Tyre pressures correct and tyres in good condition - Guarding
Demonstrate knowledge of legal requirements and safety regulations	- Be aware of any safety implications imposed by Risk Assessment on the prime mover, the applicator and the operation and comply with their requirements - Ensure that all required guards are in place and in good condition - Comply with all relevant *road traffic* regulations when operating or transporting on the public highway - Comply with the Pesticides Code of Practice
3. Demonstrate knowledge of safe driving (if applicable)	- Assess conditions - Desirability of 4-wheel drive - Appropriate speed - Correct gear selected - Applicator correctly attached - Effect of changing load on stability - Use of weights to stabilise the prime mover - Check tyre pressures - Correct turning procedure - Keep centre of gravity as low as possible - Independent brakes coupled together when on a public highway - Travelling at high speed makes vehicle unstable
4. Check applicator for cleanliness and mechanical defects	- Metering and delivery systems checked – free and undamaged - Seized, worn or damaged components - Drive systems - Condition and tension of belts - Boom suspension/break back-devices (if appropriate)
Check security of attachment of application mechanisms.	- Fasteners secure - All linkages secure - Side sway restricted
Demonstrate knowledge of lubrication of components.	- Identify all lubrication points by using the instruction book - Components that should not be lubricated
5. Read and interpret product label (as supplied or approved by the Assessor)	- Field of use - Hazard symbol - PPE Requirements - Product being used - Specific product precautions - Appropriate for type of applicator - Dose rate - Maximum number of treatments - Timing - Additional label information - Restrictions on use - Target

Assessment Activity	Assessment Criteria
6 Part fill Applicator	- Suitable site selected - Fill by usual on-site method following approved safe procedures - Optimum positioning for efficiency - Security of pesticide on site - Safe storage of empty containers - Facility for dealing with/containing spillage - Clean water supply
Calibrate the Applicator	
7. Make such checks, measurements and/ or timings as necessary to calibrate the applicator Calculate required output	- Accurate measurements - Accurate timings - Accurate calculations - Correct use of formulae
8. Set applicator to achieve required application rate Carry out check of application rate Adjust applicator to achieve the correct application rate	- Use of manufacturers handbook/application rate charts - Safe procedures followed - NB Method used will depend on type of applicator, recommendations given in manufacturer's operator's handbook and/or established sound practice - Compare with target rates - Care to avoid moving parts - Care to avoid contamination - Use of manufacturers handbook
9. Demonstrate knowledge of factors affecting uniformity of application	- Applicator settings - Density/condition of pesticide product - Factors affecting distribution pattern • Physical • Environmental
10. Demonstrate knowledge of calibration data to be recorded	- Machine settings used - Product used for calibration - Application rate achieved - Registration no. of prime mover - Vehicle gear selected - Engine speed (rpm) - Vehicle speed - Vehicle wheel sizes and pressures

Assessment Activity	Assessment Criteria
11. Carry out an environmental risk assessment of the application site	May include: - Ground conditions - Water courses - Buffer zones - Drains - Wildlife - Flowering plants - Public access - Sensitive crops - Hedgerows - Housing - Factors particular to the site - Warning signs - Check and maintain application rate - Other environmental margins - Warn neighbours - Use an appropriate pesticide - Careful timing of application - Comply with environmental assessment - Incorporation of pesticide into growing medium - Wind speed gauge at suitable height or visible signs - Wind direction - Awareness of likely effects of product on non-target crops, wildlife and the environment - Effect of wind speed and direction - Effect of direction of travel - Accuracy of application - Avoid contamination of non target areas - Incorporation of pesticide into growing medium
Site Work	
12. Calculate pesticide required for a specified area/volume/site. Measure and add pesticide to tank/hopper, safely filling to the required level	- Determine size of area/volume to be treated - Accurate calculation of pesticide quantities - Ensure approved techniques are followed with regard to safe practice - Accurate measurement of pesticide quantities
13. Demonstrate knowledge of accurate application procedures on site	- Accurate marking - Monitoring of pesticide levels - Specific industrial criteria
14. Apply pesticide product to a given area/site in a safe and appropriate manner	- Avoid operator contact - Operate controls safely and accurately - Correct forward speed (if applicable) - Accurate matching of bouts/use of driving aids - Correct positioning/height of applicator - Coping with obstacles (if applicable) - All area/site treated, minimising overlaps or misses. - Awareness of changes in environmental conditions.

Assessment Activity	Assessment Criteria
Post Operation	
15. Demonstrate knowledge of:	
a) cleaning and decontamination of the applicator	- Select appropriate site - Follow manufacturer's cleaning procedures - Risk of contamination - Frequency of cleaning - Follow safe procedures
b) the procedure prior to any repair or replacement of parts	- Select an appropriate containment site and possible containers for contaminated material. - Ensure that the applicator is made safe - Ensure that section to be repaired/replaced is safely isolated - Applicator decontaminated
c) preparation of applicator for storage	- Refer to manufacturer's handbook for guidance - Ensure applicator is clean and decontaminated - Carry out lubrication procedures - Danger of personal contamination - Store in secure conditions
16. Complete application record	- Records completed - Accurate recording