



COMPETENCY STANDARD
FOR
ROAD ROLLER OPERATION

Level: 3

(Construction Sector)

Competency Standard Code: CS-CS-RRO-L3-EN-V1



National Skills Development Authority
Prime Minister's Office
Government of the People's Republic of Bangladesh

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National Skills Development Authority

Prime Minister's Office

Level: 10-11, Biniyog Bhaban,

E-6 / B, Agargaon, Sher-E-Bangla Nagar Dhaka-1207, Bangladesh.

Email: ec@nsda.gov.bd

Website: www.nstda.gov.bd.

National Skills Portal: <http://skillsportal.gov.bd>

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This Competency Standard for **Road Roller Operation** 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 to meet the qualification of individuals who graduated through the established standard via competency-based assessment for a relevant job.

This document has been validated by NSDA in association with Construction Sector, industry representatives, academia, related specialist, trainer and related employee.

Public and private institutions may use the information contained in this standard for activities benefitting Bangladesh.

Introduction

The NSDA aims to enhance an individual's employability by certifying completeness with skills. NSDA works to expand the skilling capacity of identified public and private training providers qualitatively and quantitatively. It also aims to establish and operationalize a responsive skills ecosystem and delivery mechanism through a combination of well-defined set of mechanisms and necessary technical supports.

Key priority economic growth sectors identified by the government have been targeted by NSDA to improve current job skills along with 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 program. " **Road Roller Operation** " is selected as one of the priority occupations of Construction Sector. This standard is developed to adopt a demand driven approach to training with effective inputs from Industry Skills Councils (ISC's), employer associations and employers.

Generally, a competency standard informs curriculum, learning materials, assessment and certification of trainees enrolled in Skills Training. Trainees who successfully pass the assessment will receive a qualification in the National Skills Qualification Framework (NSQF) under Bangladesh National Qualification Framework and will be listed on the NSDA's online portal.

This competency standard 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. A series of stakeholder consultations, workshops were held to develop this document.

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 representative from NSDA, Key Institutions, ISC, and industry experts to identify the competencies required of an occupation in Construction Sector.

Competency standards describe the skills, knowledge and attitude needed to perform effectively in the workplace. CS acknowledge that people can achieve technical and vocational competency in many ways by emphasizing 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 guides

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

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.

**Competency Standards for National Skill Certificate, Level-3 in
Road Roller Operation of Construction Sector
Level Descriptors of NSQF (BNQF 1-6)**

Level & Job classification	Knowledge Domain	Skills Domain	Responsibility Domain
6-Mid-Level Manager/ Sub Assistant Engineer	Comprehensive actual and theoretical knowledge within a specific work or study area with an awareness of the validity and limits of that knowledge, able to analyse, compare, relate and evaluate.	Specialised and wider range of cognitive and practical skills required to provide leadership in the development of creative solutions to defined problems. Communicate professional issues and solutions to the team and to external partners/users.	Work under broad guidance and self-motivation to execute strategic and operational plan/s. Lead lower-level management. Diagnose and resolve problems within and among work groups.
5-Supervisor	Broad knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to scrutinize and break information into parts by identifying motives or causes.	Broad range of cognitive and practical skills required to generate solutions to specific problems in one or more work or study areas. Communicate practice-related problems and possible solutions to external partners.	Work under guidance of management and self-direction to resolve specific issues. Lead and take responsibility for the work and actions of group/team members. Bridge between management.
4-Highly Skilled Worker	Broader knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to solve problems to new situations by comparing and applying acquired knowledge.	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying the full range of methods, tools, materials and information. Communicate using technical terminology and IT technology with partners and users as per workplace requirements.	Work under minimal supervision in specific contexts in response to workplace requirements. Resolve technical issues in response to workplace requirements and lead/guide a team/ group.
3-Skilled Worker	Moderately broad knowledge in a specific work or study area, able to perceive ideas and abstract from drawing and design according to workplace requirements.	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools. Communicate with his team and limited external partners upholding the values, nature and culture of the workplace	Work or study under supervision with considerable autonomy. Participate in teams and responsible for group coordination.
2-Semi Skilled Worker	Basic understanding of underpinning knowledge in a specific work or study area, able to interpret and apply common occupational terms and instructions.	Skills required to carry out simple tasks, communicate with his team in the workplace presenting and discussing results of his work with required clarity.	Work or study under supervision in a structured context with limited scope of manipulation
1 –Basic Skilled Worker	Elementary understanding of ability to interpret the underpinning knowledge in a specific study area, able to interpret common occupational terms and instructions.	Specific Basic skills required to carry out simple tasks. Interpret occupational terms and present the results of own work within guided work environment/ under supervision.	Work under direct supervision in a structured context with limited range of responsibilities.

List of Abbreviations

CS	Competency Standard
ISC	Industry Skills Council
NSDA	National Skills Development Authority
NSQF	National Skills Qualifications Framework
OSH	Occupational Safety and Health
PPE	Personal Protective Equipment
SCVC	Standards and Curriculum Validation Committee
STP	Skills Training Provider
SOP	Standard Operating Procedure
UoC	Unit of Competency
ISO	International Organization for Standardization
MSDS	Material Safety Data Sheet
OSH	Occupational Safety and Health
PPE	Personal Protective Equipment
SOP	Standard Operating Procedures

Approved by

---th Executive Committee (EC) Meeting of NSDA

Held on -----

Deputy Director (Admin)

and

Officer of Secretarial Duties for EC meeting

National Skills Development Authority

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**Competency Standards for National Skill Certificate, Level- 3 of
Road Roller Operation in Construction Sector**

Course Structure

SL No	Unit code and Title		UOC Level	Nominal (hours)
Generic Units of Competencies				
1.	GU-02-L2-V1	Apply Occupational Safety and Health (OSH) Procedure in the Workplace	2	15
Sub Total				15
Sector Specific Units of Competencies				
2.	SU-CON-03-L2-V1	Use hand and power tools	2	15
Sub Total				15
Occupation Specific Units of Competencies				
3.	OU-CON-RRO-01-L3-V1	Prepare and organize work	3	25
4.	OU-CON-RRO-02-L3-V1	Prepare for road roller operations	3	25
5.	OU-CON-RRO-03-L3-V1	Operate road roller	3	120
6.	OU-CON-RRO-04-L3-V1	Carry out road roller operations	3	100
7.	OU-CON-RRO-05-L3-V1	Perform surface finishing work	3	50
8.	OU-CON-RRO-06-L3-V1	Repair and maintain road roller	3	40
Sub Total				360
Total Duration				390

Units & Elements at Glance

Generic Competencies

Code	Unit of competency	Elements of competency	Duration (hours)
GU-02-L2-V1	Apply Occupational Safety and Health (OSH) procedure in the Workplace	<ol style="list-style-type: none">1. Identify OSH policies and procedures2. Follow OSH procedure3. Report hazards and risks4. Respond to emergencies5. Maintain personal well-being	15
Total hours			15

Sector specific competencies

Code	Unit of competency	Elements of competency	Duration (hours)
SU-CON-03-L2-V1	Use hand and power tools	<ol style="list-style-type: none">1. Identify and inspect hand and power tools2. Use hand tools properly and safely3. Operate power tools properly and safely4. Clean and maintain hand and power tools	15
Total hours			15

Occupation specific competencies

Code	Unit of competency	Elements of competency	Duration (hours)
OU-CON-RRO-01-L3-V1	Prepare and organise work	<ol style="list-style-type: none"> 1 Plan and prepare for work. 2 Sequence the work process 3 Resolve problems. 4 Clean and maintain work. 	25
OU-CON-RRO-02-L3-V1	Prepare for road roller operations	<ol style="list-style-type: none"> 1 Identify work requirements. 2 Prepare for operations. 3 Collect tools and equipment. 	25
OU-CON-RRO-03-L3-V1	Operate road roller	<ol style="list-style-type: none"> 1 Plan and prepare for operations. 2 Operate road roller. 3 Clean and maintain machinery. 	120
OU-CON-RRO-04-L3-V1	Carry out road roller operations	<ol style="list-style-type: none"> 1 Identify work requirements. 2 Perform road roller operations. 3 Clean and maintain machinery. 	100
OU-CON-RRO-05-L3-V1	Perform surface finishing work	<ol style="list-style-type: none"> 1 Identify work requirements. 2 Perform surface finishing work. 3 Clean and maintain machinery. 	50
OU-CON-RRO-06-L3-V1	Repair and maintain road roller	<ol style="list-style-type: none"> 1 Diagnose problems. 2 Perform troubleshooting. 3 Carry out routine maintenance. 	40
Total Hours			360

Generic Units of Competencies

Unit Code and Title	GU-02-L2-V1: Apply Occupational Safety and Health (OSH) Procedure in the Workplace
Unit Descriptor	<p>This unit covers the knowledge, skills and attitudes required to apply occupational safety and health (OSH) procedure in the workplace.</p> <p>It specifically includes the task of identifying OSH policies and procedures, following OSH procedure, reporting hazards and risks, responding to emergencies and maintaining personal well-being.</p>
Nominal Hours	15 Hours
Elements of Competency	<p>Performance Criteria</p> <p><u>Bold & Underlined</u> terms are elaborated in the Range of Variables</p>
1. Identify OSH policies and procedures	<p>1.1. <u>OSH policies</u> and <u>safe operating procedures</u> are accessed and stated</p> <p>1.2. <u>Safety signs and symbols</u> are identified and followed</p> <p>1.3. Emergency response, evacuation procedures and other contingency measures are determined according to workplace requirements</p>
2. Follow OSH procedure	<p>2.1 <u>Personal protective equipment (PPE)</u> is selected and collected as required</p> <p>2.2 Personal protective equipment (PPE) is correctly used in accordance with organization OSH procedures and practices</p> <p>2.3 A clear and tidy workplace is maintained as per workplace standard</p> <p>2.4 PPE is maintained to keep them operational and compliant with OSH regulations</p>
3. Report hazards and risks	<p>3.1 <u>Hazards</u> and risks are identified, assessed and controlled</p> <p>3.2 Incidents arising from hazards and risks are reported to designated authority</p>
4. Respond to emergencies	<p>4.1 Alarms and warning devices are responded</p> <p>4.2 Workplace <u>emergency procedures</u> are followed</p> <p>4.3 <u>Contingency measures</u> during workplace accidents, fire and other emergencies are recognized and followed in accordance with organization procedures</p> <p>4.4 First aid procedures are applied during emergency situations</p>
5. Maintain personal well-being	<p>5.1 OSH policies and procedures are adhered to OSH awareness programs are participated in as per workplace guidelines and procedures.</p> <p>5.2 Corrective actions are implemented to correct unsafe condition in the workplace</p>

	5.3 “Fit to work” records are updated and maintained according to workplace requirements
Range of Variables	
Variables	Range (may include but not limited to):
1. OSH policies	1.1. Bangladesh standards for OSH 1.2. Fire Safety Rules and Regulations 1.3. Code of Practice 1.4. Industry Guidelines
2. Safe operating procedures	2.1 Orientation on emergency exits, fire extinguishers, fire escape, etc. 2.2 Emergency procedures 2.3 First Aid procedures 2.4 Tagging procedures 2.5 Use of PPE 2.6 Safety procedures for hazardous substances
3. Safety signs and symbols	3.1 Direction signs (exit, emergency exit, etc.) 3.2 First aid signs 3.3 Danger Tags 3.4 Hazard signs 3.5 Safety tags 3.6 Warning signs
4. Personal Protective Equipment (PPE)	4.1 Gas Mask 4.2 Gloves 4.3 Safety boots 4.4 Face mask 4.5 Overalls 4.6 Goggles and safety glasses 4.7 Sun block 4.8 Chemical/Gas detectors
5. Hazards	5.1 Chemical hazards 5.2 Biological hazards 5.3 Physical Hazards 5.4 Mechanical and Electrical Hazard 5.5 Mental hazard 5.6 Ergonomic hazard
6. Emergency procedures	6.1 Fire fighting 6.2 Earthquake 6.3 Medical and first aid 6.4 Evacuation

7. Contingency measures	7.1 Evacuation 7.2 Isolation 7.1 Decontamination
8. "Fit to Work" records	8.1 Medical Certificate every year 8.2 Accident reports, if any 8.3 Eye vision certificate
Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	
1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 stated OSH policies and safe operating procedures 1.2 followed safety signs and symbols 1.3 used personal protective equipment (PPE) 1.4 maintained workplace clear and tidy 1.5 assessed and Controlled hazards 1.6 followed emergency procedures 1.7 followed contingency measures 1.8 implemented corrective actions
2. Underpinning knowledge	2.1 Define OSH 2.2 OSH Workplace Policies and Procedures 2.3 Work safety procedures 2.4 Emergency procedures 2.5 Hazard control procedure 2.6 Different types of hazards 2.7 PPE and there uses 2.8 Personal hygiene practices 2.9 OSH awareness
3. Underpinning skills	3.1 Accessing OSH policies 3.2 Using of PPE 3.3 Handling cleaning tools and equipment 3.4 Writing report 3.5 Responding to emergency procedures
4. Required attitude	4.1 Commitment to occupational health and safety 4.2 Sincere and honest to duties 4.3 Promptness in carrying out activities 4.4 Environmental concerns 4.5 Eagerness to learn 4.6 Tidiness and timeliness 4.7 Respect of peers and seniors in workplace 4.8 Communicate with peers and seniors in workplace

5. Resource implications	5.1 Workplace 5.2 Equipment and outfits appropriate in applying safety measures 5.3 Tools, equipment, materials and documentation required 5.4 OSH Policies and Procedures
6. Methods of assessment	Competency should be assessed by: 6.1 Written test 6.2 Demonstration 6.3 Oral questioning
7. Context of assessment	7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated assessor
<p>Accreditation Requirements</p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), 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 qualification under NSQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

Sector Specific Units of Competencies

Unit Code and Title	SU-CON-03-L2-V1: Use Hand and Power Tools
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.
Nominal Hours	15 Hours
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	1.1 Appropriate hand and power tools are identified. 1.2 Application of hand and power tools is recognized. 1.3 Usability of hand and power tools is checked and verified.
2. Use hand tools properly and safely	2.1 Appropriate <u>hand tools</u> are selected. 2.2 Safety precautions are ensured before using hand tools. 2.3 Unsafe or faulty hand tools are identified and marked for repair. 2.4 <u>Measuring tools</u> are checked and calibrated before use. 2.5 Use hand tools properly and safely to perform work activity
3. Operate power tools properly and safely	3.1 Appropriate <u>power tools</u> are selected. 3.2 Power supply outlet and electrical cord are inspected and confirmed safe for use in accordance with established workplace safety requirements. 3.3 Safety precautions are ensured before using power tools in accordance with manufacturer's operating specification. 3.4 Proper sequence of operation applied for using power tools. 3.5 Unsafe or faulty power tools are identified and marked for repair. 3.6 Operate power tools properly and safely to perform work activity.
Range of Variables	
Variables	Range (may include but not limited to):
1. Hand tools	1.1 Hacksaw 1.2 Hammer 1.3 Files 1.4 Pliers 1.5 Punches 1.6 Screwdrivers 1.7 Wrench box

	<ul style="list-style-type: none"> 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
<p>Evidence Guide</p> <p>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>Assessment required 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
2. Underpinning knowledge	<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

3. Underpinning skills	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
4. Underpinning attitudes	4.1 Commitment to occupational health and safety 4.2 Environmental concerns 4.3 Eagerness to learn 4.4 Tidiness and timeliness 4.5 Respect for rights of peers and seniors in workplace
5. Resource implications	The following resources must be available: 5.1 workplace (actual or simulated) 5.2 tools, equipment, materials and physical facilities appropriate to perform activities 5.3 relevant drawings, manuals and reference materials 5.4 required PPE.
6. Methods of assessment	Competency should be assessed by 5.1 Demonstration 5.2 Oral questioning 5.3 Written test
7. Context of assessment	5.1 Competency assessment must be done in NSDA accredited assessment centre 5.2 Assessment should be done by a NSDA certified/nominated assessor

Accreditation Requirements

Training Providers must be accredited by National Skills Development Authority (NSDA), 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 NSQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Occupation Specific Units of Competencies

Unit Code and Title	OU-CON-RRO-01-L3-V1: Prepare and organize work
Unit Descriptor	This unit covers the skills, knowledge and attitudes related to prepare and organize work. It specifically includes preparing for work, sequencing the work process, resolving problems, and cleaning and maintaining work area.
Nominal Hours	25 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. 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 and selected.</p> <p>1.6 <u>Types of road roller</u> are identified and selected appropriate to job requirement.</p>
2. Sequence the work process	<p>2.1 Job requirement is reviewed to perform task efficiently</p> <p>2.2 Compliance documentation is completed and submitted to concern 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, equipment and machinery 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, equipment and machinery is recorded and reported.</p>
Range of Variables	
Variable	Range (may include but not limited to):

1. Quality requirements	<ul style="list-style-type: none"> 1.1 Local standards 1.2 Company quality policy 1.3 Manufacturer standards 1.4 International standards 1.5 Standard operating procedure
2. Types of road roller	<ul style="list-style-type: none"> 2.1 Cylindrical 2.2 Sheepsfoot 2.3 Pneumatic 2.4 Smooth-wheeled 2.5 Vibratory 2.6 Grid
<p>Evidence Guide</p> <p>The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.</p>	
1. Critical aspects of competency	<p>Assessment required evidences that the candidate:</p> <ul style="list-style-type: none"> 1.1 Planned and prepared for work 1.2 Identified quality requirements 1.3 Identified tools and equipment 1.4 Identified types of road roller 1.5 Sequenced work safely 1.6 Identified problems with work processes and solutions 1.7 Cleaned and maintained tools and equipment 1.8 Cleaned and maintained work area
2. Underpinning knowledge	<ul 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 Type and application of road rollers 2.6 Compliance documents 2.7 Work processes 2.8 Cleaning and maintenance procedures
3. Underpinning skills	<ul style="list-style-type: none"> 3.1 Preparing for work 3.2 Identifying and interpreting quality requirements 3.3 Sequencing work of work process 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

4. Required attitudes	<ul style="list-style-type: none"> 4.1 Commitment to occupational safety and health. 4.2 Promptness in carrying out activities. 4.3 Sincere and honest to duties. 4.4 Eagerness to learn. 4.5 Tidiness and timeliness. 4.6 Environmental concerns. 4.7 Respect for rights of peers and seniors at workplace. 4.8 Communication with peers and seniors at workplace.
5. Resources implication	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 5.1 workplace (actual or simulated) 5.2 materials relevant to the proposed activity 5.3 drawings and specifications relevant to the task 5.4 measurement tools relevant to the proposed activity.
6. Methods of assessment	<p>Methods of assessment may include but not limited to:</p> <ul style="list-style-type: none"> 6.1 written test 6.2 demonstration 6.3 oral questioning
7. Context for assessment	<ul style="list-style-type: none"> 7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/ nominated assessor
<p>Accreditation Requirements</p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), 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 qualification under NSQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

Unit Code and Title	OU-CON-RRO-02-L3-V1: Prepare for Road Roller Operations
Unit Descriptor	This unit covers the skills, knowledge and attitudes required to prepare for road roller operations. It specifically includes identifying work requirements, preparing for operations, and collecting tools and equipment.
Nominal Hours	25 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Identify work requirements	1.1 Work requirements are interpreted and clarified if needed. 1.2 <u>Compliance documentation</u> is accessed and completed. 1.3 Road roller is selected as per job specification. 1.4 Operating capacity and tolerances of road roller are identified and interpreted.
2. Prepare for operations	2.1 Work area is inspected and prepared as per job requirement 2.2 Potential <u>hazards and risks</u> are identified. 2.3 Control measures are implemented to eliminate or reduce hazard or risk. 2.4 Roles and responsibilities of team are identified and employed prior to, during and after completion of road roller operations
3. Collect tools and equipment	3.1 Tools and equipment as per job requirement are collected and checked for serviceability. 3.2 Appropriate <u>personal protective equipment (PPE)</u> as per job requirement is collected
Range of Variables	
Variable	Range (may include but not limited to):
1. Compliance documentation	1.1 Legal 1.2 Manufacturer (guidelines/specifications) 1.3 Employer 1.4 Work health and safety
2. Hazards and risks	2.1 Utility Service Lines (Gas, Electricity, Water and Sewerage lines etc.) 2.2 Pit walls 2.3 Weather 2.4 Blind holes 2.5 Potholes 2.6 Overhanging rocks

	<ul style="list-style-type: none"> 2.7 Unstable footing 2.8 Debris 2.9 Blind spots
3. Personal protective equipment (PPE)	<ul style="list-style-type: none"> 3.1 Safety helmet 3.2 Safety goggles 3.3 Ear plugs 3.4 Gloves 3.5 High visibility vest 3.6 Shoes
Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.	
1. Critical aspect of competency	<p>Assessment required evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Interpreted work requirements 1.2 Completed compliance documentation 1.3 Prepared for operations 1.4 Identified potential hazards and risks 1.5 Implemented control measures 1.6 Collected tools and equipment (including PPE)
2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1 Road rollers 2.2 Operating capacity and tolerances 2.3 Compliance documentation 2.4 Workplace hazards and risks 2.5 Control measures 2.6 Roles and responsibilities of team 2.7 Tools and equipment 2.8 Personal protective equipment (PPE)
3. Underpinning skills	<ul style="list-style-type: none"> 3.1 Identifying work requirements 3.2 Accessing and completing compliance documentation 3.3 Preparing for operations 3.4 Identifying hazards and risks 3.5 Implementing control measures 3.6 Collecting tools and equipment (including PPE) 3.7 Checking tools and equipment for serviceability.

4. Required attitudes	<ul style="list-style-type: none"> 4.1 Commitment to occupational safety and health. 4.2 Promptness in carrying out activities. 4.3 Sincere and honest to duties. 4.4 Eagerness to learn. 4.5 Tidiness and timeliness. 4.6 Environmental concerns. 4.7 Respect for rights of peers and seniors at workplace. 4.8 Communicate with peers and seniors at workplace.
5. Resource implication	<p>The following resources must be available:</p> <ul style="list-style-type: none"> 5.1 workplace (actual or simulated) 5.2 materials relevant to the proposed activity 5.3 hand tools and power tools to appropriate activity 5.4 measurement tools relevant to the proposed activity.
6. Methods of assessment	<p>Methods of assessment may include but not limited to:</p> <ul style="list-style-type: none"> 6.1 written test 6.2 demonstration 6.3 oral questioning
7. Context of assessment	<ul style="list-style-type: none"> 7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by NSDA certified/nominated assessor.
<p>Accreditation Requirements</p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), 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 qualification under NSQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

Unit Code and Title	OU-CON-RRO-03-L3-V1: Operate Road Roller
Unit Descriptor	This unit covers the skills, knowledge and attitudes required to operate road roller. It specifically includes planning and preparing for operations, identifying major parts of road roller operating road roller, and cleaning and maintaining machinery.
Nominal Hours	120 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlines</u> terms are elaborated in the Range of Variables
1. Plan and prepare for operations	<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> <p>1.6 Attachments for road roller operation are identified and collected as per job requirement.</p>
2. Identify major parts of road roller	<p>2.1 <u>Major parts</u> of road roller are identified;</p> <p>2.2 Major parts of road roller are interpreted;</p>
3. Operate road roller	<p>3.1 Unload road roller from trailer safely and securely.</p> <p>3.2 <u>Pre -start check</u> is carried out to ensure equipment is ready for operation.</p> <p>3.3 Drive and operate road roller and modify operating technique to meet changing work conditions.</p> <p>3.4 Adjust interchangeable drums, bars, brooms, and/or blades for operational effectiveness and efficiency.</p> <p>3.5 Load road roller onto trailer safely and securely.</p>
4. Clean and maintain machinery	<p>2.1 Road roller is cleaned and maintained as per standard operating procedure.</p> <p>2.2 Attachments are cleaned, maintained and stored as per standard operating procedure.</p>
Range of Variables	
Variable	Range (may include but not limited to):

1. Pre-start check	1.1 Air-filter restriction indicator 1.2 Display instrumentation (indicators, gauges, laser levels) 1.3 Engine and stop engine lights (orange and red) 1.4 Fluid levels (windscreen, oil, water, coolant, fuel) 1.5 Visual and audio warning lights and alarms
2. Major parts	1.6 Fuel pump 1.7 Filters 1.8 Radiators 1.9 Dynamo 1.10 Self-starter 1.11 Clutch plate 1.12 Pressure plate 1.13 Fly wheel 1.14 Piston 1.15 Piston ring 1.16 Dash board 1.17 Radiator hose pipe and cap
Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.	
1. Critical aspect of competency	Assessment required evidences that the candidate: <ol style="list-style-type: none"> 1.1 Planned and prepared for operations 1.2 Unloaded road roller from trailer 1.3 Conducted pre-start checks 1.4 Identified major parts of road roller 1.5 Operated road roller 1.6 Adjusted drums, bars, brooms and blades 1.7 Loaded road roller onto trailer 1.8 Cleaned and maintained road roller 1.9 Cleaned, maintained and stored attachments
2. Underpinning knowledge	<ol style="list-style-type: none"> 2.1 Work planning and preparation 2.2 Personal protective equipment (PPE) 2.3 Tools and equipment 2.4 Major parts of road roller 2.5 Operation of road rollers 2.6 Road roller attachments 2.7 Pre-start check procedure 2.8 Load and unloading protocol 2.9 Cleaning and maintenance procedure 2.10 Standard operating procedure

3. Underpinning skills	<ul style="list-style-type: none"> 3.1 Preparing for road roller operations 3.2 Loading and unloading road roller 3.3 Carrying out pre-start checks 3.4 Identifying major parts 3.5 Operating road roller 3.6 Adjusting road roller attachments 3.7 Cleaning and maintaining road roller 3.8 Cleaning, maintaining and storing road roller attachments
4. Required attitudes	<ul style="list-style-type: none"> 2.1 Commitment to occupational safety and health. 2.2 Sincere and honest to duties. 2.3 Promptness in carrying out activities. 2.4 Eagerness to learn. 2.5 Tidiness and timeliness. 2.6 Environmental concerns. 2.7 Respect of peers and seniors at workplace. 2.8 Communicate with peers and seniors at workplace.
5. Resource implication	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 3.1 workplace (actual or simulated) 3.2 materials relevant to the proposed activity 3.3 hand tools and power tools to appropriate activity.
6. Methods of assessment	<p>Methods of assessment may include but not limited to:</p> <ul style="list-style-type: none"> 4.1 written test 4.2 demonstration 4.3 oral questioning
7. Context of assessment	<ul style="list-style-type: none"> 5.1 Competency assessment must be done in NSDA accredited assessment centre 5.2 Assessment should be done by a NSDA certified/nominated assessor
<p>Accreditation Requirements</p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), 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 qualification under NSQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA</p>	

Unit Code and Title	OU-CON-RRO-04-L3-V1: Carry out road roller operations
Unit Descriptor	This unit covers the skills, knowledge and attitudes required to carry out road roller operations. It specifically includes identifying work requirements, performing road roller operations, and cleaning and maintaining machinery.
Nominal Hours	100 Hours
Elements of Competency	Performance Criteria <u>Bold and Underlined</u> terms are elaborated in the Range of Variables
1. Identify work requirements	1.1 Work requirements are interpreted and clarified if needed. 1.2 Compliance documentation is accessed and completed. 1.3 Road roller is selected as per job specification. 1.4 Operating capacity and tolerances of road roller are identified and interpreted
2. Perform road roller operations	2.1 Start-up, parking and shutdown procedure is carried out. 2.2 <u>Work area</u> and <u>conditions</u> are assessed to apply appropriate operating technique. 2.3 <u>Contaminants</u> are identified and removed from work area. 2.4 Road roller is operated safely and within operating capacity and tolerances. 2.5 Work area is compacted as per job specification. 2.6 <u>Instruments and gauges</u> are consistently checked to ensure smooth operation.
3. Clean and maintain machinery	3.1 Road roller is cleaned and maintained as per standard operating procedure. 3.2 Attachments are cleaned, maintained and stored as per standard operating procedure. 3.3 Maintenance records and other documentation are completed and submitted to relevant authority
Range of Variables	
Variable	Range (may include but not limited to):
1. Work area	1.1 Gravel 1.2 Road base 1.3 Asphalt 1.4 Sand 1.5 Topsoil

2. Conditions	<ul style="list-style-type: none"> 2.1 Day/night 2.2 Compaction rate 2.3 Location of water table 2.4 Surface slope 2.5 Ground stability 2.6 Ground texture 2.7 Underground services
3. Contaminants	<ul style="list-style-type: none"> 3.1 Consumables 3.2 Metal 3.3 Old fencing/piping 3.4 Plastic 3.5 Timber 3.6 Carcasses 3.7 Debris
4. Instruments and gauges	<ul style="list-style-type: none"> 4.1 Brake air pressure 4.2 Brake oil pressure 4.3 Engine oil pressure 4.4 Fuel filter 4.5 Parking brake 4.6 Retarder 4.7 Speedometer 4.8 Odometer 4.9 Steering filters 4.10 Tachometer 4.11 Voltmeter 4.12 Water temperature 4.13 Fuel level
<p>Evidence Guide</p> <p>The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.</p>	
1. Critical aspects of competency	<p>Assessment required evidences that the candidate:</p> <ul style="list-style-type: none"> 1.1 Identified work requirements 1.2 Interpreted operating capacity and tolerances 1.3 Assessed work area and conditions 1.4 Removed contaminants 1.5 Carried out start-up, park and shutdown procedure 1.6 Performed road roller operations 1.7 Cleaned and maintained machinery 1.8 Completed maintenance records

2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1 Tools and equipment 2.2 Personal protective equipment (PPE) 2.3 Road rollers 2.4 Attachments 2.5 Operating capacity and tolerances 2.6 Compaction 2.7 Work conditions 2.8 Instruments and gauges 2.9 Cleaning and maintenance procedure 2.10 Standard operating procedure
3. Underpinning skills	<ul style="list-style-type: none"> 3.1 Interpreting work requirements 3.2 Carrying out start-up, parking and shutdown procedure 3.3 Assessing work area and conditions 3.4 Removing contaminants 3.5 Performing road roller operations 3.6 Cleaning and maintaining machinery 3.7 Completing maintenance records and other documentation
4. Required attitudes	<ul style="list-style-type: none"> 4.1 Commitment to occupational safety and health. 4.2 Sincere and honest to duties. 4.3 Promptness in carrying out activities. 4.4 Eagerness to learn. 4.5 Tidiness and timeliness. 4.6 Environmental concerns. 4.7 Respect to peers and seniors at workplace. 4.8 Communicate with peers and seniors at workplace.
5. Resource implication	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 5.1 workplace (actual or simulated) 5.2 construction materials 5.3 tools appropriate to the construction process 5.4 information and documentation 5.5 product specifications 5.6 manual, codes, standards and reference materials.
6. Methods of assessment	<p>Methods of assessment may include but not limited to:</p> <ul style="list-style-type: none"> 6.1 written test 6.2 demonstration 6.3 oral questioning 6.4 portfolio.
7. Context for assessment	<ul style="list-style-type: none"> 7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated assessor

Accreditation Requirements

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Unit Code and Title	OU-CON-RRO-05-L3-V1: Perform Surface Finishing Work
Unit Descriptor	This unit covers the skills, knowledge and attitudes required to perform surface finishing work. It specifically includes identifying work requirements, performing surface finishing work, and cleaning and maintaining machinery.
Nominal Hours	50 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Identify work requirements	<p>1.1 Work requirements are interpreted and clarified if needed.</p> <p>1.2 Compliance documentation is accessed and completed.</p> <p>1.3 Road roller is selected as per job specification.</p> <p>1.4 Operating capacity and tolerances of road roller are identified and interpreted.</p>
2. Perform surface finishing work	<p>2.1 Number of passes required over surface is confirmed and completed.</p> <p>2.2 <u>Compaction process</u> is assessed to ensure uniform compaction across surface is achieved as per requirement;</p> <p>2.3 Surface trimming is checked to ensure specified tolerances are reached as per requirement;</p>
3. Clean and maintain machinery	<p>1.1 Road roller is cleaned and maintained as per standard operating procedure.</p> <p>1.2 Attachments are cleaned, maintained and stored as per standard operating procedure.</p> <p>1.3 Maintenance records and other documentation are completed and submitted to relevant authority.</p>
Range of Variables	
Variable	Range (may include but not limited to):
1. Compaction process	<p>1.1 Density</p> <p>1.2 Height</p> <p>1.3 Length</p> <p>1.4 Depth</p> <p>1.5 Camber</p> <p>1.6 Material</p>

Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.	
1. Critical aspect of competency	<p>Assessment required evidences that the candidate:</p> <ul style="list-style-type: none"> 1.1 Identified work requirements 1.2 Performed surface finishing work 1.3 Assessed compaction 1.4 Checked surface trimming 1.5 Cleaned and maintained machinery
2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1 Tools and equipment 2.2 Personal protective equipment (PPE) 2.3 Road rollers 2.4 Attachments 2.5 Compaction 2.6 Specified tolerances 2.7 Cleaning and maintenance procedure 2.8 Standard operating procedure
3. Underpinning skills	<ul style="list-style-type: none"> 3.1 Planning and preparing for work 3.2 Performing surface finishing work 3.3 Assessing compaction 3.4 Identifying specified tolerances 3.5 Checking surface trimming 3.6 Cleaning and maintaining machinery
4. Required attitudes	<ul style="list-style-type: none"> 4.1 Commitment to occupational safety and health. 4.2 Promptness in carrying out activities. 4.3 Sincere and honest to duties. 4.4 Eagerness to learn. 4.5 Tidiness and timeliness. 4.6 Environmental concerns. 4.7 Respect for rights of peers and seniors at workplace. 4.8 Communicate with peers and seniors at workplace.
5. Resource implication	<p>The following resources must be available:</p> <ul style="list-style-type: none"> 5.1 workplace (actual or simulated) 5.2 construction materials 5.3 tools appropriate to the construction process 5.4 information and documentation 5.5 product specifications 5.6 manual, codes, standards and reference materials.

6. Methods of assessment	<p>Methods of assessment may include but not limited to:</p> <p>6.1 written test</p> <p>6.2 demonstration</p> <p>6.3 oral questioning</p> <p>6.4 portfolio.</p>
7. Context of assessment	<p>7.1 Competency assessment must be done in NSDA accredited assessment centre</p> <p>7.2 Assessment should be done by a NSDA certified/nominated assessor</p>
<p>Accreditation Requirements</p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), 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 qualification under NSQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

Unit Code and Title	OU-CON-RRO-06-L3-V1: Repair and Maintain Road Roller
Unit Descriptor	This unit covers the skills, knowledge and attitudes required to repair and maintain road roller. It specifically includes diagnosing problems, performing troubleshooting, and carrying out routine maintenance.
Nominal Hours	40 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Diagnose problems	1.1 Road roller and attachments are checked for faults and/or damage. 1.2 Components are examined, tested and diagnosed as per manufacturer's guidelines. 1.3 Maintenance requirements are identified and recorded as per standard operating procedure.
2. Perform troubleshooting	2.1 Interchangeable components are adjusted properly and safely. 2.2 Compacting devices are engaged and disengaged. 2.3 Contaminants are identified and removed. 2.4 Operating limitations are modified to suit work conditions. 2.5 Driving technique is changed to suit compaction material.
3. Carry out routine maintenance	3.1 <u>Machinery</u> is inspected and maintenance requirements determined. 3.2 Machinery is prepared for routine servicing and maintenance work. 3.3 Routine servicing and maintenance are carried out as per standard operating procedure. 3.4 Service and maintenance records are completed
Range of Variables	
Variable	Range (may include but not limited to):
1. Machinery	1. Road roller 2. Attachments (bars, drums, blades, brooms, padfoot)
Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.	

1. Critical aspect of competency	<p>Assessment required evidences that the candidate:</p> <ul style="list-style-type: none"> 1.1 Diagnosed problems 1.2 Performed troubleshooting 1.3 Carried out routine maintenance
2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1 Tools and equipment 2.2 Components 2.3 Road rollers 2.4 Attachments 2.5 Troubleshooting techniques 2.6 Operating limitations 2.7 Manufacturer's specifications 2.8 Maintenance process 2.9 Standard operating procedure
3. Underpinning skills	<ul style="list-style-type: none"> 3.1 Diagnosing problems 3.2 Examining and testing components 3.3 Performing troubleshooting 3.4 Carrying out routine maintenance 3.5 Completing maintenance records
4. Required attitudes	<ul style="list-style-type: none"> 4.1 Commitment to occupational safety and health. 4.2 Promptness in carrying out activities. 4.3 Sincere and honest to duties. 4.4 Eagerness to learn. 4.5 Tidiness and timeliness. 4.6 Environmental concerns. 4.7 Respect for rights of peers and seniors at workplace. 4.8 Communicate with peers and seniors at workplace.
5. Resource implication	<p>The following resources must be available:</p> <ul style="list-style-type: none"> 5.1 workplace (actual or simulated) 5.2 tools and equipment appropriate to maintain workplace 5.3 materials relevant to the proposed activity 5.4 equipment and outfits appropriate in applying safety measures 5.5 relevant drawings, manuals, codes, standards and reference material.
6. Methods of assessment	<p>Methods of assessment may include but not limited to:</p> <ul style="list-style-type: none"> 6.1 written test 6.2 demonstration 6.3 oral questioning
7. Context of assessment	<ul style="list-style-type: none"> 7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated assessor

Accreditation Requirements

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Development of Competency Standard

The Competency Standards for National Skills Certificate in Road Roller Operation, Level-3 is developed by experts from various roads highway work-oriented government and non-government firms on September-October 2018

List of Members

Sl No	Name and Address	Position in the committee
1	Md. Akkas Ali, Sub-Assistant Engineer, Roads and Highways – Mechanical Division	Member
1.	Nibir Kanti Sarker, Head, Machinery Division, Project Builders Ltd (PBL)	Member
2.	S.M. Jamal, Deputy Manager, Bangla CAT	Member
3.	Abdur Rob Khondoker, Engineer, Roads and Highways – Mechanical Division	Member
4.	Md. Mazibur Rahman, Chief Engineer, Monico Limited	Member
5.	Md. Moslem Uddin, Trainer, Skills Development Institute	Member
6.	Md. Sayedur Rahman, National Subject Matter Consultant - Construction Sector	Member
7.	Md. Mohiuddin Ahmed, Sr. Site Engineer, Samsuddin Mia & Associates Ltd. British Council - SD03	Member

Validation of Competency Standard

The Competency Standards for National Skills Certificate in Road Roller Operation, Level- 3 is validated by NSDA 18 January 2023.

List of Members of SCVC

Sl No	Name and Address	Position in the committee	Signature
1	Sk Abdul Mannan, CEO, CISC, Email: ceo.cisc@gmail.com , Mobile: 01712983203	Chairperson	
2	Md. Farid Hossain, Project Engineer, BTI Ltd. Dhaka, Mobile: 01817636816, Email: farid2015bti@gmail.com	Member	
3	S.M Jamal, Manager (Machine Sales), Bangla Trac Ltd. Mobile: 01755515069, Email: sm.jamal@banglacad.com	Member	
4	Md. Akkas Ali, Sub Asstt. Engineer, RHD Equipment Control Division, Sarak Bhavan, Dhaka Mobile: 01738340006, Email: mdakkasali970069@gmail.com	Member	
5	Md Homayun Kabir, Mechanic RHD Workshop Division, Sarak Bhavan Dhaka, Mobile: 01719680032,	Member	
6	Md Jalal Uddin, Operator, RHD Equipment Control Division, Sarak Bhavan, Dhaka Mobile: 01728367616,	Member	
7	Engr. Abdur Razzaque, Specialist-01, NSDA, Mobile: +88 01742734313, Email: razzaque159@gmail.com	Member	

Workshop Minutes

Government of the People's Republic of Bangladesh

Prime Minister's Office

National Skills Development Authority

Level: 10-11, Biniyog Bhaban,

E-6 / B, Agargaon, Sher-E-Bangla Nagar Dhaka-1207, Bangladesh.

Email: ec@nsda.gov.bd

Website: www.nstda.gov.bd

Minutes of the Competency Standard Validation Workshop on “Road Roller Operation” Occupation.

Chairman	: Sk Abdul Mannan, CEO, CISC,
Date	: 18 January 2023
Time	: 9:00 am - 4:00 pm
Place	: ISC Conference Room, NSDA, Biniyog Bhaban, Agargaon, Dhaka-1207

The Chairman inaugurated the workshop by welcoming the expert participants attended in the workshop. He urges the participants to share their expert opinion to make the standard effective, job market responsive and updated one. During the day-long workshop, the competency standard of

“Road Roller Operation” occupation was reviewed, modified and finalized in detail.

The following changes and modification were made to validate and finalize the competency standard.

Serial No.	Content of validation	Whether it was appropriate		What actions have been taken if not appropriate?
		Yes	No.	
1.	Name and level of occupation	Yes		
2.	Nominal Hour	Yes		360 hours
3.	Unit of Competency		No.	<ul style="list-style-type: none">Out 7 UoC, name of 4 UoC have changed and nominal also changed
4.	Element		No.	<ul style="list-style-type: none">Total 09 elements are edited

				<ul style="list-style-type: none"> • 03 element is added or deleted
5.	Performance Criteria		No.	<ul style="list-style-type: none"> • Total 22 performance criteria edited and finetuned as per elements
6.	Variables		No.	<ul style="list-style-type: none"> • 32 new variables are added
7.	Critical Aspect of Competence		No.	<ul style="list-style-type: none"> • Necessary changes have been made in the critical aspect of competency according to above changes.
8.	Underpinning knowledge		No.	<ul style="list-style-type: none"> • Necessary changes have been made in the underpinning knowledge according to above changes.
9.	Underpinning Skills		No.	<ul style="list-style-type: none"> • Necessary addition, changes and fine tuning have been made.
10.	Attitude	Yes		
11.	Resources	Yes		
12.	Assessment methods	Yes		
13.	Others			<ul style="list-style-type: none"> • The nominal hours of the units of competencies have been rescheduled for content consideration. • Overall, the occupation has been included in Level-3 according to NSQF (BNQF 1-6).

Through the above activities, the Competency Standard has been finalized and validated as “**Road Roller Operation**”

Chairman

Committee on Standard and Curriculum
Validation,

CEO – Construction ISC