



Skills for Employment Investment Program (SEIP)

COMPETENCY STANDARD FOR CRANE AND FORKLIFT OPERATION *(CONSTRUCTION SECTOR)*

Finance Division, Ministry of Finance
Government of the People's Republic of Bangladesh

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Copyright

The Competency Standard for Crane and Forklift Operations is a document for the development of curricula, teaching and learning materials, and assessment tools. It also serves as the document for providing training consistent with the requirements of industry in order for individuals who graduated through the established standard via competency-based assessment to be suitably qualified for a relevant job.

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List of Abbreviations

General	
BMET	Bureau of Manpower Employment and Training
B-SEP	Bangladesh Skills for Employment and Productivity
BTEB	Bangladesh Technical Education Board
DTE	Directorate of Technical Education
ILO	International Labor Organization
ISC	Industry Skills Council
NPVC	National Pre-Vocation Certificate
NTVQF	National Technical and Vocational Qualifications Framework
PPP	Public Private Partnership
SCDC	Standards and Curriculum Development Committee
SEIP	Skills for Employment Investment Program
TVET	Technical Vocational Education and Training
UoC	Unit of Competency
Occupation Specific	
OHS	Occupational health and safety
PPE	Personal protective equipment
SOP	Standard operating procedure

Introduction

The Skills for Employment Investment Program (SEIP) Project of the Finance Division of the Ministry of Finance has embarked on a project which aims to qualitatively and quantitatively expand the skilling capacity of identified public and private training providers by establishing and operationalising a responsive skill ecosystem and delivery mechanism through a combination of well-defined set of funding triggers and targeted capacity support.

Among the many components of the project, one is to promote a Market Responsive Inclusive Skills Training Delivery programme. Key priority economic growth sectors identified by the government have been targeted by the project to improve current job skills along with up-skilling of the existing workforce to ensure 'required skills to industry standards'. Training providers are encouraged and supported to work with industry to address identified skills and knowledge to enable industry growth and increased employment through the provision of market responsive inclusive skills training programmes. Priority sectors were identified to adopt a demand driven approach to training with effective inputs from Industry Skills Councils (ISC's), employer associations and employers.

This document is developed to improve skills and knowledge in accordance with the job roles, duties and tasks of the occupation and ensure that the required skills and knowledge are aligned to industry requirements.

The document also details the format, sequencing, wording and layout of the Competency Standard for an occupation which is comprised of Units of Competence and its corresponding Elements.

Overview

A **competency standard** is a written specification of the knowledge, skills and attitudes required for the performance of an occupation, trade or job corresponding to the industry standard of performance required in the workplace.

The purpose of a competency standards is to:

- provide a consistent and reliable set of components for training, recognising and assessing people's skills, and may also have optional support materials
- enable industry recognised qualifications to be awarded through direct assessment of workplace competencies
- encourage the development and delivery of flexible training which suits individual and industry requirements
- encourage learning and assessment in a work-related environment which leads to verifiable workplace outcomes

Competency standards are developed by a working group comprised of national and international subject-matter experts, SEIP, BTEB, ISC, and industry experts to identify the competencies required of an occupation in a particular sector.

Competency standards describe the skills, knowledge and attitude needed to perform effectively in the workplace. Competency standards acknowledge that people can achieve technical and vocational competency in many ways by emphasising what the learner can do, not how or where they learned to do it.

With competency standards, training and assessment may be conducted at the workplace or at training institute or any combination of these.

Competency standards consist of a number of units of competency. A unit of competency describes a distinct work activity that would normally be undertaken by one person in accordance with industry standards.

Units of competency are documented in a standard format that comprises of:

- unit title
- nominal duration
- unit code
- unit descriptor
- elements and performance criteria
- variables and range statement
- curricular content guide
- assessment evidence guide

Together, all the parts of a unit of competency:

- describe a work activity
- guide the assessor to determine whether the candidate is competent or not yet competent

Approval Sheet

Identification and validation of units of competency and elements for this occupation were made by experts within this sector. A series of meetings were held to accurately capture industry and employer needs and expectations, and develop the competency framework that would help to enhance the employability of the youth trained. This process started on 13 September 2018 and concluded with a validation workshop with working group on 28 October 2018.

Experts Involved

Industry and subject-matter experts who provided their valuable inputs to develop this competency standard [September – November 2018]:

Name	Organisation	Designation
Md. Samin Yasar	BDC	Project Engineer and Assessor
Engr. Md. Majed Ali	Asset Development and Holding Limited	Project Engineer and Assessor
Md. Imam Hossain	UNCEP	Instructor
Md. Farid Hossain	Building Technology and Ideas (bti) Limited	Project Engineer
Engr. Md. Moniruzzaman	NEN Development Limited	Project Manager
Md. Abdur Razzak	Comprehensive Holdings Limited	Project Engineer and Assessor
Md. Sayedur Rahman	British Council - SD03	National Subject Matter Consultant - Construction Sector

Development and Validation Workshop

Working group formation and competency standard development and validation workshop participants [held on 28 October 2018]:

Name	Organisation	Designation
Md. Samin Yasar	BDC	Project Engineer and Assessor
Engr. Md. Majed Ali	Asset Development and Holding Limited	Project Engineer and Assessor
Md. Imam Hossain	UNCEP	Instructor
Md. Farid Hossain	Building Technology and Ideas (bti) Limited	Project Engineer
Engr. Md. Moniruzzaman	NEN Development Limited	Project Manager
Md. Abdur Razzak	Comprehensive Holdings Limited	Project Engineer and Assessor
Mazibur Rahman	BACI	Industry Representative

Name	Organisation	Designation
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Md. Abdur Razzaque	SEIP-BTEB	Specialist-1 (Competency Standards)
Syed Nasir Ershad	SEIP	AEPD (Public 1)
Mr. Md. Ahsan Habib	SEIP	TVET Specialist
Mr. Mohiuzzaman	SEIP	Course Specialist
David King	British Council - SD03	Team Leader
Mr. Sayedur Rahman	British Council - SD03	National Subject Matter Consultant - Construction Sector

The ensuing sections of this document comprise of a description of the relevant occupation, trade or job with all the key components of a unit of competency, including:

- a chart with an overview of all Units of Competency for the relevant occupation, trade or job including the Unit Codes and the Unit of Competency titles and corresponding Elements
- the Competency Standard that includes the Unit of Competency, Unit Descriptor, Elements and Performance Criteria, Range of Variables, Curricular Content Guide and Assessment Evidence Guide

Committee Workshop

The National competency standards for National Skills Certificate in Crane and Forklift Operations, **NTVQF Level [INSERT LEVEL]** qualification is a document developed by the Skill for Employment Investment Programme (SEIP), Finance Division, Ministry of Finance. This standard has been developed by an industry expert group under guidance of SEIP. The standard was approved by the SCDC **[BTEB to insert date]** at NTVQF Cell, BTEB.

Respectable members of the SCDC:

Crane and Forklift Operations - Level [INSERT LEVEL]		

Course Structure

SL	Unit Code and Title		Level	Nominal Duration (Hours)
Generic Competencies (3 units of competency required)				
1	SEIP-CON-CFO-01-G	Carry out workplace interaction		14
2	SEIP-CON-CFO-02-G	Operate in a team environment		14
3	SEIP-CON- CFO-03-G	Use basic mathematical concepts		16
Sub-Total				44
Sector-specific Competencies (2 units of competency required)				
1	SEIP-CON- CFO-01-S	Apply occupational health and safety (OHS) practice in the workplace		14
2	SEIP-CON-CFO-02-S	Use hand and power tools		12
Sub-Total				26
Occupation-specific Competencies (6 units of competency required)				
1	SEIP-CON- CFO-01-O	Plan and organise work		20
2	SEIP-CON- CFO-02-O	Prepare and set-up crane		20
3	SEIP-CON- CFO-03-O	Perform crane operations		90
4	SEIP-CON- CFO-04-O	Perform forklift operations		80
5	SEIP-CON- CFO-05-O	Inspect and maintain crane and forklift		50
6	SEIP-CON- CFO-06-O	Assess safety issues and risks		30
Sub-Total				290
Total Nominal Learning Hours				360

Competency Chart

Units of Competency	Elements		
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Generic Specific (Basic) Competencies

Carry out workplace interaction SEIP-CON-CFO-01-G	Interpret workplace communication and etiquette	Read and understand workplace documents	Participate in workplace meetings and discussions
	Apply professional ethics at work		
Operate in a team environment SEIP-CON-CFO-02-G	Identify team goals and work processes	Identify own role and responsibilities within team	Communicate and co-operate with team members
	Perform problem solving within the team		
Use basic mathematical concepts SEIP-CON-CFO-03-G	Identify calculation requirements	Select appropriate mathematical methods/concepts for the calculation	Use tools and instruments to perform calculations

Sector-specific (Common) Competencies

Apply occupational health and safety (OHS) practice in the workplace SEIP-CON-CFO-01-S	Identify OHS policies and procedures	Apply personal health and safety practices	Report hazards and risks
	Respond to emergencies		

Use hand and power tools SEIP-CON-CFO-03-S	Identify and inspect hand and power tools	Use hand tools properly and safely	Operate power tools properly and safely
	Clean and maintain hand and power tools		

Occupation-specific (Core) Competencies

Plan and organise work SEIP-CON-CFO-01-O	Plan and prepare for work	Sequence work safely	Resolve problems
	Clean and maintain work area		
Prepare and set-up crane SEIP-CON-CFO-02-O	Plan and prepare for work	Position and stabilise crane	Assemble crane
Perform crane operations SEIP-CON-CFO-03-O	Plan and prepare for work	Prepare for crane operations	Operate crane
	Carry out crane maintenance		
Perform forklift operations SEIP-CON-CFO-04-O	Plan and prepare for work	Prepare for forklift operations	Operate forklift
	Carry out forklift maintenance		
Inspect and maintain crane and forklift SEIP-CON-CFO-05-O	Inspect tools and equipment	Test equipment functionality	Identify and assess faults
	Record and report results		

<p>Assess safety issues and risks SEIP-CON-CFO-06-O</p>	<p>Identify safety issues and risk (crane operation)</p>	<p>Identify safety issues and risk (forklift operation)</p>	<p>Report faulty tools, equipment and machinery</p>
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Units and Elements Table

Generic – Compulsory (3 units of competency required)

Code	Unit of Competency	Elements of Competency	Duration (hours)
SEIP-CON-CFO-01-G	Carry out workplace interaction	<ol style="list-style-type: none"> 1. Interpret workplace communication and etiquette. 2. Read and understand workplace documents. 3. Participate in workplace meetings and discussions. 4. Apply professional ethics at work. 	14
SEIP-CON-CFO-02-G	Operate in a team environment	<ol style="list-style-type: none"> 1. Identify team goals and work processes. 2. Identify own role and responsibilities within team. 3. Communicate and co-operate with team members. 4. Perform problem solving within the team. 	14
SEIP-CON-CFO-03-G	Use basic mathematical concepts	<ol style="list-style-type: none"> 1. Identify calculation requirements in the workplace. 2. Select appropriate mathematical methods/concepts for the calculation. 3. Use tools and instruments to perform calculations. 	16
Total Hours			44

Sector-specific – Compulsory (2 units of competency required)

Code	Unit of Competency	Elements of Competency	Duration (hours)
SEIP-CON-CFO-01-S	Apply occupational health and safety (OHS) practice in the workplace	<ol style="list-style-type: none"> 1. Identify OHS policies and procedures. 2. Apply personal health and safety Practices. 3. Report hazards and risks. 4. Respond to emergencies. 	14
SEIP-CON-CFO-02-S	Use hand and power tools	<ol style="list-style-type: none"> 1. Identify and inspect hand and power tools. 2. Use hand tools properly and safely. 3. Operate power tools properly and safely. 4. Clean and maintain hand and power tools. 	12
Total Hours			26

Occupation-specific – Compulsory (6 units of competency required)

Code	Unit of Competency	Elements of Competency	Duration (hours)
SEIP-CON-CFO-01-O	Plan and organise work	<ol style="list-style-type: none"> 1. Plan and prepare for work. 2. Sequence work safely. 3. Resolve problems. 4. Clean and maintain work area. 	20
SEIP-CON-CFO-02-O	Prepare and set-up crane	<ol style="list-style-type: none"> 1. Plan and prepare for work. 2. Position and stabilise crane. 3. Assemble crane. 	20
SEIP-CON-CFO-03-O	Perform crane operations	<ol style="list-style-type: none"> 1. Plan and prepare for work. 2. Prepare for crane operations. 3. Operate crane. 4. Carry out crane maintenance. 	90
SEIP-CON-CFO-04-O	Perform forklift operations	<ol style="list-style-type: none"> 1. Plan and prepare for work. 2. Prepare for forklift operations. 3. Operate forklift. 4. Carry out forklift maintenance. 	80
SEIP-CON-CFO-05-O	Inspect and maintain crane and forklift	<ol style="list-style-type: none"> 1. Inspect tools and equipment. 2. Test equipment functionality. 3. Identify and assess faults. 4. Record and report faults. 	50
SEIP-CON-CFO-06-O	Assess safety issues and risks	<ol style="list-style-type: none"> 1. Identify safety issues and risk (crane operation). 2. Identify safety issues and risk (forklift operation). 3. Report faulty tools, equipment and machinery. 	30
Total Hours			290

Generic Competencies

Unit Title:	Carry out workplace interaction
Unit Code:	SEIP-CON-CFO-01-G
Nominal Hours:	14 hours
Unit Descriptor:	This unit covers the skills, knowledge and attitudes required to carry out workplace interaction. It specifically includes workplace communication, etiquette, understanding workplace documents, workplace meetings and discussions, and professional ethics at work.
Elements of Competency	Performance Criteria (<u>bold and underlined</u> terms are elaborated in the Range of Variables)
1. Interpret workplace communication and etiquette	<p>1.1. Workplace codes of conduct are interpreted as per organisational guidelines.</p> <p>1.2. Appropriate lines of communication are maintained with supervisors and colleagues.</p> <p>1.3. Workplace interactions are conducted in a <u>courteous manner</u> to gather and convey information.</p> <p>1.4. <u>Workplace procedures and matters</u> are comprehended.</p>
2. Read and understand workplace documents	<p>2.1. Workplace documents are interpreted correctly.</p> <p>2.2. Visual information/symbols/signage are understood correctly and followed.</p> <p>2.3. Specific and relevant information are accessed from <u>appropriate sources</u>.</p> <p>2.4. Appropriate medium is used to transfer information and ideas.</p>
3. Participate in workplace meetings and discussions	<p>3.1. Team meetings are attended on time.</p> <p>3.2. Meeting procedures and etiquette are followed.</p> <p>3.3. Active participation is ensured, opinions are expressed and heard.</p> <p>3.4. Inputs are provided and interpreted in line with the meeting purpose.</p>
4. Practice professional ethics at work	<p>4.1. Responsibilities as a team member are performed.</p> <p>4.2. Tasks are performed in accordance with workplace procedures.</p> <p>4.3. Confidentiality is maintained.</p> <p>4.4. Inappropriate and conflicting situations are avoided.</p>

Range of Variables	
Variable	Range (may include but not limited to)
1. Courteous manner	1.1. Effective questioning 1.2. Active listening 1.3. Speaking skills 1.4. Writing skill 1.5. Email etiquette
2. Workplace procedures and matters	2.1. Notes 2.2. Arranging a meeting 2.3. Agenda 2.4. Simple reports such as progress and incident reports 2.5. Job sheets 2.6. Operational manuals 2.7. Brochures and promotional material 2.8. Visual and graphic materials 2.9. Standards 2.10. OHS information 2.11. Signs
3. Appropriate sources	3.1. Human Resources (HR) Department 3.2. Managers 3.3. Supervisors 3.4. Management Information System (MIS)

Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.	
1. Critical aspects of competency	Assessment must evidence that the candidate: <ol style="list-style-type: none"> 1.1. Interpreted workplace communication and etiquette 1.2. Interpreted workplace instructions and symbols 1.3. Performed active participation in workplace meetings
2. Underpinning knowledge	<ol style="list-style-type: none"> 2.1. Workplace communication and etiquette 2.2. Workplace documents, signs and symbols 2.3. Meeting procedure and etiquette 2.4. Professional ethics
3. Underpinning skills	<ol style="list-style-type: none"> 3.1. Demonstrating workplace communication and etiquette 3.2. Interpreting workplace instructions and symbols 3.3. Demonstrating active participation in workplace meeting 3.4. Applying professional ethics at work

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.

4. Underpinning attitudes

- 4.1. Prompt in carrying out activities
- 4.2. Tidy and punctual
- 4.3. Respectful of peers, subordinates and seniors in the workplace
- 4.4. Concerned about the work environment
- 4.5. Sincere and honest concerning duties

5. Resource implications

- The following resources must be provided:
- 5.1. Workplace (simulated or actual)
 - 5.2. Workplace procedures
 - 5.3. Standard operating procedure
 - 5.4. Workplace documents, signs and symbols
 - 5.5. Codes of conduct
 - 5.6. Projector
 - 5.7. Stationary
 - 5.8. Learning manual

6. Methods of assessment

- Methods of assessment may include but is not limited to:
- 6.1. Written test
 - 6.2. Demonstration
 - 6.3. Oral test
 - 6.4. Observation
 - 6.5. Portfolio

7. Context of assessment

- 7.1. Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency.
- 7.2. Assessment must be done by a suitably qualified/certified assessor.

Accreditation Requirements

Training Providers must be accredited by Bangladesh Technical Education Board (BTEB), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any NTVQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by BTEB.

Unit Title:	Operate in a team environment
Unit Code:	SEIP-CON-CFO-02-G
Nominal Hours:	14 hours
Unit Descriptor:	This unit covers the skills, knowledge and attitudes required to operate in a team environment. It specifically includes team goals and work processes, roles and responsibilities, team communication and problem solving within the team.
Elements of Competency	Performance Criteria (<u>bold and underlined</u> terms are elaborated in the Range of Variables)
1. Identify team goals and work processes	<p>1.1. Roles and objectives of the team are identified and interpreted.</p> <p>1.2. Roles and responsibilities of team members are identified and interpreted.</p>
2. Identify own role and responsibilities within team	<p>2.1. Personal role and responsibilities are identified within the team environment.</p> <p>2.2. Reporting relationships are interpreted within team and external to team.</p>
3. Communicate and co-operate with team members	<p>3.1. Other teammates' tasks are identified and support provided when requested.</p> <p>3.2. The team is encouraged through <u>sharing information</u> or expertise, working together to solve problems, and putting team success first.</p> <p>3.3. Views and opinions of other team members are interpreted and respected.</p>
4. Practice problem solving within the team	<p>4.1. Problems faced at the individual and team level are identified and showed insight into the root-causes of the problems.</p> <p>4.2. A range of solutions and courses of action are identified together with benefits, costs, and risks associated with each.</p> <p>4.3. The good ideas of others to help develop solutions are recognised and advice sought from those who have solved similar problems.</p> <p>4.4. It is looked beyond the obvious and not stopped at the first answers.</p>

Range of Variables	
Variable	Range (<i>may include but not limited to</i>)
1. Sharing information	1.1. Agenda 1.2. Minutes 1.3. Progress and incident reports 1.4. Operational manuals 1.5. Visual and graphic materials 1.6. Emails and SMS 1.7. Phone directory 1.8. Policy, procedure and standards 1.9. OHS information

Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.	
1. Underpinning knowledge	1.1. Team goals and work processes 1.2. Roles and responsibilities 1.3. Finding problems and solving them
2. Underpinning skills	2.1. Identifying own role and responsibilities within team 2.2. Communicating and co-operating with team members 2.3. Demonstrating problem solving within the team
3. Underpinning attitudes	3.1. Active on teamwork 3.2. Prompt in carrying out activities 3.3. Tidy and punctual 3.4. Respectful of peers, subordinates and seniors in the workplace 3.5. Sincere and honest concerning duties
4. Underpinning knowledge	4.1. Team goals and work processes 4.2. Roles and responsibilities 4.3. Finding problems and solving them
5. Resource implications	The following resources must be provided: 5.1. Workplace (simulated or actual) 5.2. Projector 5.3. Stationary 5.4. Learning manual

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.

6. Methods of assessment

Methods of assessment may include but is not limited to:

- 6.1. Written test
- 6.2. Demonstration
- 6.3. Oral test
- 6.4. Observation
- 6.5. Portfolio

7. Context of assessment

- 7.1. Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency.
- 7.2. Assessment must be done by a suitably qualified/certified assessor.

Accreditation Requirements

Training Providers must be accredited by Bangladesh Technical Education Board (BTEB), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any NTVQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by BTEB.

Unit Title:	Use basic mathematical concepts
Unit Code:	SEIP-CON-CFO-03-G
Nominal Hours:	14 hours
Unit Descriptor:	This unit covers the skills, knowledge and attitudes required to perform computations using basic mathematical concepts in the workplace. It specifically includes identifying general calculation requirements, selecting appropriate mathematical method/concept, and forming and solving mathematical problems in the workplace using appropriate tools and instruments.
Elements of Competency	Performance Criteria (<u>bold and underlined</u> terms are elaborated in the Range of Variables)
1. Identify calculation requirements in the workplace	1.1. <u>Calculation requirements</u> are identified from <u>workplace information</u> . 1.2. Mathematical problems are constructed from workplace information.
2. Select appropriate mathematical methods/concepts for the calculation	2.1. <u>Appropriate method</u> is selected to carry out calculation requirements. 2.2. Constructed mathematical problems are solved with appropriate method.
3. Use tools and instruments to perform calculations	3.1. Tools and instruments required for computation are identified. 3.2. Calculation is performed using appropriate tools and instruments accurately.

Range of Variables	
Variable	Range (<i>may include but not limited to</i>)
1. Calculation requirements	1.1. Unit 1.2. Area 1.3. Height/ length/ breadth/ thickness 1.4. Diameter 1.5. Weight 1.6. Capacity 1.7. Time 1.8. Temperature 1.9. Material/data usage 1.10. Speed 1.11. Costing

Range of Variables	
Variable	Range (may include but not limited to)
2. Workplace information	2.1. Floor environment 2.2. Design sheet 2.3. Specification sheet 2.4. Working chart/drawing 2.5. Standard operating procedure (SOP) 2.6. Job order
3. Appropriate method	3.1. Addition 3.2. Subtraction 3.3. Division 3.4. Multiplication 3.5. Conversion 3.6. Percentage and ratio calculation 3.7. Simple equation
4. Tools and instruments	4.1. Calculator 4.2. Cell phone 4.3. Computer 4.4. Ruler

Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.	
1. Critical aspects of competency	Assessment must evidence that the candidate: <ol style="list-style-type: none"> 1.1. Identified calculation requirements from workplace information 1.2. Selected appropriate method to carry out the calculation requirements 1.3. Completed calculations using appropriate tools and instruments
2. Underpinning knowledge	<ol style="list-style-type: none"> 2.1. Numerical concepts 2.2. Basic mathematical methods such as addition, subtraction, multiplication, division and percentage 2.3. Mathematical language, symbols and terminology 2.4. Measuring units
3. Underpinning skills	<ol style="list-style-type: none"> 3.1. Constructing simple problems from workplace information 3.2. Solving problems using appropriate method, tools and instruments 3.3. Using appropriate tools and instruments

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.

4. Underpinning attitudes	4.1. Prompt in carrying out activities 4.2. Tidy and punctual 4.3. Respectful of peers, subordinates and seniors in the workplace 4.4. Safely use tools and equipment 4.5. Sincere and honest concerning duties
5. Resource implications	The following resources must be provided: 5.1. Workplace (simulated or actual) 5.2. Calculator 5.3. Cell phone 5.4. Computer/laptop/notebook 5.5. Measuring tape 5.6. Ruler 5.7. Projector 5.8. Stationary 5.9. Learning manual
6. Methods of assessment	Methods of assessment may include but is not limited to: 6.1. Written test 6.2. Oral test 6.3. Observation 6.4. Demonstration 6.5. Portfolio
7. Context of assessment	7.1. Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency. 7.2. Assessment must be done by a suitably qualified/certified assessor.

Accreditation Requirements

Training Providers must be accredited by Bangladesh Technical Education Board (BTEB), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any NTVQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by BTEB.

Sector-specific Competencies

Unit Title:	Apply occupational health and safety (OHS) practice in the workplace
Unit Code:	SEIP-CON-CFO-01-S
Nominal Hours:	14 hours
Unit Descriptor:	This unit covers the skills, knowledge and attitudes required to apply occupational health and safety (OHS) practices in the workplace. It specifically includes identifying OHS policies and procedures, applying personal health and safety practices, reporting hazards and risks, and responding to emergencies.
Elements of Competency	Performance Criteria (<u>bold and underlined</u> terms are elaborated in the Range of Variables)
1. Identify OHS policies and procedures	<p>1.1. <u>OHS policies</u> and safe operating procedures are interpreted.</p> <p>1.2. Safety signs and symbols are identified and followed.</p> <p>1.3. Response, evacuation procedures and other contingency measures are interpreted correctly.</p>
2. Apply personal health and safety practices	<p>2.1. OHS policies and procedures are applied in the workplace including <u>personal protective equipment (PPE)</u>.</p> <p>2.2. Common health issues are recognised.</p> <p>2.3. Common safety issues are identified.</p>
3. Report hazards and risks	<p>3.1. Hazards and risks are identified.</p> <p>3.2. Hazards and risks assessment and controls are interpreted.</p>
4. Respond to emergencies	<p>4.1. Respond to alarms and warning devices.</p> <p>4.2. <u>Emergency response plans and procedures</u> are responded to.</p> <p>4.3. <u>First aid procedures</u> during emergency situations are identified.</p>

Range of Variables	
Variable	Range (<i>may include but not limited to</i>)
1. OHS policies	<p>1.1. Organisational OHS policies</p> <p>1.2. International OHS requirements</p> <p>1.3. Fire safety rules and regulations</p>
2. Emergency response plans and procedures	<p>2.1. Firefighting procedures</p> <p>2.2. Earthquake response procedures</p> <p>2.3. Emergency response plans and procedures</p> <p>2.4. Medical and first aid</p>

Range of Variables	
Variable	Range (<i>may include but not limited to</i>)
3. First aid procedure	3.1. Washing of open wound 3.2. Washing chemically infected area 3.3. Applying bandage 3.4. Taking appropriate medicine
4. Personal protective equipment	4.1. Safety glasses 4.2. Ear plugs 4.3. Gloves 4.4. Apron 4.5. Helmet 4.6. Mask 4.7. Safety shoes

Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.	
1. Critical aspects of competency	Assessment must evidence that the candidate: <ol style="list-style-type: none"> 1.1. Identified OHS policies and procedures 1.2. Applied personal health and safety practices (including PPE) 1.3. Reported hazards and risks 1.4. Responded to emergencies
2. Underpinning knowledge	<ol style="list-style-type: none"> 2.1. Workplace OHS policies and procedures 2.2. Work safety procedures 2.3. Emergency response procedures: <ol style="list-style-type: none"> 2.3.1. Firefighting 2.3.2. Earthquake response 2.3.3. Accident response 2.4. Types of hazards (biological, chemical and physical) and their effects 2.5. OHS awareness 2.6. Personal protective equipment (PPE)
3. Underpinning skills	<ol style="list-style-type: none"> 3.1. Identifying OHS policies and procedures 3.2. Applying personal health and safety practices 3.3. Reporting hazards and risks 3.4. Responding to emergencies

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.

4. Underpinning attitudes	<ul style="list-style-type: none">4.1. Committed to occupational health and safety practices4.2. Communicates well with peers, subordinates and seniors in workplace4.3. Prompt in carrying out activities4.4. Tidy and punctual4.5. Sincere and honest concerning duties4.6. Responsible during emergencies
5. Resource implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none">5.1. Workplace (simulated or actual)5.2. Personal protective equipment (PPE)5.3. Firefighting equipment5.4. Emergency response manual5.5. First aid kits5.6. Stationary5.7. Learning manual
6. Methods of assessment	<p>Methods of assessment may include but is not limited to:</p> <ul style="list-style-type: none">6.1. Written test6.2. Demonstration6.3. Oral test6.4. Observation6.5. Portfolio
7. Context of assessment	<ul style="list-style-type: none">7.1. Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency.7.2. Assessment must be done by a suitably qualified/certified assessor.

Accreditation Requirements

Training Providers must be accredited by Bangladesh Technical Education Board (BTEB), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any NTVQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by BTEB.

Unit Title:	Use hand and power tools
Unit Code:	SEIP-CON-CFO-02-S
Nominal Hours:	12 hours
Unit Descriptor:	This unit covers the skills, knowledge and attitudes required to use hand and power tools in the workplace. It specifically includes identifying and inspecting hand and power tools for usability, using and operating tools properly and safely, and cleaning and maintaining hand and power tools after use.
Elements of Competency	Performance Criteria (<u>bold and underlined</u> terms are elaborated in the Range of Variables)
1. Identify and inspect hand and power tools	<p>1.1. Appropriate hand and power tools are identified.</p> <p>1.2. Application of hand and power tools is recognised.</p> <p>1.3. Usability of hand and power tools is checked and verified.</p>
2. Use hand tools properly and safely	<p>2.1. Appropriate <u>hand tools</u> are selected.</p> <p>2.2. Safety precautions are ensured before using hand tools.</p> <p>2.3. Unsafe or faulty hand tools are identified and marked for repair.</p> <p>2.4. <u>Measuring tools</u> are checked and calibrated before use.</p> <p>2.5. Use hand tools properly and safely to perform work activity.</p>
3. Operate power tools properly and safely	<p>3.1. Appropriate <u>power tools</u> are selected.</p> <p>3.2. Power supply outlet and electrical cord are inspected and confirmed safe for use in accordance with established workplace safety requirements.</p> <p>3.3. Safety precautions are ensured before using power tools in accordance with manufacturer's operating specification.</p> <p>3.4. Proper sequence of operation applied for using power tools.</p> <p>3.5. Unsafe or faulty power tools are identified and marked for repair.</p> <p>3.6. Operate power tools properly and safely to perform work activity.</p>
4. Clean and maintain hand and power tools	<p>4.1. Dust and foreign matter is removed from hand and power tools in accordance to workplace standards.</p> <p>4.2. Condition of hand and power tools is checked after use and reported.</p> <p>4.3. Appropriate lubricant is applied after use and prior to storage.</p> <p>4.4. Measuring tools are checked and calibrated after use.</p> <p>4.5. Defective hand and power tools are inspected and repaired or replaced.</p> <p>4.6. Hand and power tools are stored and secured in accordance with workplace requirements.</p>

Range of Variables	
Variable	Range <i>(may include but not limited to)</i>
1. Hand tools	<ul style="list-style-type: none"> 1.1. Hacksaw 1.2. Hammer 1.3. Files 1.4. Pliers 1.5. Punches 1.6. Screwdrivers 1.7. Wrench box 1.8. Hand tap 1.9. Wire cutters 1.10. Hand hacksaw 1.11. Drill 1.12. Grinder 1.13. Dial gauge 1.14. Spanner comb 1.15. Spanner ring 1.16. Socket ratchet set 1.17. Easy opener 1.18. Top roller adjust gauge 1.19. Allen key 1.20. Top roller adjust gauge
2. Power tools	<ul style="list-style-type: none"> 2.1. Portable drilling machine 2.2. Threading machine 2.3. Saws 2.4. Glue gun 2.5. Soldering iron 2.6. Grinders
3. Measuring tools	<ul style="list-style-type: none"> 3.1. Measuring tape 3.2. Steel tape 3.3. Techo Meter 3.4. Slide callipers

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.

<p>1. Critical aspects of competency</p>	<p>Assessment must evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1. Identified and selected appropriate hand and power tools for work to be performed 1.2. Identified and used measuring and testing tools appropriate to work activity 1.3. Followed safety precautions when using hand and power tools 1.4. Operated power tools safely and pursuant to manufacturer's operating specification 1.5. Performed cleaning and maintenance of hand and power tools after use and prior to storing
<p>2. Underpinning knowledge</p>	<ul style="list-style-type: none"> 2.1. Information on types of hand and power tools, their functions and use 2.2. Procedures for safely using hand and power tools
<p>3. Underpinning skills</p>	<ul style="list-style-type: none"> 3.1. Identifying hand, power and measuring tools 3.2. Following safety precautions when using hand, power and measuring tools 3.3. Using hand and measuring tools correctly and safely in accordance with manufacturer's operating specification 3.4. Operating power tools correctly and safely in accordance with manufacturer's operating specification 3.5. Cleaning and maintaining hand and power tools after use 3.6. Applying appropriate lubricant on hand and power tools after use and prior to storing
<p>4. Underpinning attitudes</p>	<ul style="list-style-type: none"> 4.1. Commitment to occupational health and safety 4.2. Promptness in carrying out activities 4.3. Sincere and honest to duties 4.4. Environmental concerns 4.5. Tidiness and timeliness 4.6. Concerned for proper use of tools
<p>5. Resource implications</p>	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 5.1. Workplace (simulated or actual) 5.2. Hand tools 5.3. Power tools 5.4. Measuring tools 5.5. Projector 5.6. Stationary 5.7. Learning manual

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.

6. Methods of assessment

Methods of assessment may include but is not limited to:

- 6.1. Written test
- 6.2. Oral test
- 6.3. Observation
- 6.4. Demonstration
- 6.5. Portfolio

7. Context of assessment

- 7.1. Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency.
- 7.2. Assessment must be done by a suitably qualified/certified assessor.

Accreditation Requirements

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Occupation-specific Competencies

Unit Title:	Plan and organise work
Unit Code:	SEIP-CON-CFO-01-O
Nominal Hours:	20 hours
Unit Descriptor:	This unit covers the skills, knowledge and attitudes related to plan and organise work. It specifically includes planning and preparing for work, sequencing work safely, resolving problems, and cleaning and maintaining work area.
Elements of Competency	Performance Criteria (<u>bold and underlined</u> terms are elaborated in the Range of Variables)
1. Plan and prepare for work	<p>1.1. Work requirements are identified and correctly interpreted ensuring <u>quality requirements</u> are met.</p> <p>1.2. Job instructions are read and clarified where needed.</p> <p>1.3. Work area is inspected and prepared as per job requirement.</p> <p>1.4. Appropriate personal protective equipment (PPE) is identified and selected.</p> <p>1.5. Tools and equipment are identified, checked for serviceability and selected.</p>
2. Sequence work safely	<p>2.1. Job requirement is reviewed to ensure that tasks are performed timely, safe and efficient manner.</p> <p>2.2. Compliance documentation is completed and submitted to appropriate authority.</p>
3. Resolve problems	<p>3.1. Problems with work processes are identified and improvements suggested.</p> <p>3.2. Work processes are modified to suit changing circumstances.</p> <p>3.3. Problems are reported in a timely manner to relevant personnel.</p>
4. Clean and maintain work area	<p>4.1. Tools and equipment are cleaned, maintained and stored.</p> <p>4.2. Work area is cleaned and maintained, and waste material disposed of.</p> <p>4.3. Defective or faulty tools and equipment are recorded and reported.</p>

Range of Variables	
Variable	Range (<i>may include but not limited to</i>)
1. Quality requirements	1.1. Local standards 1.2. Company quality policy 1.3. Manufacturer standards 1.4. International standards 1.5. Standard operating procedure

Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.	
1. Critical aspects of competency	Assessment must evidence that the candidate: <ol style="list-style-type: none"> 1.1. Planned and prepared for work 1.2. Identified quality requirements 1.3. Checked tools and equipment 1.4. Sequenced work safely 1.5. Identified problems with work processes and solutions 1.6. Cleaned and maintained tools and equipment 1.7. Cleaned and maintained work area
2. Underpinning knowledge	<ol style="list-style-type: none"> 2.1. Work planning and preparation 2.2. Quality requirements 2.3. Personal protective equipment (PPE) 2.4. Tools and equipment 2.5. Compliance documents 2.6. Work processes 2.7. Cleaning and maintenance procedures
3. Underpinning skills	<ol style="list-style-type: none"> 3.1. Planning and preparing for work 3.2. Identifying and interpreting quality requirements 3.3. Sequencing work safely 3.4. Identify work process problems and possible solutions 3.5. Modifying work processes 3.6. Cleaning, maintaining and storing tools and equipment 3.7. Cleaning and maintaining work area 3.8. Disposing of waste material

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.

4. Underpinning attitudes

- 4.1. Tidy and punctual
- 4.2. Prompt in carrying out activities
- 4.3. Sincere and honest concerning duties
- 4.4. Active on teamwork
- 4.5. Eager to learn
- 4.6. Concerned for proper use of tools
- 4.7. Committed to occupational health and safety practices
- 4.8. Respectful of peers, subordinates and seniors in the workplace
- 4.9. Communicate with peers and seniors in the workplace

5. Resource implications

The following resources must be provided:

- 5.1. Workplace (simulated or actual)
- 5.2. Personal protective equipment (PPE)
- 5.3. Tools and equipment
- 5.4. Materials
- 5.5. Job specifications
- 5.6. Manuals
- 5.7. Projector
- 5.8. Stationary
- 5.9. Learning manual

6. Methods of assessment

Methods of assessment may include but is not limited to:

- 6.1. Written test
- 6.2. Oral test
- 6.3. Observation
- 6.4. Demonstration
- 6.5. Portfolio

7. Context of assessment

- 7.1. Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency.
- 7.2. Assessment must be done by a suitably qualified/certified assessor.

Accreditation Requirements

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Unit Title:	Prepare and set-up crane
Unit Code:	SEIP-CON-CFO-02-O
Nominal Hours:	20 hours
Unit Descriptor:	This unit covers the skills, knowledge and attitudes required to prepare and set-up crane. It specifically includes planning and preparing for work, positioning and stabilising crane, and assembling crane.
Elements of Competency	Performance Criteria (<u>bold and underlined</u> terms are elaborated in the Range of Variables)
1. Plan and prepare for work	<p>1.1. Work requirements are identified and correctly interpreted ensuring quality requirements are met.</p> <p>1.2. Job instructions are read and clarified where needed.</p> <p>1.3. Work area is inspected and prepared as per job requirement.</p> <p>1.4. <u>Types of crane</u> are identified and selected appropriate to job requirement.</p> <p>1.5. Appropriate personal protective equipment (PPE) is identified and selected.</p> <p>1.6. Tools and equipment are identified, checked for serviceability and selected.</p>
2. Position and stabilise crane	<p>2.1. Ground is checked to ensure it is sufficiently firm to bear load.</p> <p>2.2. Plates or packing are used to adequately distribute load weight.</p> <p>2.3. Crane is directed to position as per job plan to ensure safe operation.</p> <p>2.4. Outriggers and stabilisers are deployed and positioned to secure crane.</p> <p>2.5. Outrigger packing is checked prior to and after lift is taken to ensure immovability.</p>
3. Assemble crane	<p>3.1. Block is reeved as per manufacturer's instructions.</p> <p>3.2. Counterweights are installed to manufacturer's specifications.</p> <p>3.3. Attachments are set-up as per manufacturer's instructions.</p> <p>3.4. Straight fly jibs and luffing fly jibs are assembled and fitted as per manufacturer's specifications.</p> <p>3.5. Qualified rigger or other suitably qualified person is consulted to ensure safe and secure assembly of crane.</p>

Range of Variables	
Variable	Range (may include but not limited to)
1. Types of crane	1.1. Single girder 1.2. Double girder 1.3. Tower 1.4. Mobile 1.5. Truck 1.6. Crawler 1.7. Derrick 1.8. Bridge 1.9. Gantry

Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.	
1. Critical aspects of competency	1.5.
2. Underpinning knowledge	2.1. Work planning and preparation 2.2. Personal protective equipment (PPE) 2.3. Tools and equipment 2.4. Cranes 2.5. Outriggers and stabilisers 2.6. Manufacturer's instructions and specifications 2.7. Assembly process 2.8. Standard operating procedures
3. Underpinning skills	3.1. Planning and preparing work 3.2. Identifying types of crane 3.3. Selecting appropriate crane 3.4. Positioning and stabilising crane 3.5. Assembling crane
4. Underpinning attitudes	4.1. Tidy and punctual 4.2. Prompt in carrying out activities 4.3. Sincere and honest concerning duties 4.4. Active on teamwork 4.5. Eager to learn 4.6. Concerned for proper use of tools 4.7. Committed to occupational health and safety practices 4.8. Respectful of peers, subordinates and seniors in the workplace 4.9. Communicate with peers and seniors in the workplace

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.

5. Resource implications

The following resources must be provided:

- 5.1. Workplace (simulated or actual)
- 5.2. Personal protective equipment (PPE)
- 5.3. Tools and equipment
- 5.4. Crane
- 5.5. Associated parts, accessories and materials
- 5.6. Job specifications
- 5.7. Manufacturer's instructions/specifications
- 5.8. Standard operating procedure
- 5.9. Projector
- 5.10. Stationary
- 5.11. Learning manual

6. Methods of assessment

Methods of assessment may include but is not limited to:

- 6.1. Written test
- 6.2. Oral test
- 6.3. Observation
- 6.4. Demonstration
- 6.5. Portfolio

7. Context of assessment

- 7.1. Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency.
- 7.2. Assessment must be done by a suitably qualified/certified assessor.

Accreditation Requirements

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Unit Title:	Perform crane operations
Unit Code:	SEIP-CON-CFO-03-O
Nominal Hours:	90 hours
Unit Descriptor:	This unit covers the skills, knowledge and attitudes required to perform crane operations. It specifically includes planning and preparing for work, preparing for crane operations, operating crane, and carrying out crane maintenance.
Elements of Competency	Performance Criteria (<u>bold and underlined</u> terms are elaborated in the Range of Variables)
1. Plan and prepare for work	<p>1.1. Work requirements are identified and correctly interpreted ensuring quality requirements are met.</p> <p>1.2. Job instructions are read and clarified where needed.</p> <p>1.3. Work area is inspected and prepared as per job requirement.</p> <p>1.4. Appropriate personal protective equipment (PPE) is identified and selected.</p> <p>1.5. Tools and equipment are identified, checked for serviceability and selected.</p>
2. Prepare for crane operations	<p>2.1. Access, interpret and apply <u>crane</u> and load handling documentation to ensure compliance.</p> <p>2.2. Potential risks, hazards and environmental issues are identified and addressed, and implement control measures.</p> <p>2.3. Crane attachments are identified and selected ensuring compliance with operating capacity.</p> <p>2.4. Roles and responsibilities of team are identified and employed prior to, during and after completion of crane operations.</p>
3. Operate crane	<p>3.1. Crane attachments are fitted, used and removed correctly.</p> <p>3.2. Maneuvering and positioning of crane is performed smoothly.</p> <p>3.3. Load is secured, lifted, transferred and placed safely and securely.</p> <p>3.4. Monitors and alarms are checked during operation of crane to ensure safe completion of task.</p>
4. Carry out crane maintenance	<p>4.1. Crane is checked, and routine maintenance is performed, if required.</p> <p>4.2. Major faults are identified and reported for repair or replacement.</p> <p>4.3. Crane and crane attachments are cleaned as per standard operating procedure.</p>

Range of Variables	
Variable	Range (may include but not limited to)
1. Crane	1.1. Single girder 1.2. Double girder 1.3. Tower 1.4. Mobile 1.5. Truck 1.6. Crawler 1.7. Derrick 1.8. Bridge 1.9. Gantry

Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.	
1. Critical aspects of competency	1.6.
2. Underpinning knowledge	2.1. Work planning and preparation
3. Underpinning skills	3.1. Planning and preparing work
4. Underpinning attitudes	4.1. Tidy and punctual 4.2. Prompt in carrying out activities 4.3. Sincere and honest concerning duties 4.4. Active on teamwork 4.5. Eager to learn 4.6. Concerned for proper use of tools 4.7. Committed to occupational health and safety practices 4.8. Respectful of peers, subordinates and seniors in the workplace 4.9. Communicate with peers and seniors in the workplace

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.

5. Resource implications

The following resources must be provided:

- 5.1. Workplace (simulated or actual)
- 5.2. Personal protective equipment (PPE)
- 5.3. Tools and equipment
- 5.4. Crane
- 5.5. Associated parts, accessories and attachments
- 5.6. Job specifications
- 5.7. Load handling documentation
- 5.8. Manufacturer's instructions/specifications
- 5.9. Standard operating procedure
- 5.10. Projector
- 5.11. Stationary
- 5.12. Learning manual

6. Methods of assessment

Methods of assessment may include but is not limited to:

- 6.1. Written test
- 6.2. Oral test
- 6.3. Observation
- 6.4. Demonstration
- 6.5. Portfolio

7. Context of assessment

- 7.1. Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency.
- 7.2. Assessment must be done by a suitably qualified/certified assessor.

Accreditation Requirements

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Unit Title:	Perform forklift operations
Unit Code:	SEIP-CON-CFO-04-O
Nominal Hours:	80 hours
Unit Descriptor:	This unit covers the skills, knowledge and attitudes required to perform forklift operations. It specifically includes planning and preparing for work, preparing for forklift operations, operating forklift, and carrying out forklift maintenance.
Elements of Competency	Performance Criteria (<u>bold and underlined</u> terms are elaborated in the Range of Variables)
1. Plan and prepare for work	<p>1.1. Work requirements are identified and correctly interpreted ensuring quality requirements are met.</p> <p>1.2. Job instructions are read and clarified where needed.</p> <p>1.3. Work area is inspected and prepared as per job requirement.</p> <p>1.4. <u>Types of forklift</u> are identified and selected appropriate to job requirement.</p> <p>1.5. Appropriate personal protective equipment (PPE) is identified and selected.</p> <p>1.6. Tools and equipment are identified, checked for serviceability and selected.</p>
2. Prepare for forklift operations	<p>2.1. Access, interpret and apply forklift and load handling documentation to ensure compliance.</p> <p>2.2. Potential risks, hazards and environmental issues are identified and addressed, and implement control measures.</p> <p>2.3. Forklift attachments are identified and selected ensuring compliance with operating capacity.</p> <p>2.4. Roles and responsibilities of team are identified and employed prior to, during and after completion of forklift operations.</p>
3. Operate forklift	<p>3.1. Pre-start and start-up procedures are carried out.</p> <p>3.2. Forklift attachments are fitted, used and removed correctly.</p> <p>3.3. Maneuvering and positioning of forklift is performed smoothly.</p> <p>3.4. Load is secured, lifted, transferred and placed safely and securely.</p> <p>3.5. Monitors and alarms are checked during operation of forklift to ensure safe completion of task.</p> <p>3.6. Shutdown procedure is followed as per standard operating procedure.</p>
4. Carry out forklift maintenance	<p>4.1. Forklift is checked, and routine maintenance is performed, if required.</p> <p>4.2. Major faults are identified and reported for repair or replacement.</p> <p>4.3. Forklift and forklift attachments are cleaned as per standard operating procedure.</p>

Range of Variables	
Variable	Range (may include but not limited to)
1. Types of forklift	1.1. Cushion tire 1.2. Pneumatic 1.3. Four-wheel electric 1.4. Three-wheel electric 1.5. Stand-up electric 1.6. Walker stackers 1.7. Counter-balanced stacker 1.8. Scissor lifts 1.9. Order pickers 1.10. Pallet jacks 1.11. Telehandlers 1.12. Articulating boom lift 1.13. Straight boom lift 1.14. Side loader

Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.	
1. Critical aspects of competency	1.6.
2. Underpinning knowledge	2.1. Work planning and preparation
3. Underpinning skills	3.1. Planning and preparing work
4. Underpinning attitudes	4.1. Tidy and punctual 4.2. Prompt in carrying out activities 4.3. Sincere and honest concerning duties 4.4. Active on teamwork 4.5. Eager to learn 4.6. Concerned for proper use of tools 4.7. Committed to occupational health and safety practices 4.8. Respectful of peers, subordinates and seniors in the workplace 4.9. Communicate with peers and seniors in the workplace

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.

5. Resource implications

The following resources must be provided:

- 5.1. Workplace (simulated or actual)
- 5.2. Personal protective equipment (PPE)
- 5.3. Tools and equipment
- 5.4. Forklifts
- 5.5. Associated parts, accessories and attachments
- 5.6. Job specifications
- 5.7. Load handling documentation
- 5.8. Manufacturer's instructions/specifications
- 5.9. Standard operating procedure
- 5.10. Projector
- 5.11. Stationary
- 5.12. Learning manual

6. Methods of assessment

Methods of assessment may include but is not limited to:

- 6.1. Written test
- 6.2. Oral test
- 6.3. Observation
- 6.4. Demonstration
- 6.5. Portfolio

7. Context of assessment

- 7.1. Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency.
- 7.2. Assessment must be done by a suitably qualified/certified assessor.

Accreditation Requirements

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Unit Title:	Inspect and maintain crane and forklift
Unit Code:	SEIP-CON-CFO-05-O
Nominal Hours:	50 hours
Unit Descriptor:	This unit covers the skills, knowledge and attitudes required to inspect and maintain crane and forklift. It specifically includes inspecting tools and equipment, testing equipment functionality, identifying and assessing faults, and recording and reporting results.
Elements of Competency	Performance Criteria (<u>bold and underlined</u> terms are elaborated in the Range of Variables)
1. Inspect tools and equipment	<p>1.1. Tools and equipment are inspected prior to use as per standard operating procedure.</p> <p>1.2. Pre-operation functional safety check procedures are followed to ensure compliance with manufacturer's specifications.</p> <p>1.3. Damaged or faulty tools and equipment are recorded and reported to appropriate authority.</p>
2. Test equipment functionality	<p>2.1. Equipment is tested after start-up as per standard operating procedure in ensure manufacturer specification compliance.</p> <p>2.2. Warning and associated systems are checked for operational effectiveness.</p>
3. Identify and assess faults	<p>3.1. Faults are identified, and assessment is made of potential impact on work and operation of equipment.</p> <p>3.2. Identified faults that may affect safe operation of equipment and completion of work are recorded.</p>
4. Record and report results	<p>4.1. Inspection and testing results are recorded and reported as per standard operating procedure.</p> <p>4.2. Equipment identified as faulty is removed from service and tagged as unsafe for use.</p>

Range of Variables	
Variable	Range (<i>may include but not limited to</i>)
1. Faults	<p>1.1. Corrosion</p> <p>1.2. Misalignment</p> <p>1.3. Bearing failure</p> <p>1.4. Metal fatigue</p> <p>1.5. Pump failure</p> <p>1.6. Electrical</p> <p>1.7. Mechanical</p> <p>1.8. Wear and tear</p>

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.

1. Critical aspects of competency	<ul style="list-style-type: none">1.1. Inspected tools and equipment1.2. Followed pre-operation functional safety check procedures1.3. Tested equipment functionality1.4. Identified and assessed equipment faults1.5. Recorded and reported results
2. Underpinning knowledge	<ul style="list-style-type: none">2.2. Pre-operation functional safety check procedures
3. Underpinning skills	<ul style="list-style-type: none">3.5.
4. Underpinning attitudes	<ul style="list-style-type: none">4.1. Tidy and punctual4.2. Prompt in carrying out activities4.3. Sincere and honest concerning duties4.4. Active on teamwork4.5. Eager to learn4.6. Concerned for proper use of tools4.7. Committed to occupational health and safety practices4.8. Respectful of peers, subordinates and seniors in the workplace4.9. Communicate with peers and seniors in the workplace
5. Resource implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none">5.1. Workplace (simulated or actual)5.2. Personal protective equipment (PPE)5.3. Tools and equipment5.4. Manufacturer's instructions/specifications5.5. Standard operating procedure5.6. Projector5.7. Stationary5.8. Learning manual
6. Methods of assessment	<p>Methods of assessment may include but is not limited to:</p> <ul style="list-style-type: none">6.1. Written test6.2. Oral test6.3. Observation6.4. Demonstration6.5. Portfolio
7. Context of assessment	<ul style="list-style-type: none">7.1. Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency.7.2. Assessment must be done by a suitably qualified/certified assessor.

Evidence Guide

The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.

Accreditation Requirements

Training Providers must be accredited by Bangladesh Technical Education Board (BTEB), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any NTVQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by BTEB.

Unit Title:	Assess safety issues and risks
Unit Code:	SEIP-CON-CFO-06-O
Nominal Hours:	30 hours
Unit Descriptor:	This unit covers the skills, knowledge and attitudes related to assessing safety issues and risks. It specifically includes identifying safety issues and risks for crane and forklift operation, and reporting faulty tools, equipment and machinery.
Elements of Competency	Performance Criteria (<u>bold and underlined</u> terms are elaborated in the Range of Variables)
1. Identify safety issues and risks (crane operation)	<p>1.1. Safety requirements are identified and followed as per occupational health and safety policy.</p> <p>1.2. Appropriate personal protective equipment (PPE) is identified and checked for usability.</p> <p>1.3. Tools and equipment are identified and checked for serviceability.</p> <p>1.4. Crane and crane attachments are checked for safe and secure operation.</p> <p>1.5. Potential hazards, risks and environmental issues are identified and assessed.</p> <p>1.6. Control measures are identified and implemented to minimize or eliminate hazards and risks.</p> <p>1.7. <u>Safety precautions</u> are identified and observed and followed at all times during crane operations.</p>
2. Identify safety issues and risks (forklift operation)	<p>2.1. Safety requirements are identified and followed as per occupational health and safety policy.</p> <p>2.2. Appropriate personal protective equipment (PPE) is identified and checked for usability.</p> <p>2.3. Tools and equipment are identified and checked for serviceability.</p> <p>2.4. Forklift and forklift attachments are checked for safe and secure operation.</p> <p>2.5. Potential hazards, risks and environmental issues are identified and assessed.</p> <p>2.6. Control measures are identified and implemented to minimize or eliminate hazards and risks.</p> <p>2.7. <u>Safety precautions</u> are identified and observed and followed at all times during forklift operations.</p>
3. Report faulty tools, equipment and machinery	<p>3.1. Faulty tools, equipment and machinery are identified.</p> <p>3.2. Tools, equipment and machinery identified as faulty are removed from service and tagged as unsafe for use.</p> <p>3.3. Record is made of faulty tools, equipment and machinery including whether it is to be repaired or replaced.</p> <p>3.4. Report is prepared and submitted to appropriate authority as per standard operating procedure.</p>

Range of Variables	
Variable	Range (may include but not limited to)
1. Safety precautions	1.1. Use of personal protective equipment (PPE) 1.2. Proper use of tools and equipment 1.3. Inspection of working environment 1.4. Understanding of policies and procedures 1.5. Knowledge of standard operating procedure

Evidence Guide	
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1 Critical aspects of competency	1.1. Identify safety issues and risks 1.2. Assessed hazards and risks 1.3. Implemented control measures 1.4. Observed and followed safety precautions 1.5. Recorded and reported faulty tools equipment and machinery
2 Underpinning knowledge	2.9.
3 Underpinning skills	3.5.
4 Underpinning attitudes	4.1. Tidy and punctual 4.2. Prompt in carrying out activities 4.3. Sincere and honest concerning duties 4.4. Active on teamwork 4.5. Eager to learn 4.6. Concerned for proper use of tools 4.7. Committed to occupational health and safety practices 4.8. Respectful of peers, subordinates and seniors in the workplace 4.9. Communicate with peers and seniors in the workplace
5 Resource implications	The following resources must be provided: 5.1. Workplace (simulated or actual) 5.2. Personal protective equipment (PPE) 5.3. Tools and equipment 5.4. Standard operating procedure 5.5. Projector 5.6. Stationary 5.7. Learning manual

Evidence Guide

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6 Methods of assessment

Methods of assessment may include but is not limited to:

- 6.1. Written test
- 6.2. Oral test
- 6.3. Observation
- 6.4. Demonstration
- 6.5. Portfolio

7 Context of assessment

- 7.1. Competency assessment must be done in a training institute or an actual or simulated workplace after completion of this unit of competency.
- 7.2. Assessment must be done by a suitably qualified/certified assessor.

Accreditation Requirements

Training Providers must be accredited by Bangladesh Technical Education Board (BTEB), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any NTVQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by BTEB.