

# **CURRICULUM, TRAINING AND ASSESSMENT GUIDE**

|                  |                                      |
|------------------|--------------------------------------|
| Competency Unit  | : Perform Rigger and Signalman Tasks |
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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 Perform Rigger and Signalman Tasks 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 "Perform Rigger and Signalman Tasks" programme developers.

**Part II** - Provides a broad spectrum of information about WSQ and related components relevant to the "Perform Rigger and Signalman Tasks" programme.

# **PART I**

## **WSQ**

### **Perform Rigger and Signalman Task**

# CHAPTER 1: GENERIC MANUFACTURING SKILL AND WSQ PERFORM RIGGER AND SIGNALMAN TASKS

## 1.1 Overview

The Generic Manufacturing Skills (GMS) WSQ framework aims to raise the professionalism of the manufacturing industry by equipping the workforce with essential generic and portable skills to adapt and be resilient to challenges in the dynamic working environment. It allows employers to access a pipeline of skilled workforce, which provides a competitive advantage and enables organisation success. It also equips workers with cross-cutting generic manufacturing skills to effectively contribute and progress within an organisation as well as promote mobility across manufacturing companies

## 1.2 Key Features of Perform Rigger and Signalman Tasks WSQ Competency Standard

The Competency Elements covered are:

|      |   |
|------|---|
| CE 1 | Prepare to perform rigger and signalman tasks |
| CE 2 | Perform rigger and signalman tasks            |
| CE 3 | Reinstate rigger and signalman work area      |

### Why this Course?

The “Perform Rigger and Signalman Task” course is aimed at providing individuals with the knowledge and skills to give correct and clear signals to guide the crane operator in the manoeuvre of a load safely to its destination.

The WSH (Operations of Cranes) Regulations 2011 stipulates that:

### Appointment and duties of a riggerman

- (1) It shall be the duty of the responsible person to appoint a rigger before any lifting operation involving the use of any mobile crane or tower crane is carried out in the workplace by a crane operator.
- (2) It shall be the duty of the responsible person —
  - (a) not to appoint any person as a rigger in a workplace unless the person has

- successfully completed a training course acceptable to the Commissioner to equip him to be a rigger; and
    - (b) to ensure that the rigger who is appointed is attired in such a way as would distinctively identify him as a rigger.
  - (3) No person shall rig up loads for any lifting operation by a mobile crane or towercrane unless he is a rigger appointed
  - (4) It shall be the duty of a rigger appointed to —
    - (a) check the slings to be used for slinging the loads to ensure that the slings are of good construction, sound and suitable material, adequate strength and free from patent defect;
    - (b) ensure that an adequate number of legs of the sling are used and that the slinging angle is correct so as to prevent the sling from being overloaded during the hoisting;
    - (c) ascertain the weight of the load which is to be lifted and inform the craneoperator of the weight of the load;
    - (d) ensure that only proper lifting gears are used in conjunction with the sling;
    - (e) ensure that the load to be lifted is secure, stable and balanced;
    - (f) ensure that any loose load (which includes any stone, brick or tile) is placed in a receptacle to prevent the load or part thereof from falling during the lifting operation;
    - g) place adequate padding at the edges of the load which come in contact with the sling so as to prevent the sling from being damaged; and
    - (h) report any defect in the lifting gear to the lifting supervisor.

### **Appointment and duties of a signalman**

- (1) It shall be the duty of the responsible person to appoint a signalman before any lifting operation involving the use of any mobile crane or tower crane is carried out in a workplace by a crane operator.
- (2) It shall be the duty of the responsible person —
  - (a) not to appoint any person as a signalman in a workplace unless the person has successfully completed a training course acceptable to the Commissioner to equip him to be a signalman; and
  - (b) to ensure that the signalman who is appointed is attired in such a way as would distinctively identify him as a signalman.
- (3) No person shall give signal to the crane operator unless he is a signalman appointed.
- (4) It shall be the duty of the signalman appointed to —
  - (a) ensure or verify with the rigger that the load is properly rigged up before he gives a clear signal to the crane operator to lift the load; and
  - (b) give correct and clear signals to guide the crane operator in the manoeuvre of the load safely to its destination.



### 1.3 Importation of Elective Credits from Other WSQ Frameworks or Recognised Equivalents

Not Applicable

### 1.4 Target Audience

The "Perform Rigger and Signalman Tasks" Course is suitable for aspiring and experienced individuals assigned as Rigger and Signalman 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 2
- Be able to read and write English at a proficiency level equivalent to ES level 2
- Be able to manipulate numbers at a proficiency level equivalent to ES level 2; and
- Be medically fit

### 1.5 Recommended Learning Hours (RLH)

- RLH = 16 training hours + 1.5 assessment hours
- The RLH takes into account the time required for direct learning activities. Direct learning is broadly defined as trainer/assessor-directed & involves purposeful instructions given to trainees to complete as part of instructional design of a structured facilitated training & assessment programme.

|                      | <b>Duration</b> | <b>Remarks</b> |
|----------------------|-----------------|----------------|
| Facilitated Learning | 16 hours        |                |
| Assessment           | 1.5 hours       |                |

- Facilitated training and assessment
- E-learning<sup>1</sup> and assessment

### 1.6 Maximum Class Size and Facilitator-Learner Ratio

- Recommended Class Size - 18 and Trainer/Facilitator-Learner ratio: 1:18
- Recommended Trainer/Facilitator- Learner ratio for practical sessions: 1:2
- Attendance Requirements: 100% for classroom and practical sessions

### 1.7 Maximum Assessor to Candidate Ratio

- Written Assessment:1 : 18 (Class size)
- Practical Performance: 1 : 1

---

<sup>1</sup> For E-learning to be considered as “directed learning”, the learning progress of trainees should be tracked via audit trail, progress reports, etc

# 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.

- Risks related to rigger and signalman tasks
- Types of cranes, components and lifting gear
- Legislations relating to rigger and signalman tasks
- Roles and responsibilities of the rigger and signalman in pre-lifting, lifting and postlifting operations
- Safe Working Loads (SWL) and weight estimation of load
- Method to determine Centre of Gravity for regular and irregular loads
- Checklists for pre-lift inspection of crane, lifting gear and accessories
- Types of wire rope construction, slings, end fittings & connections and wire rope clips
- Voice procedures
- Method of good housekeeping
- Hazard control measures in rigger and signalman work site
- Slinging methods
- Sling angle effects
- Guidelines to rigging
- Precautions during slinging
- Lifting plan requirements
- Permit to work system
- Rigging techniques
- Method to prepare timber wedges or slippers
- 3-step lifting , 3-step lowering method and safe work procedures
- Hazards related to lifting operations
- Common crane accidents
- Emergency response procedures for lifting incidents and emergencies
- 12 standard hand signals
- 16 standard voice signals

- Good housekeeping practices
- 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 perform rigger and signalman tasks**

- 1.1 Participate in risk assessment and lifting plan briefing for lifting operations as a rigger
- 1.2 Identify risks of lifting operation related to rigger and signalman at work site
- 1.3 Ascertain weight of loads
- 1.4 Determine the Centre of Gravity of regular and irregular loads
- 1.5 Conduct pre-lift inspection of crane, lifting gear and accessories
- 1.6 Select appropriate rigging equipment, lifting gears and accessories for lifting load
- 1.7 Check the serviceability of communication equipment and radio
- 1.8 Set up communications equipment and radio channels for safe lifting operations
- 1.9 Practice good housekeeping of communication equipment, crane lifting gear and accessories
- 1.10 Report any abnormalities/ defects in the crane, lifting gear, accessories and communication equipment according to standard operating procedures

**CE 2 Perform rigger and signalman tasks**

- 2.1 Observe and apply safety practices and hazard work site when carrying out rigger and signalman tasks
- 2.2 Identify hazards related to lifting operations
- 2.3 Use of PPE and tag line to carry out rigger and signalman tasks
- 2.4 Select and use appropriate slinging method, rigging equipment, lifting gears and accessories on load
- 2.5 Check to ensure adequate number of lifting gears to lift load
- 2.6 Apply rigging techniques to load
- 2.7 Verify that load is properly rigged
- 2.8 Apply 3-step lifting and lowering method
- 2.9 Direct load to destination with safe lifting techniques
- 2.10 Communicate lifting instructions using standard hand and voice signals
- 2.11 Check for blind spots and estimate clearance of swing path

**CE 3 Reinstate rigger and signalman work area**

- 3.1 Dismantle rigging equipment, lifting gears and accessories
- 3.2 Carry out housekeeping of equipment and work area
- 3.3 Carry out post-operational checks on communication equipment, crane lifting gear and accessories
- 3.4 Report any damage and defects on communication equipment, crane, lifting gear and accessories

# CHAPTER 3: KEY DELIVERY ADVICE

## 3.1 Content Coverage

In developing the programme for any “Perform Rigger and Signaller Tasks” 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 “Perform Rigger and Signaller Tasks” 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 “Perform Rigger and Signaller Tasks” 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 “Perform Rigger and Signaller Tasks” 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 “Perform Rigger and Signaller Tasks” programme development.*

## 3.2 Sequence of Coverage

The following sequence is recommended:

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

Note: The Risk Management process should consider the management of infectious disease outbreak, employees' health (including mental well-being) and terrorist threats. Training Provider should take reference from the 3rd revision of the Code of Practice on Risk Management.

## 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](http://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 may be delivered in a combination of simulated environment and off-the-job.

- Content relating to underpinning knowledge and principles may be delivered off-the-job. Off-the-job delivery can be face-to-face in the classroom in a training organisation, or at a workplace venue. Classroom delivery should be interactive and learner-centred, using a range of activities and instructional methods.
- The practical aspects of the Competency Unit, however, should be delivered in

simulated workplace settings.

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   |
|--|---|---|
| Underpinning Knowledge                     | Lectures, discussions, case studies, problem- based learning, videos, e-learningresources | The knowledge component of this course is primarily focused on the requirements of the WSH Act, WSH (Operation of Cranes) Regulations, WSH (Risk Management) Regulations and Codes of Practices and Guidelines concerning lifting operations. There is also some key points Roles and responsibilities of the rigger and signalman in pre-lifting, lifting and post lifting operations. These can be delivered in a classroom using models and slides.  |
| Competency Elements / Performance Criteria | Lectures, demonstrations, practice  | The demonstration and practice may include the following key skills: <ul style="list-style-type: none"> <li>• <b>Prepare to perform rigger and signalman tasks</b></li> <li>• <b>Perform rigger and signalman tasks</b></li> <li>• <b>Reinstate rigger and signalman work area</b></li> </ul>   |
| Attributes                                 | Discussions, modelling, sharing   | A competent Rigger and Signalman should be able to identify and mitigate potential risk pertaining to his area of work. He is required to exercise his professionalism with a sense of situational awareness"at any workplace. At all times he must: <ul style="list-style-type: none"> <li>• Be aware of all movements within the zone of the lifting operations</li> <li>• Keep an eye constantly on the Centre of Gravity of the load</li> <li>• Be quick to alert the crane operator and lifting supervisor of any hazard or danger.</li> </ul> |

### **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 safe use of cranes.

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 lifting machines
- Lifting machines operation manual and load chart
- Case studies relating to lifting operation accidents involving lifting machines
- Models of different types of lifting machines
- Training videos
- PPE

- Others

### **3.3.3 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 course<sup>1</sup>; 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.

### **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 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 Rigger and Signalman tasks 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 mobile crane or an overhead crane or A-frame crane no less than 1-ton safe working load (SWL) certified by Authorised Examiner (AE) and properly maintained

The crane must be able to lift at least 5 types of loads, comprising 3 standard loads of at least 150kg, to a height of no less than 50 cm above ground and direct the loads to another location that is no less than 3 metres away

TPs should provide a selection of rigging accessories, such as slings, shackles, chokers and other rigging accessories to allow trainees adequate exposure to the range of rigging equipment in their appropriate industry.

A briefing should be conducted before each practical session on the expected role(s) of the trainees to ensure safe lifting 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.

Unless prior approval has been granted by the CB, which had certified its WSH courses, each LSP shall maintain and conduct its WSH course at its primary Training Venue. In addition, the LSP shall ensure that the following are not shared with any other LSP:

- (a) their approved Training Venue/s; and
- (b) Any other equipment or loads, which are used for the conduct of the WSH course.

In the event, where the LSP wishes to conduct its WSH theory course(s) at a venue, other than the approved Training Venue, the LSP 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 LSP 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 requirement stated above shall apply to a LSP for single and multiple usage.

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

- a) All training and assessment records are kept by the LSP, 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 sub-paragraph 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 LSP or WSH approved training provider at any time.

The LSP 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 above Paragraph shall not apply to LSP who is applying for a once –off use of the theory training premises.



The LSP 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 LSP shall comply with all relevant legislations including but not limited to legislations involving land use, building, fire and safety.

### **3.3.6 Standard Loads**

TPs are required to prepare at least five standard types of loads to be made available for the practical training. These include:

#### Mandatory (to be set up with weight of at least 150kg each)

- Metal Scaffold frame
- Steel Plates
- Pipes made of steel, iron or L shaped in bundles or otherwise

#### Others

- Skip
- Valve
- Motor
- Propeller
- Oil drum
- Pallets
- Concrete beams
- Concrete buckets
- Bundle of pipes
- Wire mesh
- Irregular shaped load (e.g. L-shape slab/pipe, tree trunk/branch)

# 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 in each “Perform Rigger and Signalman Tasks” competency unit.

|                            |
|----------------------------|
| Written Assessment / MCQ   |
| Practical Performance / OQ |

### Industry Requirements

Candidates must pass both the WA and PP to be considered to have successfully completed the “Perform Rigger and Signalman Tasks” 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 “Perform Rigger and Signalman Tasks” qualifies to perform the duty of a rigger or signalman under the Workplace Safety and Health (Operation of Cranes) Regulations.

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.

## 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 Rigger and Signalman upon successful completion the "Perform Rigger and Signalman tasks" Course. TPs are required to prepare an assessment plan for the course (refer Annex C 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 "Perform Rigger and Signalman Tasks".

| Method                | Duration |          |
|-----------------------|----------|----------|
| Written Assessment    | √        | 1 hour   |
| Practical Performance | √        | 0.5 hour |

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 1 hour. 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 must comprise 40 questions, with a 60% passing mark.

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.

#### **4.4.1.2 Practical Performance (PP)**

The PP comprises assessment on rigging of at least two different types of loads from the standard loads in paragraph 4.3.4. Candidates will also be assessed on the use of 16 standard voice signals and 12 standard hand signals. Candidates will also be assessed on hazard identification and risk assessment.

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 perform rigger and signalman tasks**

- 1.1 Participate in risk assessment and lifting plan briefing for lifting operations as a rigger
- 1.2 Identify risks of lifting operation related to rigger and signalman at work site
- 1.3 Ascertain weight of loads
- 1.4 Determine the Centre of Gravity of regular and irregular loads
- 1.5 Conduct pre-lift inspection of crane, lifting gear and accessories
- 1.6 Select appropriate rigging equipment, lifting gears and accessories for
- 1.7 Check the serviceability of communication equipment and radio
- 1.8 Set up communications equipment and radio channels for safe lifting operations
- 1.9 Practise good housekeeping of communication equipment, crane lifting gear and accessories
- 1.10 Report any abnormalities/ defects in the crane, lifting gear, accessories and communication equipment according to standard operating procedures

**CE 2 Perform rigger and signalman tasks**

- 2.1 Observe and apply safety practices and hazard work site when carrying out rigger and signalman tasks
- 2.2 Identify hazards related to lifting operations
- 2.3 Use of PPE and tag line to carry out rigger and signalman tasks
- 2.4 Select and use appropriate slinging method, rigging equipment, lifting gears and accessories on load
- 2.5 Check to ensure adequate number of lifting gears to lift load
- 2.6 Apply rigging techniques to load
- 2.7 Verify that load is properly rigged
- 2.8 Apply 3-step lifting and lowering method
- 2.9 Direct load to destination with safe lifting techniques
- 2.10 Communicate lifting instructions using standard hand and voice signals
- 2.11 Check for blind spots and estimate clearance of swing path

**CE 3 Reinstall rigger and signalman work area**

- 3.1 Dismantle rigging equipment, lifting gears and accessories
- 3.2 Carry out housekeeping of equipment and work area
- 3.3 Carry out post-operational checks on communication equipment, crane lifting gear and accessories
- 3.4 Report any damage and defects on communication equipment, crane, lifting gear and accessories

## 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"

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

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

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



# 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; AND Lifting Supervisor Safety Course or WSQ-Supervise Safe Lifting Operations certificate
- Domain work experience: The trainer/facilitator should possess a minimum of five years' experience as a supervisor/foreman, safety personnel in lifting operations.
- WSQ trainer/facilitator pedagogic requirement: The trainer/facilitator must have attained a WSQ Advanced Certificate in Training & Assessment (ACTA) or equivalent qualification in competency-based training and assessment or Advanced Certificate in Learning and Performance (ACLP) or Diploma in Adult Continuing Education (DACE) or Diploma in Design and Development of Learning for Performance (DDDLP)
- 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 Train-the-Trainer (T<sup>3</sup>) Programme in WSH Council website ([www.wshc.sg](http://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 trainer/facilitator must be a domain subject matter expert possess a WSQ-Advanced Certificate in Workplace Safety & Health (WSH Professional Level B) or equivalent; AND Lifting Supervisor Safety Course or WSQ-Supervise Safe Lifting Operations certificate
- Domain work experience: The trainer/facilitator should possess a minimum of five years' experience as a supervisor/foreman, safety personnel in lifting operations.

- WSQ curriculum developer pedagogic requirement: The developer must have attained a WSQ Advanced Certificate in Training and Assessment (ACTA) or its equivalent 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 (DDDLP).
- With effect from 1 October 2015, a 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; **AND**
- Language proficiency: WPLN level 7 or equivalent.

A qualified and experienced developer can work with a Subject Matter Expert with relevant domain qualifications and work experience in developing a courseware.

# CHAPTER 7: 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<br><i>On percentage of items under Range and Application and Evidence Sources to be covered</i> |
| 4.5            | Learning Strategies and Methods - Industry Requirements  |
| 5.1            | Assessment Strategies - Industry Requirements  |
| 6.1            | Trainer Requirements   |
| 6.2            | Developer Requirements   |
| 6.3            | Assessor Requirements  |

## CHAPTER 8: RESOURCE INFORMATION

This chapter indicates the various literatures, journals, articles and researched information on the "Perform Rigger and Signalman Tasks competency unit.

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

WSH (Construction) Regulations 2007

SS 497 Design, safe use and maintenance of overhead travelling cranes

SS 536 : Safe Use of Mobile Cranes

SS 559 : Code of Practice for safe use of tower Cranes

Technical Advisory on Lifting Equipment (issued by WSH Council) Checklist for Tower Crane Use (WSH Council website)

Workplace Safety and Health (WSH) Act and subsidiary legislations WSH (Operation of Cranes) Regulations

WSH (Shipbuilding and Ship-Repairing) Regulations SS 497, SS536 and SS559

Approved Code of Practice for Safe Lifting Operations (ACOP)

WSH (Risk Management) Regulations WSH

(General Provisions) Regulations

LTA Regulations concerning Lifting Operations

**PART II**  
**WSQ**  
**&**  
**Supporting**  
**Resources**

## Glossary

|  |   |
|--|---|
| TP                                     | TPs are training organisations 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 record sheet.   |
| 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.   |
| 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 Training (PET).   |
| Certification Body (CB)                          | 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.  |
| 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"> <li>- TASK skills</li> <li>- TASK management skills</li> <li>- Contingency management skills</li> <li>- Job and role management skills</li> <li>- Transfer skills</li> </ul> |
| 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 observable.  |
| 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 individual.  |

|                               |   |
|-------------------------------|---|
| 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

| <b>Version</b> | <b>Effective Date</b> | <b>Changes</b> | <b>Author</b> | <b>Approved By</b> |
|----------------|-----------------------|----------------|---------------|--------------------|
| 1.0            | 21 April 2015         | First Release  | WDA           | WDA                |
| 2.0            | 21 Jan 2022           | Update         | WSH Council   | WSH Council        |
| 3.0            | 1 Sep 2023            | Updates        | WSH Council   | WSH Council        |
|                |                       |                |               |                    |

## Annex A

### Instructional Strategy Selection Chart

| <b>Instructional Strategy</b>  | <b>Cognitive Domain</b><br>(Bloom, 1956) | <b>Affective Domain</b><br>(Krathwohl, Bloom, & Masia, 1973) | <b>Psychomotor Domain</b><br>(Simpson, 1972) |
|--|--|--|--|
| Lecture, reading, audio/visual, demonstration, or guided observations, question and answer period  | 1. Knowledge                             | 1. Receiving phenomena                                       | 1. Perception<br>2. Set                      |
| Discussions, multimedia CBT, Socratic didactic method, reflection. Activities such as surveys, role playing, case studies, fishbowls, etc.       | 2. Comprehension<br>3. Application       | 2. Responding to phenomena                                   | 3. Guided response<br>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<br>&<br>Range & Context  | Assessment Criteria<br>(State what is expected and required from the candidate)  | Assessment Methods |                    |                       | Assessment Instruments/Tools | Reference     |              |               |
|--|---|--|--------------------|--------------------|-----------------------|------------------------------|---------------|--------------|---------------|
|  |   |  | Oral Questioning   | Written Assignment | Practical Performance |                              | Trainer , s   | Learner , s  | 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>the techniques for interpreting information on customers;</p> <p><b>Range &amp; Context</b><br/> <b>Research techniques may include:</b></p> <ul style="list-style-type: none"> <li>o interviews;</li> <li>o observations;</li> <li>o surveys;</li> </ul> <p><b>Research may focus on areas which may include:</b></p> <ul style="list-style-type: none"> <li>o individual influences on customer behavior;</li> <li>o social influences on customer behavior; &amp;</li> <li>o Lifestyle influences on customer behavior.</li> </ul> <p><b>Customers may include:</b></p> <ul style="list-style-type: none"> <li>o internal or external customers;</li> </ul> | <ul style="list-style-type: none"> <li>o interviews;</li> <li>o observations;</li> <li>o surveys;</li> <li>o questionnaires;</li> <li>o database analysis;</li> <li>o interpreting third party research output; and</li> <li>o Use of business excellence tools such as Voice of Customer, Quality Function Deployment (QFD).</li> </ul> <p>Identify the needs and expectations of your customers.</p> <p><b>Show Me (Process)</b><br/>           Research the demography of your customers by:</p> <ul style="list-style-type: none"> <li>o Focusing on customer</li> </ul> | X                  |                    |                       | AA01OQ<br>Q1, Q2             | 10<br>-<br>28 | 9<br>-<br>32 | 10<br>-<br>62 |
|  |   |  |                    |                    | X                     | AA01PP<br>R1                 |               |              |               |

Sample Format for reference to develop the Cross Reference Matrix

|  |  |  |  |   |  |             |  |  |  |
|--|--|--|--|---|--|-------------|--|--|--|
|  | <ul style="list-style-type: none"> <li>○ <i>new or repeat customers;</i></li> </ul> <p><b>Customer information may include:</b></p> <ul style="list-style-type: none"> <li>○ <i>results of customer satisfaction surveys;</i></li> <li>○ <i>statistical information from ].</i></li> </ul> <p><b>For the purposes of research, customer information might be sorted into discrete groups which may include:</b></p> <ul style="list-style-type: none"> <li>○ <i>individuals;</i></li> <li>○ <i>businesses;</i></li> <li>○ <i>households;</i></li> <li>○ <i>geographically based groups;</i></li> <li>○ <i>product specific customers; and</i></li> <li>○ <i>Customer groups characterized by age, gender, cultural factors or purchasing power.</i></li> </ul> | <p>behavior.</p> <ul style="list-style-type: none"> <li>○ Defining your customers</li> <li>○ Sourcing customer information</li> <li>○ Sorting customer information into discrete (demographic) groups</li> </ul> <p><b>Show me (Product)</b></p> <p>Customer intelligence report identifying the needs and expectations of customer populations.</p> |  | X |  | AA05<br>Q1A |  |  |  |
|--|--|--|--|---|--|-------------|--|--|--|

I. Overview of Assessment for the Competency Unit

Competency unit:

Competency elements:

|                              |
|------------------------------|
| <b>Purpose of assessment</b> |
|                              |

| <b>Context of assessment</b> | <b>Details</b> |
|------------------------------|----------------|
| 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:

| <b>Title</b> | <b>Name</b> | <b>Support in Developing Aplan</b> |
|--------------|-------------|------------------------------------|
|              |             |                                    |
|              |             |                                    |
|              |             |                                    |

| <b>Competency Elements</b> | <b>Methods</b> |
|----------------------------|----------------|
|                            |                |
|                            |                |
|                            |                |

| <b>Method</b> | <b>Duration</b> | <b>Ratio of assessor to candidate</b> | <b>Remarks</b> |
|---------------|-----------------|---------------------------------------|----------------|
|               |                 |                                       |                |
|               |                 |                                       |                |
| <b>Total</b>  |                 | --                                    | --             |

**II. Assessment Matrix**

**Mapping of Assessment Methods with Performance Requirements**

| Performance Criteria (PC) | Types of Evidence   | Assessment Methods (Forms) | Assessment Tools |
|---------------------------|---------------------|----------------------------|------------------|
| <b>CE1</b>                |                     |                            |                  |
| <u>PC1.1</u>              | Process and Product | Role Play (Direct)         |                  |
| <u>PC1.2</u>              |                     |                            |                  |
|                           |                     |                            |                  |

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

|  |   |
|--|---|
| <p><b>Managing limitations of evidence</b></p> | <ul style="list-style-type: none"> <li>▪ XXXXXXXX <ul style="list-style-type: none"> <li>➤ How should limitations of the evidence gathering process be handled?</li> <li>➤ What exceptions might there be during the evidence gathering process? To what extent can assessors be flexible?</li> <li>➤ Who should assessors refer to when the evidence gathered do not fulfill the rules of evidence?</li> </ul> </li> </ul> |
|--|---|

| <p><b>SPECIFICATIONS</b></p>               | <p><b>GUIDELINES</b></p>   |
|--|--|
| <p><b>Recording Assessment Result:</b></p> | <ul style="list-style-type: none"> <li>▪ XXXXXXXX <ul style="list-style-type: none"> <li>➤ How should assessment results be handled?</li> <li>➤ How will the assessment decision be made?</li> </ul> </li> </ul> |
| <p><b>Feedback</b></p>                     | <ul style="list-style-type: none"> <li>▪ XXXXXXXX <ul style="list-style-type: none"> <li>➤ How should the feedback process be handled?</li> </ul> </li> </ul>  |



### III. Assessment Specifications for Oral Questioning

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

|   |   |
|---|---|
| <b>Managing limitations of evidence</b> | <ul style="list-style-type: none"> <li>▪ XXXXXXXX <ul style="list-style-type: none"> <li>➤ How should limitations of the evidence gathering process be handled?</li> <li>➤ What exceptions might there be during the evidence gathering process? To what extent can assessors be flexible?</li> <li>➤ Who should assessors refer to when the evidence gathered do not fulfill the rules of evidence?</li> </ul> </li> </ul> |
|---|---|

| <b>SPECIFICATIONS</b>               | <b>GUIDELINES</b>  |
|-------------------------------------|--|
| <b>Recording Assessment Result:</b> | <ul style="list-style-type: none"> <li>▪ XXXXXXXX <ul style="list-style-type: none"> <li>➤ How should assessment results be handled?</li> <li>➤ How will the assessment decision be made?</li> </ul> </li> </ul> |
| <b>Feedback</b>                     | <ul style="list-style-type: none"> <li>▪ XXXXXXXX <ul style="list-style-type: none"> <li>➤ How should the feedback process be handled?</li> </ul> </li> </ul>  |

**V. Assessment Record for Practical Performance (PP)**

**Candidate's Name:** \_\_\_\_\_ **End Time :** \_\_\_\_\_

**NRIC Number :** \_\_\_\_\_ **Start Time :** \_\_\_\_\_

**Assessor's Name:** \_\_\_\_\_

| <b>COMPETENCY ELEMENT 1: .....</b>                 |   |             |            |   |
|--|---|-------------|------------|---|
| <b>PERFORMANCE CHECKLIST</b>                       |   |             |            |   |
| <b>Performance Criteria/Underpinning Knowledge</b> | <b>Assessment Criteria</b>                          | <b>Tick</b> |            | <b>Evidence of 'C' and 'NYC' must be recorded</b> |
|  |   | <b>C</b>    | <b>NYC</b> |   |
| <b>PC 2.1</b>                                      | Candidate is able to show the following:<br>• ..... |             |            |   |
| <b>PC 2.2</b>                                      | • .....<br>• .....                                  |             |            |   |
| <b>PC 2.3</b>                                      |   |             |            |   |
| <b>PC 2.4</b>                                      |   |             |            |   |
| <b>PC2.5:</b>                                      |   |             |            |   |

**V. Assessment Record for Written Assessment**

**Candidate's Name:** \_\_\_\_\_ **End Time :** \_\_\_\_\_

**NRIC Number :** \_\_\_\_\_ **Start Time :** \_\_\_\_\_

**Assessor's Name:** \_\_\_\_\_

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

#### IV. SUMMARY ASSESSMENT RECORD

|                                |                                   |                              |
|--------------------------------|-----------------------------------|------------------------------|
| <b>Assessment Centre</b><br>:  |                                   |                              |
| <b>Competency Unit</b><br>:    |                                   |                              |
| <b>Candidate Name</b><br>:     |                                   |                              |
| <b>Candidate NRIC No.</b><br>: |                                   |                              |
| <b>Assessor Name</b><br>:      |                                   |                              |
| <b>Assessment Method</b><br>:  | <b>Practical Performance (PP)</b> | <b>Oral Questioning (OQ)</b> |
| <b>Assessment Date</b><br>:    |                                   |                              |
| <b>Start Time</b> :            |                                   |                              |
| <b>End Time</b> :              |                                   |                              |

#### Summary

| Competency Element | Assessment Method |    | Resu |
|--------------------|-------------------|----|------|
|                    | PP                | OQ |      |
|                    |                   |    |      |
|                    |                   |    |      |
|                    |                   |    |      |
|                    |                   |    |      |

This candidate has been assessed as:

- COMPETENT
- NOT YET COMPETENT

Assessor signature: \_\_\_\_\_

Candidate signature: \_\_\_\_\_

**Feedback on outcome by assessor/feedback by candidate:**

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**In the event of "NYC" result:**

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

Candidate signature:

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## VI. 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 | Effective 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.

## Format of Safety Pass

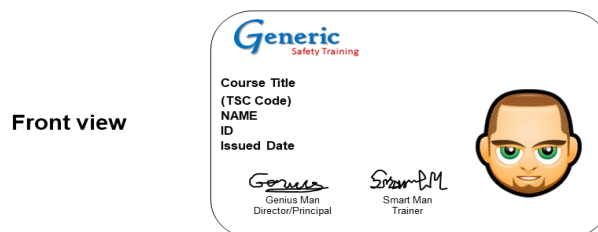
The safety pass is to be issued by accredited Training Providers to all trainees who are certified competent.

Training Providers are to issue a Safety Pass and or Certificate of Course Completion, to workers who have successfully completed and passed the course.

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  $\frac{3}{8}$  × 2  $\frac{1}{8}$  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 E

### Certificate of Successful Completion

Training Providers are to issue a Safety Pass and or Certificate of Course Completion, to workers who have successfully completed and passed the course.

3 inch 10pt 20pt 10pt 15pt 12pt 10pt 15pt 10pt 20pt 10pt 10pt 1 inch

<Official Logo/Name of TP> Serial Number: <xxx>

**CERTIFICATE OF SUCCESSFUL COMPLETION**

is awarded to

**<Name of Trainee>**  
< ID >

for successful completion of the  
<Course Title>  
<TSC Title/Code>

< Name of TP >  
\*TP approved by SkillsFuture Singapore

@ < Training venue>  
from  
<Training Date/s>

**Validity: < x Years from last date of course/ NA>**

  
**Genius Man**  
Director / Principal  
Training Division  
<Name of TP> /  
Company Stamp

  
**Smart Man**  
Trainer  
Training Division  
<Name of TP>

<Name of TP> | UEN: <XXX> | <Office Address>  
Tel: <xxx> Fax: <xxx> | Website: <xxx> | Email: <xxx>

- 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