

TECHNICAL NOTES PART II

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Purpose of Guide

This Guide is designed for WDA's Training Providers (TPs) and Adult Educators who are responsible for the design and delivery of programs within the "Operate Boom Lift" Course of the Generic Manufacturing Skill. This Guide aims to provide essential curriculum, training and assessment design advisory information, to guide developers, trainers and assessment in the interpretation and translation of competency standards into training and assessment programme. The Guide also contains training and assessment requirements stipulated by industry, and WSQ accreditation information for compliance. It is divided into 2 parts:

Part I - Details specific recommendations and advice for "Operate Boom Lift" programme developers.

Part II - Provides a broad spectrum of information about WSQ and related components relevant to the "Operate Boom Lift" course.

PART I

WSQ

Operate Boom Lift

CHAPTER 1: WSQ OPERATE BOOM LIFT

1.1 Key Features of WSQ Operate Boom Lift Competency Standard

The Competency Elements covered are:

- | | |
|------|-------------------------------------------|
| CE 1 | Prepare to carry out boom lift operations |
| CE 2 | Carry out boom lift operations |
| CE 3 | Conduct post operation of boom lift |

Why this Course?

The "Operate Boom Lift" Course is aimed at providing individuals with the knowledge and skills to operate boom lifts safely. At the end of the course, participants will be proficient in selection of appropriate boom lifts, conducting *risk assessment and route checks, identification of hazards for boom lift operations, basic boom lift operations and reinstating boom lifts in a safe manner.

* The Risk Assessment/Management process should consider the management of infectious disease outbreak, employees' health (including mental well-being) and terrorist threats relevant to the role of a Boom Lift Operator (what he/she should do). Training Provider should take reference from the 3rd revision of the Code of Practice on Risk Management.

1.2 Importation of Elective Credits from Other WSQ Frameworks or Recognised Equivalents

Not Applicable

1.3 Target Audience

The “Operate Boom Lift” course is suitable for aspiring and experienced individuals assigned as Boom Lift Operators in the workplace.

Learners must be above 18 years of age and are assumed to:

- Have a basic knowledge of the relevant sector of work
- Be able to listen and speak English at a proficiency level equivalent to the Employability Skills (ES) level 3
- Be able to read and write English at a proficiency level equivalent to ES level 3
- Be able to manipulate numbers at a proficiency level equivalent to ES level 3; and
- Be medically fit to work at height

1.4 Recommended Learning Hours (RLH)

- RLH = 8 training hours + 45 mins written assessment + 30 mins practical assessment.
- The RLH takes into account the time required for direct learning activities. Direct learning is broadly defined as trainer/assessor-directed and involves purposeful instructions given to trainees to complete as part of instructional design of a structured facilitated training and assessment programme.

	Duration	Remarks
Facilitated Learning	8 hours	
Assessment	1 hour 15 minutes	

1.5 Recommended Class Size and Facilitator-Learner Ratio

- Recommended Class Size - 5 and Trainer/Facilitator-Learner ratio: 1:5
- Recommended Trainer/Facilitator- Learner ratio for practical sessions: 1:5
- Attendance Requirements: 100% for classroom and practical sessions

1.6 Recommended Assessor to Candidate Ratio

- Written Assessment: 1 : 5 (Class size)
- Practical Performance: 1 : 1

CHAPTER 2: TYPES OF PROGRAMME

2.1 Programme Structure

This unit covers the following underpinning knowledge item which could be taught in the classroom via a combination of lectures, discussions and case-studies.

- Types of hazards
- Factors affecting stability
- Factors for selection appropriate boom lifts
- Fundamentals of boom lifts pre-use
- Main components of boom lift
- Safe working load of boom lift
- Safety devices, signage, labels and boom lift controls
- Legislations and industry guidelines relating to boom lift operations
- Types of Personal Protective Equipment (PPE)
- Operational procedures relating to boom lift operations
- Safe work practices for boom lift operation
- Modes of manoeuvring
- Standard operating procedures for post-operation of boom lift
- Routine post-operation checks
- Reporting procedures for damage and defects

The unit also covers the following Performance Criteria: These would best be taught via a combination of **lecture, demonstrations and hands-on practice.**

CE 1 Prepare to carry out boom lift operations

- 1.1 Identify hazards and safe routes to be taken for boom lift operations
- 1.2 Observe and apply safe work practices when preparing to operate boom lift
- 1.3 Prepare work area for safe operation of the boom lift
- 1.4 Use appropriate personal protective equipment in accordance with organisational procedures
- 1.5 Perform pre-use inspection on boom lift, its associated components and safety devices/signage/labels
- 1.6 Perform function checks on boom lift
- 1.7 Report all damage and defects according to procedures, and take appropriate action as per organisational procedures

CE 2 Carry out boom lift operations

- 2.1 Apply safe work practices when carrying out boom lift operations
- 2.2 Manoeuvre boom lift according to operator manual
- 2.3 Travel the identified route to, from or within the work area
- 2.4 Operate boom lift in stable position according to operator manual

CE 3 Conduct post operation for boom lift

- 3.1 Park and Shut down of boom lift
- 3.2 Carry out routine post-operational boom lift checks and maintenance according to safe work procedures
- 3.3 Report all damage and defects according to safe work procedures, and appropriate action is taken.

CHAPTER 3: KEY DELIVERY ADVICE

3.1 Content Coverage

In developing the programme for the “Operate Boom Lift” competency unit, TPs should always make cross references to the Competency Elements (CE) / Performance Criteria, Underpinning Knowledge (UK), Range of Application and Evidence Sources sections as stipulated in the “Operate Boom Lift” National Competency Standard.

The components of the Competency Standard and the interpretations are briefly explained here.

For example,

The Range and Application and Evidence Sources reference to the Performance statements and/or Underpinning Knowledge is usually accompanied by the instructions “may include” or “must include”:

“May include”

- Indicates that training providers are required to cover some (to indicate percentage if relevant) of the suggested Range and Context items listed when developing the “Operate Boom Lift” programme.
- The training provider may choose to add more Range and Context items related to the corresponding Performance Statements and/or Underpinning Knowledge as part of their “Operate Boom Lift” programme development.

“Must include”

- Indicates that training providers are required to cover all of Range and Context items listed when developing courseware.
- The training provider may choose to add more Range and Context items related to the corresponding Performance Statements and/or Underpinning Knowledge as part of their “Operate Boom Lift” programme development.

Competency Element Title

1. Prepare to carry out boom lift operations

Underpinning Knowledge

A competent individual needs to know and

understand: UK 1.1 Types of hazards

UK 1.2 Factors affecting stability

UK 1.3 Factors for selection appropriate boom lifts

UK 1.4 Fundamentals of boom lifts pre-use

UK 1.5 Main components of boom lift

UK 1.6 Safe working load of boom lift

UK 1.7 Safety devices, signage, labels and boom lift controls

UK 1.8 Legislations and industry guidelines relating to boom lift operations

UK 1.9 Types of Personal Protective Equipment (PPE)

UK 1.10 Operational procedures relating to boom lift operations

Performance Criteria

A competent individual must be able to successfully perform the following:

PC 1.1 Identify hazards and safe routes to be taken for boom lift operations

PC 1.2 Observe and apply safe work practices when preparing to operate boom lift

PC 1.3 Prepare work area for safe operation of the boom lift

PC 1.4 Use appropriate personal protective equipment in accordance with organisational procedures

PC 1.5 Perform pre-use inspection on boom lift, its associated components and safety devices/signage/labels

PC 1.6 Perform function checks on boom lift

PC 1.7 Report all damage and defects according to procedures, and take appropriate action as per organisational procedures

Range and Context

Types of hazards may include but not limited to:

- Overturning due to:
 - Drop offs or holes
 - Slopes
 - Bumps
 - Floor Obstructions
 - Debris
 - Inadequate ground bearing pressures
 - Unfavourable wind and weather conditions
 - Rough and non-level surfaces
 - Operator being unfamiliar with controls
- Entrapment due to:
 - Overhead obstructions
 - Confined areas
 - Operator being unfamiliar with controls
- Falling due to:
 - Risk of working at height
- Collision with:
 - building structures
 - electrical conductors
 - persons in the vicinity
 - vehicles and other moving objects
 - Overturning due to using machines designed for indoor use in outdoor conditions- risk of overturning
 - Rough or non-level surfaces- risk of overturning
 - Operating specific boom lift- risk of operator being unfamiliar with controls
- Other Environmental hazards which may include:
 - Hazardous locations
 - Electrocuting hazards
 - Wind and thunderstorms

Factors affecting stability may include but not limited to:

- Wind forces
- Ground conditions
 - Slopes
 - Surfaces
- Side forces
- Incorrect setup
- Suspended surfaces

Factors for selection of appropriate boom lift

- Height
- Ground Condition
- Indoor/outdoor
- Safe Working Load

- Number of persons
- Obstruction
- Building façade

Fundamentals of boom lift pre-use may include but not limited to:

- Specific safety requirements for boom lift
- Record of maintenance of boom lift
- Certificate of test and examination of the lifting machines

Main components of boom lift (where applicable) may include but not limited to:

- Tyres
- Hydraulics
- Main frames
- Turntables
- Fluid levels
- Hoses
- Electrical cables
- Booms
- Work platform
- Brakes
- Steering
- Lights
- Travel
- Controls
- Pins/retaining bolts
- Decals
- Anchorage point
- Toe board

Safety Devices (where applicable) may include but not limited to:

- Level indicator
- Load sensing system
- Moment sensing system
- Movement controls
- Emergency stop button
- Anchorage
- Visual and audible indicators
- Emergency lowering device
- Stabilising systems, such as:
 - Oscillating/extending axles

Warning Sign and labels may include but not limited to:

- Boom lift data plates/labels

- Boom lift warning signs and labels
- Labels on the control panel
- Working envelope
- Safe Working Load labels
- Statutory Examination Label/ Sticker
- Tyre pressure on ground (wheel load)
- Number of persons allowed

Boom lift controls may include but not limited to:

- Stabilising
- Levelling
- Chassis drive options
- Emergency control

Legislations and industry guidelines relating to boom lift operations may include but not limited to:

- WSH Act
- WSH subsidiary legislation including but not limited to the WSH (Work at Height) Regulations
- Approved Code of Practices including but not limited to the Code of Practice for Working Safely at Height
- Relevant Industry guidelines such as Code of Practices and Singapore Standards

Types of Personal Protective Equipment (PPE) may include but not limited to:

- Safety shoes
- Safety helmet
- Appropriate gloves
- Safety goggles
- Fall arrest/ restraint system
 - Short Lanyard
 - Energy absorber
- Full body harness

Operational procedures relating to boom lift operations may include but not limited to:

- Procedure for identifying task, location and timing (day or night conditions) of boom lift usage
- Pre-use checks/inspection
 - Visual inspection on boom lift
 - Familiarisation on boom lift handling
 - Functionality checks on boom lift include controls at chassis and platform, stabilisers
 - Identify safety features and key controls
- Machine defects and emergency lowering
- Reporting procedures for damage and defects
- Reporting procedures if work preparation is incomplete
- Risk Assessment for task to be carried out
- Operator manual

Observe and apply Safe work practices when preparing to operate boom lift may include but not limited to:

- Safe work procedures (SWP)
- Fall prevention plan (FPP)
- Emergency plan for rescue from height
- Manufacturer's guidelines (instructions, specifications, operators manual and checklists)

Prepare work area for safe operation of the boom lift may include but not limited to:

- Check operating route is free from hazards
- Effective barricades setup

Perform function checks on boom lift which may include but not limited to:

- Functions of all boom lifts controls
 - Indicators may include tilt alarm
- Emergency controls

<p>Competency Element Title</p> <p>2. Carry Out boom lift operations</p>
<p>Underpinning Knowledge</p> <p>A competent individual needs to know and understand:</p> <p>UK2.1 Safe work practices for boom lift operation UK UK2.2 Modes of manoeuvring</p>
<p>Performance Criteria</p> <p>A competent individual must be able to successfully perform the following:</p> <p>PC2.1 Apply safe work practices when carrying out boom lift operations PC2.2 Manoeuvre boom lift according to operator manual PC2.3 Travel the identified route to, from or within the work area PC2.4 Operate boom lift in stable position according to operator manual</p>
<p>Range and Context</p> <p>Safe Work Practices for boom lift operation may include but not limited to:</p> <ul style="list-style-type: none"> • Control and safety of raising and lowering booms • Slewing and telescoping • Deployment of outriggers / stabilisers (if fitted) • Workplace inspection • Identification of hazards • Use of PPE <p>Modes of manoeuvring may include but not limited to:</p> <ul style="list-style-type: none"> • Double "U" course (front in, reverse out) • Close manoeuvring circuit (between tight space of equivalent to 125% of machine width • S-curve circuit: <ul style="list-style-type: none"> ○ Travel – Forward and backward ○ Steer – left and right ○ Raise (platform) ○ Lower (platform) ○ Order /sequence of boom functions – (raising lowering, slew, tele in/ out)

Operate boom lift in stable position according to operator manual may include but not limited to:

- Position boom lift ready for carrying out of work/job
- Extend boom/platform
- Completing a task using the boom lift (e.g. touching an elevated point at least 75% of the machine platform height)
- Finer adjustment (Example: slewing left and right, extend and retract booms, operate extra jib, platform rotate, platform level) of boom lift to reach intended work area

Competency Element Title

3. Conduct post operation for boom lift

Underpinning Knowledge

A competent individual needs to know and understand:

- UK3.1 Standard operating procedures for post-operation of boom lift UK
- UK3.2 Routine post-operation checks
- UK3.3 Reporting procedures for damage and defects

Performance Criteria

A competent individual must be able to successfully perform the following:

- PC3.1 Park and Shut down of boom lift
- PC3.2 Carry out routine post-operational boom lift checks and maintenance according to safe work procedures
- PC3.3 Report all damage and defects according to safe work procedures, and appropriate action is taken.

Range and Context

Standard operating procedures for post-operation of boom lift may include but not limited to:

- Park and Shut down may include but not limited to:
 - Boom lift is fully stowed
 - Parked on stable ground
 - Engine stopped/ power source isolated
 - Brakes applied
 - Keys removed
 - Clearance of obstacles
 - Away from doorways/ fire access way
 - Remove all gears and tools from work platform
 - Shut off fuel valve (if fitted)
 - Close and lock control cover and engine cover (if fitted)

- Housekeeping procedures
 - Clear work area
 - Reuse, recycle or dispose waste materials
 - Clean boom lift machine, tools and equipment

Carry out routine post-operational boom lift checks and maintenance according to safe work procedures may include but not limited to:

- Refuelling / Charging
- Condition of tyres
- Safety precautions
 - Ventilation during refuelling and charging

Reporting procedures for damage and defects may include but not limited to:

- Manufacturer's guidelines (instructions, specifications, operators manual or checklists)
- Industry operating procedures
- Workplace procedures (Work instructions, operating procedures, checklists)
- Organisational operating procedures

Range and Context applicable across all CEs

Tools and Equipment

Use of tools & equipment, which may include:

- Use of PPE, which may include but not limited to:
 - Safety shoes
 - Safety helmet
 - Appropriate gloves
 - Safety goggles
 - Harness and accessory equipment
 - Fall arrest/ restraint system
 - Short Lanyard
 - Energy absorber
 - Full body harness

Procedures

Apply procedures, which may include:

- Operational instructions
- Work tasks/instructions
- Manufacturer's guidelines (instructions, specifications, operators manual or checklists)
- Industry operating procedures
- Safe work procedures

Documentations

Documents involved may include but not limited to:

- Maintenance book
- Operational logbook
- Certificate of test and examination of the lifting machines
- Risk assessment
- Safe work procedures (SWP)
- Fall prevention plan (FPP)
- Emergency plan for rescue from height
- Manufacturer's guidelines (instructions, specifications, operators manual and checklists)

Legislation

Latest Legislations and industry guidelines may include but not limited to:

- WSH Act
- WSH subsidiary legislation including but not limited to the WSH (Work at Height) Regulations
- Approved Code of Practices including but not limited to the Code of Practice for Working Safely at Height
- Relevant Industry guidelines such as Code of Practices and Singapore Standards

Interactions

Work with people, who may include:

- Co-workers/peers
- Supervisors
- Contractors
- Clients

Resources

- Checklists
- Case studies from WSH Council website (<http://www.wshc.sg>)

3.2 Sequence of Coverage

The following sequence is recommended:

Day One	Classroom (covering Underpinning Knowledge)
	Hands on practice of Competency Elements and Performance Criteria (covering skills and attitudes)

3.3 Recommended Learning Strategies and Methods

Curriculum developers are recommended to adopt the following structure for thinking about and planning a learning strategy:

- Summarise the learning strategy
- In this learning strategy, what learning principles are being applied?
- What learning theories or learning design theories underpin this strategy?
- How will this strategy resolve the identified learning problems? What is it about the learning strategy that will cause people to change in a way that resolves the learning problem?

- How would you describe the experience that learners will go through? How will this experience support their learning?
- What methods or tactics are most likely to be used to support this strategy?
- How will interface and media support this strategy?
- How will this strategy engage learners' interests?
- How will this strategy assess learners' progress or increased competence?

(extracted from www.networked-learning.com, accessed 19 Sep 2010)

An example of instructional strategy selection for cognitive, affective and psychomotor domains is given in **Annex A**.

A non-exhaustive list of recommended delivery methods is provided below.

- Demonstration
- Practice
- Observation
- Lectures
- Role play
- Group Discussion
- Written Exercise
- Case Study
- Workplace Practice
- Presentation
- Action Learning
- Coaching / Mentoring

Where relevant and appropriate, the learning activities for the unit should be designed to shape or cultivate the expected attitudes of the candidates and to prepare them for their role in the sector.

To enhance the transfer of learning, an andragogical or adult-learning approach to learning is encouraged in the development and delivery of the Competency Unit. Andragogical instructional techniques are designed with these factors in mind:

- Adults are self-directed
- Adults have acquired knowledge and experience through the workplace that

can be utilised as a resource for learning

- Adults show a greater readiness to learn tasks that are relevant to their work roles
- Adults are motivated to learn in order to solve problems and address needs
- Adults expect to be able to apply what they learn
- Adults need to be challenged with varied strategies that maintain interest

This unit must be delivered in a simulated environment within a designated training centre.

- Content relating to underpinning knowledge and principles must be delivered in the classroom setting. Classroom delivery should be interactive and learner-centred, using a range of activities and instructional methods.
- The practical aspects of the Competency Unit must be delivered in a simulated environment within a designated training centre.

All training delivery should be related to the normal work process and every effort should be made to link the acquisition and application of the knowledge, skills and attitudes to the workplace.

Suggestions for delivery of this Competency Unit are given below:

Competency	Instructional Methods	Remarks
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Underpinning Knowledge	Lectures, discussions, case studies, problem-based learning, videos, e-learning resources	<p>The theory part of the course ensures that the worker has a basic understanding of the principles and processes to safely operate the Boom Lift. This should include the following underpinning knowledge:</p> <ul style="list-style-type: none"> • Requirements under the WSHA and Code of Practice for Working Safely At Height related to Boom Lift Operations • Identification of major components of a Boom Lift and its function • Thorough examination and pre-start inspection • Common hazards related to Boom Lift operation • Safe operating methods for Boom Lift and emergency procedures <p>These can be delivered in a classroom using models and slides.</p>
Competency Elements / Performance Criteria	Lectures, demonstrations, practice	<p>The demonstration and practice may include the following key skills:</p> <ul style="list-style-type: none"> • Prepare to carry out boom lift operations • Carry out boom lift operations • Conduct post operation of boom lift <p>These skills can be further defined as:</p> <ul style="list-style-type: none"> • Carry out a pre-operation inspection <ul style="list-style-type: none"> ▪ Hazard assessment and implementation of control measures ▪ Plan the movement route ▪ Set up the boom lift for work ▪ Operate the boom lift safely ▪ Park the boom lift safely as part of post operational check ▪ Boom lift and work site clean up <p>Note: Trainees who have failed the written assessment may still participate in practice sessions to operate the boom lift. However, they cannot attempt the practical assessment.</p>

Attributes	Discussions, modelling, sharing	<p>A competent Boom Lift Operator is required to have a "safety first" mindset. At all times he must:</p> <ul style="list-style-type: none"> • Always check, consult and confirm • Stop immediately when abnormalities occur and reassess safety procedures • Report all incidents and not just accidents
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3.3.1 Facilitator's Guide and Learner's Guide and Handouts

The TP is required to prepare a facilitator's guide for the course. The guide provides the facilitator with information on the course including:

- Course aim
- Learning objectives
- Target audience
- Assumed skills and knowledge
- Course duration
- Class size and trainer/trainee ratio
- Lesson plan
- Course contents and instructional materials
- Training methodologies
- Training resource requirements
- Course administration instruction

To facilitate the learning process, it is recommended that the TP provided each trainee with a participant's workbook or handouts. This set of notes should contain the course aim, learning objectives and the key learning points (WSHA 2006, subsidiary legislations, industrial code of practice, safety guidelines etc) as well as guides for learning activities including the related safety considerations on the use of Boom Lifts.

The TP is required to submit a cross reference matrix (see Annex B) to show that the courseware submitted is aligned to the requirements of the NCS / CTAG.

The TP is to ensure that materials used for the training does not infringe on patent, design, copyright and intellectual property rights.

The TP shall maintain a version control of updates made to the course materials for verification by the relevant authorities.

3.3.2 Training resources:

- Relevant legislation
- Photos/slides of the various types of boom lifts
- Boom Lift operation manual and load chart
- Case studies relating to accidents involving boom lifts
- Models of different types of boom lifts
- Training videos
- PPE
- Others

3.3.3 Training Venue Requirements

The TP shall ensure that the classroom used for this training has adequate seating. Facilities inclusive of writing tables must be reasonably and comfortably spaced so as to be conducive to the learning process and for the purpose of conducting the assessment. Classrooms must be equipped with projectors, whiteboards, flipcharts and specific training aides related to the course. The classroom must be adequately illuminated and ventilated. Emergency exit signs and routings must be clearly demarcated and briefed to all the course participants at the start of the course.

Arrangements must be made for trainees to observe and practice performing actual boom lift operations at a training site. This on-site training would help to promote experiential learning which forms a necessary part of the skills component training.

Premises for on-site sessions must provide for a boom lift and a training venue meeting the following requirements:

- Training venue dimensions must accommodate at least 75% of the maximum height/ reach of the particular boom lift used for training.
 - E.g. if the TP uses a boom lift of 10m platform height, the venue dimensions must accommodate:
 - Length 7.5m,
 - Width 7.5m,
 - Height 7.5m

- Training venue must be set-up to support training and assessment in the following operations:
- Modes of manoeuvring (may include but not limited to):
 - Double “U” course (front in, reverse out)
 - Close manoeuvring circuit (between tight space of equivalent to 125% of machine width)
 - S-curve circuit:
 - Travel – Forward and backward
 - Steer – left and right
 - Raise (platform)
 - Lower (platform)
 - Order /sequence of boom functions – (raising lowering, slew, telescoping in/ out)
- Operate boom lift in stable position according to operator manual (may include but not limited to):
 - Position boom lift ready for carrying out of work/job
 - Extend boom/platform
 - Completing a task using the boom lift (e.g. touching an elevated point at least 75% of the machine platform height)
 - Finer adjustment (E.g.: slewing left and right, extend and retract booms, operate extra jib, platform rotate, platform level) of boom lift to reach intended work area

A briefing should be conducted before each practical session on the expected role(s) of the trainees to ensure safe boom lift operations. The well-being of the trainees should be considered when planning and conducting the practical sessions (e.g. heat, vehicle exhaust fumes).

The TP shall carry out risk management of the site used for demonstration and practice. Trainees should be briefed on the risk of the training prior to the conduct of training. There should be close supervision of the trainees during the practical sessions in line with safe work procedures.

In the event, where the TP wishes to conduct its WSH theory course(s) at a venue, other than the approved Training Venue, the TP must inform the CB, which had certified its WSH course(s) at the approved Training Venue/s, of its intent to effect such a change, and it must also demonstrate to the CB that:

- (a) It has an approved Training Venue at the registered address,
- (b) That the proposed venue is conducive for learning; and
- (c) That there are no safety and health concerns in relation to the proposed venue/s.

The TP may conduct its WSH theory course(s) at a venue other than the approved Training Venue/s only after obtaining the CB's approval.

The requirements stated above shall apply to a TP for single and multiple usage.

Where the CB has granted approval to the TP to conduct the WSH theory course(s) at an alternate venue, the TP must ensure that:

- (a) All training and assessment records are kept by the TP, for courses conducted, at the alternate venue. Such records shall include the following documents:
 - i. Photographs of the alternate venue,
 - ii. Photographs of the WSH theory course(s) being conducted at the alternate venue;
 - iii. Layout plan of the alternate venue; and
 - iv. Leasing documents.
- (b) The records mentioned in (a) above, are continually updated;
- (c) The alternate venue is only used for the conduct of WSH theory course(s). No practical training/assessment shall be allowed at the alternate venue, unless approval has been granted by the Authorities; and
- (d) The alternate venue is not occupied and or used by another TP or WSH approved training provider at any time.

The TP must ensure that all Training Venues (including alternate venues) have been approved by the Urban Redevelopment Authority (URA) or the Housing & Development Board ("HDB"), either as a Commercial School (theory based only) or for Industrial Training (theory and practical) before it applies to be certified by the CB.

Note: Tenancy agreement (e.g., from JTC Corporation or other Developers) does not constitute a URA approval. Only correspondence with letterheads bearing the office of the relevant government authorities granting the approval shall be recognised. The requirement shall not apply to TP who is applying for a one-off use of the theory training premises.

The TP is to note that a CB's approval of any practical training venue is conditioned upon its safe and adequacy of the training facilities and equipment. The TP shall comply with all relevant legislations including but not limited to legislations involving land use, building, fire and safety.

3.3.4 Total WSH Presentation Slides

- Total WSH presentation slides will be issued upon approval of the Training Provider.
- The materials are provided strictly for the explicit use and guidance of training providers for the conduct of this course.
- Any other use of the materials or parts thereof, reproduction, publication, distribution, transmission, re-transmission, or storage in a retrieval system in any form, electronic or otherwise, for purposes other than that expressly stated above without the express permission of WSH Council is strictly prohibited.

3.3.5 Training Provider Requirements

Training Providers are required to fulfill the following requirements:

- ISO 29993 certification;
- bizSAFE Level 3 certification;
- Blended learning
 - Have developed an SOP to conduct online training and assessment (with online proctoring for supervisor and above courses) when required to do so.
- For each WSH course, the Training Provider must have at least:
 - a. 1 full time Principal/Director;
 - b. 1 full time WSH Approved Adult Educator/ Trainer/Facilitators for each WSH course¹; and
 - c. 2 approved full time/associate Adult Educator/ Trainer/Facilitators for each of the language
- Training Providers are to inform the WSH Council when they withdraw their training provider status for any WSH course(s), or have their status suspended or terminated by any authority.

Training Providers are to comply with the instruction by either (i) SkillsFuture Singapore (SSG), Ministry of Manpower (MOM) or the WSH Council to stop conducting any WSH Course(s) when an investigation is ongoing, or a non-compliance is being verified. Further actions would be taken when fraudulent acts or significant non-compliances are established.

CHAPTER 4: KEY ASSESSMENT ADVICE

This chapter describes the following components:

A description on the general guidelines and requirements for conducting assessment is given in the reference WSQ resource websites in Part II of this document.

4.1 Recommended Assessment Strategies and Methods

A non-exhaustive list of assessment strategies and methods indicating the possible assessment methods or combination of assessment methods, as illustrated in below, can be used as a planning guide for determining the appropriate assessment strategy for the respective performance statements and underpinning knowledge for the “Operate Boom Lift” competency unit.

Written Assessment / MCQ
Practical Performance

Industry Requirements

- Candidates must pass both the WA and PP to be considered to have successfully completed the “Operate Boom Lift” Course. If a candidate was assessed as ‘NOT YET COMPETENT’, no re-sit for any assessment is allowed unless the candidate has attended the course again.
- A candidate who has successfully completed and attained a Statement of Attainment for “Operate Boom Lift” qualifies to perform the duties of a boom lift operator under the WSH Act.
- MOM/WSH Council officers shall conduct audits with or without notice on WSQ WSH TPs
- To facilitate uploading of the assessment results, TPs shall install the Automated Marking System (AMS) and its associated hardware.
- The TP personnel who is authorised to use the AMS must also ensure that the assessment results are updated in SSG’s TPGateway.
- TPs are to upload the test results to MOM/ WSH Council no later than 5 calendar days after completion of the courses. All errors must be rectified within 24 hours

for re-submission of the affected results to MOM/ WSH Council via WSH TRS. This is in addition to the uploading of assessment results to SSG via TPGateway.

- Authorities (i.e. MOM/ WSH Council) may request from TPs information on the course. TPs are to ensure that the information given to the Authorities are accurate and updated.

Note: For system(s) or requirement(s) administered by the relevant authorities, i.e. MOM/ WSH Council, the TP shall fulfil the requirements and follow up with the agencies accordingly.

4.2 Assessment Instruments and Tools

Assessments instruments and tools will be required to conduct the assessment planned. Examples of such templates include:

- An Evidence Sources Checklist to serve as a reporting snapshot of the types of evidence gathering that may be used.
- A Verbal Assessment Checklist to record answers to questions concerning Underpinning Knowledge if this is used as an alternative to written exercise.
- Written Assessment Checklists as an instrument for the recording of answers to questions concerning the performance statements and underpinning knowledge.
- A Recording and Reporting Assessment Table Format as an instrument for the concise recording of competency and re-assessment information concerning the Competency Unit.

4.3 Assessment Plan

4.3.1 General Guidelines

The aim of the assessment plan is to determine the competence of the candidate to undertake the role of a Boom Lift Operator upon successful completion the "Operate Boom Lift" Course. TPs are required to prepare an assessment plan for the course (refer Annex B for template).

The assessment plan must be directly related to all the learning objectives determined in the course. It comprises four main parts:

- Overview of the assessment tools and its duration
- Instructions for the conduct of the assessment
- Instruments or tools of assessment (Question paper, checklist)
- Assessment summary record

The assessment plan is subject to review on an annual basis by the TP to ensure that trainees are constantly kept current and competent to perform up to the industrial requirements.

4.3.2 Principles of Assessment

The assessment plan should be valid, reliable, fair and flexible.

- Valid – Are the assessment methods and tools appropriate and effective? Are the evidence collected relevant to the training?
- Reliability – Are the results consistent from one assessment to another?
- Fair – Are the assessment criteria clear? Do all the trainees know what to expect from the assessment? Will the assessment disadvantage any trainee? Do the trainees have any recourse for appeals?
- Flexibility – Can the assessment be used for multiple assessments? Are the assessment tools and methods uniform across different approaches and drawing on a range of different methods? Can they be used appropriately to the context, task and individual under assessment?

4.3.3 Recommended Assessment Strategies and Methods

Listed below are the assessment methods that can be used to assess the performance criteria and underpinning knowledge of WSQ “Operate Boom Lift”.

Method	Duration
Written Assessment	√ 45 minutes
Practical Performance	√ 30 minutes

Written Assessment (WA) / MCQ – This method of assessment is fast and the most convenient to conduct. It can be used for a large class over a wide range of knowledge based subjects. The written assessment can be in the form of a Multiple Choice Questionnaire (MCQ) or fill in the blanks.

Practical Performance (PP) – This method is highly recommended for skills assessment. It can be matched very closely to the actual task to be performed by the individual on the job.

4.4 Conduct of Assessment

The assessment must be conducted strictly in accordance with the assessment plan. In particular, each candidate must complete all the assessment requirements within the time allocated. A judgment on the competence of the candidate must be made based on the evidence gathered. The evidence for each of the assessment instrument can be collected from the outcomes of the WA and PP.

4.4.1 Assessment

The time allocated for the Written Assessment (WA) is 45 minutes. Time allocated for Practical Performance (PP) is 0.5 hour. The assessment components (WA and PP) are compulsory.

4.4.1.1 Written Assessment

Written assessments (close book) must comprise 30 questions, with a 80% passing mark.

During the administration of the written assessment, there shall be an assessor to ensure the integrity of the assessment process. The trainer for the course is not permitted to be the assessor for the same course during the assessment. An invigilator can be appointed in place of the assessor, but the trainer for the course must be on standby to make clarification on the questions where needed.

The number of attempts a candidate is allowed to be assessed in the written assessment is ONE. The candidate certified "NOT YET COMPETENT" after the assessment; the candidate must be re-coursed.

Note:

Candidates are allowed to attempt the practical performance only after being assessed as competent ("C") in the written assessment.

4.4.1.2 Practical Performance (PP)

The PP comprises assessment on boom lift operations and will cover Safe Operation; Modes of Manoeuvring; Operations and Park and Shut-down.

The candidate should be assessed as to whether he is "Competent" ("C") or "Not Yet Competent" ("NYC") through practical performance of all the competency elements.

CE 1 Prepare to carry out boom lift operations

- 1.1 Identify hazards and safe routes to be taken for boom lift operations
- 1.2 Observe and apply safe work practices when preparing to operate boom lift
- 1.3 Prepare work area for safe operation of the boom lift
- 1.4 Use appropriate personal protective equipment in accordance with organisational procedures
- 1.5 Perform pre-use inspection on boom lift, its associated components and safety devices/signage/labels
- 1.6 Perform function checks on boom lift
- 1.7 Report all damage and defects according to procedures, and take appropriate action as per organisational procedures

CE 2 Carry out boom lift operations

- 2.1 Apply safe work practices when carrying out boom lift operations
- 2.2 Manoeuvre boom lift according to operator manual
- 2.3 Travel the identified route to, from or within the work area
- 2.4 Operate boom lift in stable position according to operator manual

CE 3 Conduct post operation for boom lift

- 3.1 Park and Shut down of boom lift
- 3.2 Carry out routine post-operational boom lift checks and maintenance according to safe work procedures
- 3.3 Report all damage and defects according to safe work procedures, and appropriate action is taken.

TPs are to take note that any of the following will result in **immediate failure** and an 'NYC' in the Practical Performance assessment:

- Candidate fails to listen to safety instructions
- Hitting any objects while operating the equipment
- Mounting a curb while operating the equipment
- Any dangerous act while operating the equipment which causes danger to himself or other

4.5 Briefing to Candidate

The briefing to candidate is to explain the purpose and context of assessment so as to ensure that there are no surprises during the conduct of assessment

The briefing to candidate shall include the following:

- The assessment requirements and process, including clear instructions on each of the assessment adopted
- Trainees' rights & the appeal process for assessment outcome

During the briefing, assessors are to establish any special needs and how such needs will be addressed during the assessment.

Assessor must seek feedback and ascertain candidates' understanding of the assessment requirements before the commencement of the assessment

4.6 Recording and Reporting of Assessment Outcome

All assessment outcomes must be accurately recorded in the assessment summary record form.

Assessment outcome will be communicated to the candidate at the end of the assessment.

The TP shall maintain a record of the assessment results for 2 years for audit purposes.

4.7 Issuance of Safety Pass and the Certificate of Successful Completion

The Safety Pass/Card is to be issued, in accordance with the format shown in **Annex C**, to candidate who is assessed "Competent" in this Competency Unit.

Certificate of Successful Completion is to be issued, in accordance with the format shown in **Annex D**, to candidate who is assessed "Competent" in this Competency Unit.

The issuance of the "Certificate of Successful Completion" is optional for TPs who have already issued the Safety Pass to candidate who is assessed "Competent" in this Competency Unit.

The validity period for Operate Boom Lift should be 5 years

CHAPTER 5: ADULT EDUCATOR REQUIREMENTS

A developer / trainer / facilitator / assessor for this module shall possess all of the following:

5.1 Trainer/Facilitator and Assessor Requirements

- Domain qualification: The trainer/facilitator must be a domain subject matter expert, possess a WSQ-Advanced Certificate in Workplace Safety & Health (WSH Professional Level B) or equivalent; Work At Height Course for Supervisors or equivalent; MOM Boom Lift Operator Course or equivalent.
- Domain work experience: The trainer/facilitator must possess a minimum of five years' relevant experience, including operation of the equipment.
- WSQ trainer/facilitator pedagogic requirement: The trainer/facilitator must have attained a WSQ Advanced Certificate in Training & Assessment (ACTA) or Advanced Certificate in Learning and Performance (ACLPL) or Diploma in Adult Continuing Education (DACE) or Diploma in Design and Development of Learning for Performance (DDDLPL).
- WSQ trainer/facilitator experience: The trainer/facilitator should preferably possess a minimum of one year of training experience in WSQ-related courses.
- All trainers/adult educators are required to attain 10 hours (minimum) annually by attending Continuing Professional and Development (CPD) courses conducted by appointed training providers. For more details, refer to CPD Programme for WSH Trainers in WSH Council website (www.wshc.sg)
- The trainer for the course is not permitted to be the assessor for the same course learners during the assessment.

5.2 Developer Requirements

- Domain qualification: The developer must be a domain subject matter expert possess a WSQ-Advanced Certificate in Workplace Safety & Health (WSH Professional Level B) or equivalent; Work At Height Course for Supervisors or equivalent, and MOM Boom Lift Operator Course or equivalent.
- Domain work experience: The trainer/facilitator must possess a minimum of five years' relevant experience.
- WSQ curriculum developer pedagogic requirement: The developer must have attained a WSQ Advanced Certificate in Training and Assessment (ACTA) or its equivalent. With effect from 1 October 2015, a WSQ Diploma in Adult and

Continuing Education (DACE) or Diploma in Design and Development of Learning for Performance (DDDLP) is required.

- WSQ curriculum developer experience: The developer should preferably possess a minimum of one year experience in WSQ-related courseware development.
- A qualified and experienced developer can work with a Subject Matter Expert with relevant domain qualifications and work experience in developing a courseware.

CHAPTER 6: SUMMARY OF MANDATORY SECTIONS / INFORMATION

This chapter summarizes all the mandatory sections and required information, for easy reference. TPs / Adult Educators are expected to note the information indicated in the following Sections and to comply with the stated requirements, where appropriate:

<u>Section</u>	<u>Title</u>
2.6	Recommended Learning Hours (RLH)
2.7	Recommended Class Size and Trainer-Trainee Ratio
2.8	Recommended Assessor to Candidate Ratio
4.1	Content Coverage On percentage of items under Range and Application and Evidence Sources to be covered
4.5	Learning Strategies and Methods - Industry Requirements
5.1	Assessment Strategies - Industry Requirements
6.1	Trainer / Assessor Requirements
6.2	Developer Requirements

CHAPTER 7: RESOURCE INFORMATION

This chapter indicates the various literatures, journals, articles and researched information on the “Operate Boom Lift” competency unit.

Related WSH legislations, industrial code of practice and other references (list is not exhaustive)

- Workplace Safety and Health (WSH) Act and subsidiary legislations
- Code of Practice for Working Safely At Height

PART II

WSQ & Supporting Resources

Glossary

Training Provider	A Training Provider (TP) is a training organisation accredited under the WSQ to offer training programmes and assessment services leading to WSQ certification
Assessment	A systematic process of collecting evidence and making judgements as to whether an individual has achieved a certain level of competency.
Assessment Criteria and marking scheme	Provides the context and conditions, under which the assessment will be conducted, what evidence the assessor must collect and the grading criteria used.
Assessment method	The process or technique used to gather evidence. (Bresciano & Fackler, 2005)
Assessment plan	A document which outlines when the evaluation will take place and how it will be conducted. An assessment plan includes the " programme mission or course/activity purpose, goals as appropriate, in/ended outcomes, methods for gathering, analysing data, and interpreting data for providing evidence to inform decision making." (Bresciano & Fackler, 2005)
Assessment process	The series of steps which a candidate undertakes within the enrolment, assessment, recording and reporting cycle of assessment.
Assessment tool	An instrument or resource used in association with a given assessment method. It may include a questionnaire, test paper, interview questions, structured report template and
Assumed skills and knowledge	Assumed skills and knowledge are what learners ought to have and are assumed to have before they attend the training programme.
Certification Body	A Certification Body (CB) is an organization accredited by the Singapore Accreditation Council (SAC) to assess and certify a WSH Training Provider's compliance to ISO 29993:2017 and MOM/WSH Council requirements.
Competency	A competency is a measurable set of knowledge, skills and attitudes that drives and individual's performance to perform at his/her job effectively.
Competency category	A competency category refers to broad occupational or industry area or function, competency units (CU) that are inter-related are grouped by competency categories.
Competency elements	A competency element is the sub-division of a CU. Competency elements encompasses performance criteria, underpinning knowledge, range and context as well as evidence sources.
Competency level	The competency level reflects the level of complexity and depth of learning required by the competencies in the standard. It is outlined in the competency standards.
Competency Map (CM)	A document that captures the type of competencies needed in an industry. The competencies are expressed as CU and these are grouped into competency categories and pegged to occupational levels.

Competency Standards (CS)	A competency standard documents expected work performance outcomes, expected level of performance, knowledge that supports the delivery of work performance outcomes and work contexts under which the work performance outcomes are to be delivered.
Competency Unit (CU)	A CU describes a particular work role, duty or function, which forms the smallest group of skills, knowledge and abilities set able to be recognized separately for certification. The certification requirements of a CU are detailed in a CS.
Continuing Education and Training (CET)	Continuing Education and Training (CET) refers to educational programmes for adults, usually at the post-secondary level and offered as a part-time or short courses in occupational subject areas. Also see Pre-employment
Credit	A unit of measure assigned to courses or course of equivalent learning.
Curriculum, Training and Assessment Guide (CTAG)	The CTAG is a document that provides training and assessment advice to achieve effective training and assessment leading to WSQ certification of a CU.
Dimensions of competency	The dimensions of competency cover all aspects of work performance. The five dimensions of competency are: <ul style="list-style-type: none"> - TASK skills - TASK management skills - Contingency management skills - Job and role management skills - Transfer skills
Evidence sources	The evidence source section in a CS gives examples of tasks, observations, documents etc that can be used as evidence for assessing the particular competency element or list of performance statements.
Learning outcomes	The work performance that a learner should be able to demonstrate as a result of having undertaken training and/or assessment. It must be measurable, clear and
Performance criteria / statements (PC / PS)	Performance criteria or performance statements refer to the expected work performance or behaviours and expected level of performance to be demonstrated by a competent
Pre-employment Training (PET)	Pre-employment Training (PET) refers to educational programmes that prepare individuals for entry into the workforce. This includes secondary, pre-university, polytechnic and university education.
Qualifications	Qualifications are formal certifications issued by a relevant approved body, in recognition that an individual has achieved learning outcomes identified by the industry.
Range and context	Range and context provides the type of situations under which the performance criteria / statements apply. Range and context cover items that are achievable or to be performed across by competent individuals, such as types of equipment, products and services, types of customers.
Underpinning knowledge	Underpinning knowledge states the knowledge that an individual needs to know and understand in order for him/her to perform competently at work.

Version Control

Version	Amendment Date	Changes	Author	Approved By
1.0	21 April 2015	First Release	WDA	WDA
2.0	22 Jan 2022	Update	WSH Council	WSH Council
3.0	3 Jan 2023	Update	WSH Council	WSH Council
4.0	1 Sep 2023	Update	WSH Council	WSH Council

Annex A

Instructional Strategy Selection Chart

Instructional Strategy	Cognitive Domain (Bloom, 1956)	Affective Domain (Krathwohl, Bloom, & Masia, 1973)	Psychomotor Domain (Simpson, 1972)
Lecture, reading, audio/visual, demonstration, or guided observations, question and answer period	1. Knowledge	1. Receiving phenomena	1. Perception 2. Set
Discussions, multimedia CBT, Socratic didactic method, reflection. Activities such as surveys, role playing, case studies, fishbowls, etc.	2. Comprehension 3. Application	2. Responding to phenomena	3. Guided response 4. Mechanism
On-the-Job-Training (OJT), practice by doing (some direction or coaching is required), simulated job settings (to include CBT simulations)	4. Analysis	3. Valuing	5. Complex response
Use in real situations. Also may be trained by using several high level activities coupled with OJT.	5. Synthesis	4. Organize values into priorities	6. Adaptation
Normally developed on own (informal learning) through self-study or learning through mistakes, but mentoring and coaching can speed the process.	6. Evaluation	5. Internalizing values	7. Origination

The chart does not cover all possibilities, but most activities should fit in. For example, self-study could fall under reading, audio visual, and/or activities, depending upon the type of program you design.

(extracted from <http://www.nwlink.com/~donclark/hrd/strategy.html>, accessed 19 Sep 2010)

Annex B

Cross Reference Matrix for WSQ Competency Unit

CE – PC	UK & Range & Context	Assessment Criteria (State what is expected and required from the candidate)	Assessment Methods			Assessment Instruments/Tools	Reference		
			Oral Questioning	Written Assessment	Practical Performance		Trainer's Guide	Learner's Guide	Slides
CE1 Identify the needs and expectations of customer populations to develop customer profiles.									
PC 1.1	UK	Tell Me (Knowledge)							
Research the organization's customers in accordance with the organization's policies and procedures for collecting, accessing and managing customer information.	<p>1.2 techniques for interpreting information on customers;</p> <p>Range & Context Research techniques may include:</p> <ul style="list-style-type: none"> ○ interviews; ○ observations; ○ surveys;. <p>Research may focus on areas which may include:</p> <ul style="list-style-type: none"> ○ individual influences on customer behavior; 	<ul style="list-style-type: none"> ○ interviews; ○ observations; ○ surveys; ○ questionnaires; ○ database analysis; ○ interpreting third party research output; and ○ Use of business excellence tools such as Voice of Customer, Quality Function Deployment (QFD). 	X			AA01OQ Q1, Q2	10 -	9 -	10 -
							28	32	62

Sample Format for reference to develop the Cross Reference Matrix

	<ul style="list-style-type: none"> ○ social influences on customer behavior; & ○ Lifestyle influences on customer behavior. <p>Customers may include:</p> <ul style="list-style-type: none"> ○ internal or external customers; ○ new or repeat customers; <p>Customer information may include:</p> <ul style="list-style-type: none"> ○ results of customer satisfaction surveys; ○ statistical information from]. <p>For the purposes of research, customer information might be sorted into discrete groups which may include:</p> <ul style="list-style-type: none"> ○ individuals; ○ businesses; ○ households; ○ geographically based groups; ○ product specific customers; and ○ Customer groups characterized by age, gender, cultural factors or purchasing power. 	<p>Identify the needs and expectations of your customers.</p> <p>Show Me (Process) Research the demography of your customers by:</p> <ul style="list-style-type: none"> ○ Focusing on customer behavior. ○ Defining your customers ○ Sourcing customer information ○ Sorting customer information into discrete (demographic) groups <p>Show me (Product) Customer intelligence report identifying the needs and expectations of customer populations.</p>			X	AA01PP R1			
				X		AA05 Q1A			

I. Overview of Assessment for the Competency Unit

Competency unit:

Competency elements:

Purpose of assessment

Context of assessment	Details
Organisational requirement	
Operational environment	
Industry requirement	
Legal requirements	

Assessment venue:

Description of candidates: (at least four characteristics)

Special needs of candidates (at least one special need)

Any other special requirements :(at least one special requirement)

Stakeholders in AP development team and their role:

Title	Name	Support in developing assessment plan

Competency Elements	Methods

Method	Duration	Ratio of assessor to candidate	Remarks
Total		--	--

II. Assessment Matrix

Mapping of Assessment Methods with Performance Requirements

Performance Criteria (PC)	Types of Evidence	Assessment Methods (Forms)	Assessment Tools
CE1			
PC1.1	Process and Product	Role Play (Direct)	
PC1.2			

Mapping of Assessment Methods with Knowledge Requirements

Underpinning Knowledge	Types of Evidence	Assessment Methods (Forms)	Assessment Tools
UK1			
UK...			
UK			

OR

II. Evidence Gathering Plan

Competency Element (CE), Performance Criteria (PC), Underpinning Knowledge (UK)	Types/Forms of Evidence	Assessment methods		Assessment tools
		PP	OQ	
PC1.1 UK				
PC2.1 UK				
PC1.3 UK				

III. Assessment Specifications for Practical Performance

SPECIFICATIONS	GUIDELINES
Performance criteria and/or underpinning knowledge covered	<ul style="list-style-type: none"> ■ XXXXX <ul style="list-style-type: none"> ➤ What will this assessment method cover? PC/PS/UK
Duration	<ul style="list-style-type: none"> ■ XXXXX <ul style="list-style-type: none"> ➤ How long will it take?
Venue	<ul style="list-style-type: none"> ■ XXXXX <ul style="list-style-type: none"> ➤ Where will it take place?
Set-up	<ul style="list-style-type: none"> ■ XXXXX <ul style="list-style-type: none"> ➤ What resources are required? ➤ How should the assessment site be arranged?
Assessment Task/Activity/Brief	<ul style="list-style-type: none"> ■ XXXXXX <ul style="list-style-type: none"> ➤ What is the candidate expected to do to demonstrate competence?
Pre-assessment instructions for assessors	<ul style="list-style-type: none"> ■ XXXXXXXX <ul style="list-style-type: none"> ➤ What does the assessor need to know and do beforehand?
Pre-assessment instructions for candidates	<ul style="list-style-type: none"> ■ XXXXXXXX <ul style="list-style-type: none"> ➤ What does the candidate need to know and do beforehand?
Process of conducting assessment	<ul style="list-style-type: none"> ■ XXXXXXXX <ul style="list-style-type: none"> ➤ How will the assessor carry out the assessment on the day of assessment? ➤ What will the candidate go through?

SPECIFICATIONS	GUIDELINES
<p>Managing limitations of evidence</p>	<ul style="list-style-type: none"> ■ XXXXXXXX <ul style="list-style-type: none"> ➤ How should limitations of the evidence gathering process be handled? ➤ What exceptions might there be during the evidence gathering process? To what extent can assessors be flexible? ➤ Who should assessors refer to when the evidence gathered do not fulfill the rules of evidence?
<p>Recording Assessment Result:</p>	<ul style="list-style-type: none"> ■ XXXXXXXX <ul style="list-style-type: none"> ➤ How should assessment results be handled? ➤ How will the assessment decision be made?
<p>Feedback</p>	<ul style="list-style-type: none"> ■ XXXXXXXX <ul style="list-style-type: none"> ➤ How should the feedback process be handled?

IV. Assessment Specifications for Oral Questioning

SPECIFICATIONS	GUIDELINES
Performance criteria and/or underpinning knowledge covered	<ul style="list-style-type: none"> ■ XXXXX <ul style="list-style-type: none"> ➢ What will this assessment method cover? PC/PS/UK
Duration	<ul style="list-style-type: none"> ■ XXXXX <ul style="list-style-type: none"> ➢ How long will it take?
Venue	<ul style="list-style-type: none"> ■ XXXXX <ul style="list-style-type: none"> ➢ Where will it take place?
Set-up	<ul style="list-style-type: none"> ■ XXXXX <ul style="list-style-type: none"> ➢ What resources are required? ➢ How should the assessment site be arranged?
Assessment Task/Activity/Brief	<ul style="list-style-type: none"> ■ XXXXXX <ul style="list-style-type: none"> ➢ What is the candidate expected to do to demonstrate competence?
Pre-assessment instructions for assessors	<ul style="list-style-type: none"> ■ XXXXXXXX <ul style="list-style-type: none"> ➢ What does the assessor need to know and do beforehand?
Pre-assessment instructions for candidates	<ul style="list-style-type: none"> ■ XXXXXXXX <ul style="list-style-type: none"> ➢ What does the candidate need to know and do beforehand?
Process of conducting assessment	<ul style="list-style-type: none"> ■ XXXXXXXX <ul style="list-style-type: none"> ➢ How will the assessor carry out the assessment on the day of assessment? ➢ What will the candidate go through?

SPECIFICATIONS	GUIDELINES
Managing limitations of evidence	<ul style="list-style-type: none"> ■ XXXXXXXX <ul style="list-style-type: none"> ➤ How should limitations of the evidence gathering process be handled? ➤ What exceptions might there be during the evidence gathering process? To what extent can assessors be flexible? ➤ Who should assessors refer to when the evidence gathered do not fulfill the rules of evidence?
Recording Assessment Result:	<ul style="list-style-type: none"> ■ XXXXXXXX <ul style="list-style-type: none"> ➤ How should assessment results be handled? ➤ How will the assessment decision be made?
Feedback	<ul style="list-style-type: none"> ■ XXXXXXXX <ul style="list-style-type: none"> ➤ How should the feedback process be handled?

V. Assessment Record for Practical Performance (PP)

Candidate's Name: _____ **End Time :** _____

NRIC Number : _____ **Start Time :** _____

Assessor's Name: _____

COMPETENCY ELEMENT 1:				
PERFORMANCE CHECKLIST				
Performance Criteria/Underpinning Knowledge	Assessment Criteria	Tick		Evidence of 'C' and 'NYC' must be recorded
		C	NYC	
PC 2.1	Candidate is able to show the following: •			
PC 2.2	• •			
PC 2.3				
PC 2.4				
PC 2.5				

VI. Assessment Record for Written Assessment

Candidate's Name: _____ **End Time :** _____

NRIC Number : _____ **Start Time :** _____

Assessor's Name: _____

COMPETENCY ELEMENT 1:				
KNOWLEDGE CHECKLIST				
Underpinning Knowledge	Assessment Criteria	Tick		Evidence of 'C' and 'NYC' must be recorded
		C	NYC	
UK 1.1 ...	<ul style="list-style-type: none"> • Sample Questions..... • Suggested Answers... 			
UK 1.2 ...	<ul style="list-style-type: none"> • Sample Questions..... • Suggested Answers... 			
UK 1.3 ...	<ul style="list-style-type: none"> • Sample Questions..... • Suggested Answers... 			
UK 1.4 ...	<ul style="list-style-type: none"> • Sample Questions..... • Suggested Answers... 			

VII. SUMMARY ASSESSMENT RECORD

Assessment Centre :		
Competency Unit :		
Candidate Name :		
Candidate NRIC No. :		
Assessor Name :		
Assessment Method :	Practical Performance (PP)	Oral Questioning (OQ)
Assessment Date :		
Start Time :		
End Time :		

Summary

Competency Element	Assessment Method		Result
	PP	OQ	

This candidate has been assessed as:

- q COMPETENT
- q NOT YET COMPETENT

Assessor signature: _____

Candidate signature: _____

Feedback on outcome by assessor/feedback by candidate:

In the event of "NYC" result:

- q Candidate does not wish to appeal
- q Candidate wishes to appeal

Candidate signature:

VIII. Assessment Tools Required and other Related Documents

- **Other required Assessment Tools for this assessment plan**
e.g. case studies, role play scenarios, written test papers, logistics checklist

- **Pre-Assessment Briefing Checklist**

- **Appeal Process**

- **Version Control Record**

Version	Amendment Date	Changes	Author
1.0		New release	

- **Other required Assessment Tools for this assessment plan**
e.g. case studies, role play scenarios, written test papers, logistics checklist

CODE OF PRACTICE FOR ASSESSORS

Assessment specialists have developed an international code of ethics and practice (The National Council for Measurement in Education (NCME)). The Code of Practice below is based on the international standards.

1. The differing needs and requirements of the person(s) being assessed, the local enterprise(s) and/or industry are identified and handled with sensitivity.
2. Potential forms of conflict of interest in the assessment process and/or outcomes are identified and appropriate referrals are made, if necessary.
3. All forms of harassment are avoided throughout the planning, conduct, reviewing and reporting of the assessment outcomes.
4. The rights of the candidates (s) are protected during and after the assessment.
5. Personal or interpersonal factors that are not relevant to the assessment of competency must not influence the assessment outcomes.
6. The candidate(s) is made aware of rights and processes of appeal.
7. Evidence that is gathered during the assessment is verified for validity, reliability, authenticity, sufficiency and currency.
8. Assessment decisions are based on available evidence that can be produced and verified by another assessor.
9. Assessments are conducted within the boundaries of the assessment system policies and procedures.
10. Formal agreement is obtained from both the candidate(s) and the assessor that the assessment was carried out in accordance with agreed procedures.
11. Assessment tools, systems, and procedures are consistent with equal opportunity legislation.
12. The candidate(s) is informed of all assessment reporting processes prior to the assessment.
13. The candidate(s) is informed of all known potential consequences of decisions arising from an assessment, prior to the assessment.
14. Confidentiality is maintained regarding assessment result.

15. Results are only released with the written permission of the candidate(s).
16. The assessment results are used consistently with the purposes explained to the candidate.
17. Self-assessments are periodically conducted to ensure current competencies against the assessment and Workplace Training Competency Standards.
18. Professional development opportunities are identified and sought.
19. Opportunities for networking amongst assessors are created and maintained.
20. Opportunities are created for technical assistance in planning, conducting and reviewing assessment procedures and outcomes.

Annex C

Format of Safety Pass

“Safety Pass/Card” is to be issued, in accordance with the format shown in Annex C. Safety Pass and/or Certificate of Course Completion is to be issued, to candidate who is assessed “Competent” in this Competency Unit.

Do note that the reference below is intended only to present the format of the pass and should not be used as an actual template for direct printing.

Guidelines for the credit card size pass for MOM WSH courses by TPs

3 3/8 × 2 1/8 inch (85.60 × 53.98 mm)



Font Type: Arial
Font size (Course title): Recommended 8pt or larger
Font size (Others): Recommended 6pt or larger
Photo size: 3.1cm X 2.4cm

- Pass should contain no less than the information depicted in the guide
- TP may use their own reference format for serial number
- Course Title should be the title as indicated in the WSQ Framework(CS/CTAG). The Technical Skills and Competency (TSC) Code and Title, should also be printed in parentheses () aligned to the title reflected in either the Competency Standards (CS) or TSC. However, it is not required to print the TSC Course name if it is the same as the SC/CTAG title
- ID should be FIN, NRIC Passport Number or any unique official identifier
- Course Venue should reflect address of training centre (not business office, etc) which pass holder attended
- Trainer signature should reflect the trainer that conducted the course

Back view


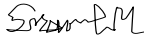
1. Use of card is governed by terms and conditions of < Name of Training Provider>
2. < Name of Training Providers> is a SkillsFuture Singapore Agency's Training Provider at the date of issuance of the pass
3. This card is not transferrable
4. The course is conducted @ < Course venue>
5. Holder of the card has been certified competent in the <Course Title> on the issued date as indicated in front.
6. This card will expire <xx> years from the date of issue.
7. This card is the property of < Name of Training Provider> and must be returned on request.
8. Card shall be retained if it has been tampered with, misused or replaced.
9. This card is issued by < Name of Training Provider>. If found, please return to < Name of Training Provider>. at <Address of < Name of Training Provider>..
10. For enquiries, please contact < Name of Training Provider>. > at <hotline>

Font Type: Arial
Font size : Recommended 6pt or larger

Annex D

Certificate of Successful Completion

"Certificate of Successful Completion" is to be issued, in accordance with the format shown in Annex D. This is in addition to the Statement of Attainment (SOA) issued by SSG for WSQ courses.

3 inch 10pt 20pt 10pt 16pt 12pt 10pt 16pt 10pt 10pt 12pt 10pt 10pt 1 inch	<p><Official Logo/Name of TP></p> <p>CERTIFICATE OF SUCCESSFUL COMPLETION</p> <div style="border: 1px solid black; padding: 2px; width: fit-content;"><p>Font type: Arial Font size: Recommended as stipulated Header/footer space: Recommended as stipulated</p></div> <p>is awarded to</p> <p><Name of Trainee> < ID ></p> <p>for successful completion of the <Course Title> <TSC Title/Code></p> <p>< Name of TP > <small><TP approved by SkillsFuture Singapore></small> @ < Training venue > from <Training Date/s></p> <p>Validity: < <u>x</u> Years from last date of course/ NA></p> <div style="display: flex; justify-content: space-between;"><div style="text-align: center;"> Genius Man Director / Principal Training Division <Name of TP> / Company Stamp</div><div style="text-align: center;"> Smart Man Trainer Training Division <Name of TP></div></div> <p><small><Name of T. P> UEN: <XXX> <Office Address> Tel: <xxx> Fax: <xxx> Website: <xxx> Email: <xxx></small></p>	<p>Serial Number: <xxx></p>
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- Certificate should contain no less than the information depicted in the guide
- TP may use their own reference format for serial number
- ID should be FIN, NRIC Passport Number or any unique official identifier
- For TP Course, Course Title should be the corresponding title as indicated in WSQ System Framework(CS/CTAG). The Technical Skills and Competency (TSC) Code and Title should be printed in parentheses () aligned to the title reflected in either the Competency Standards (CS) or TSC. However, it is not required to print the TSC course name if it is the same as the CS/CTAG Title
- Course Venue should reflect address of training centre (not business office, etc) which pass holder attended
- Certificate should indicate that <<Name of TP>> is a Training Provider (TP) approved by SkillsFuture Singapore for <<Course Title of corresponding course>>
- Trainer signature should reflect the trainer that conducted the course
- Management of safety certificate should be in accordance to the requirements under TP scheme