



**Maldives National Skills Development Authority**



# **National Competency Standard for Powerhouse Operations**

**Standard Code: CON-16L3-V1-25**

**Qualification Name: National Certificate III in Powerhouse Operations**

## FOREWORD

The pivotal role of the Maldives National Skills Development Authority (MNSDA) in meticulously implementing and expanding Technical and Vocational Education & Training (TVET) exemplifies the steadfast commitment of the Maldives to build a skilled and resilient workforce. This commitment is evident from the strategic formulation of National Standards and the establishment of a comprehensive framework for training and certification.

Under the Higher Education and Training Act 7/2021, the MNSDA assumes an instrumental role, reflecting the government's unwavering dedication to streamlining TVET policies and procedures. This includes the establishment of a robust system for accrediting and registering both Institution Based Training (IBT) and Employer Based Training (EBT) providers. The MNSDA's active involvement in conducting the National Apprenticeship Program (NAP), National Trade Testing and Certification (NTTC), and the issuance of National Certificates reflects a comprehensive approach to ensure elevated quality standards and competency within the workforce.

The National Competency Standards (NCS) revised through the Maldives Enhancing Employability and Resilience of Youth (MEERY) project accentuates the commitment to updating and sustaining contemporary skill sets aligned precisely with industry demands. Deliberate efforts to revise existing NCS, coupled with the development of curriculum, teaching materials, resource books, and logbooks, attest to our dedication to ensuring the ongoing relevance and currency of the TVET system in the Maldives.

The active engagement of Technical Panels and Employment Sector Councils in the NCS development and approval process, coupled with alignment to the Maldives National Qualification Framework (MNQF) and accreditation by the Maldives Qualifications Authority (MQA), certifies that the TVET system not only remains highly responsive but also ensures the quality standards demanded by industries. This approach enables the system to effectively meet the diverse needs of industries and adapt to the evolving economic landscape.

The collaborative development of the National Certificate III in Powerhouse Operations by the MNSDA, MEERY, and the Maldives Institute of Technology exemplifies the practical implementation of TVET initiatives. This training package represents a critical stride towards addressing the requisite skills while fostering opportunities to integrate sustainable economic development within the TVET framework.



Dr. Zahra Mohamed

Chief Executive Officer

Maldives National Skills Development Authority

### EMPLOYMENT SECTOR COUNCILS

#	Name	Designation	Organisation
01	Ahmed Thalhath	Director General	Ministry of Construction and Infrastructure
02	Adnan Haleem	Secretary General	Maldives National Association of Construction Industry
03	Mohamed Rasheed	Director	Housing Development Corporation
04	Mohamed Waheed	Lecturer	Maldives Polytechnic
05	Hussain Shiyam	Civil Engineer	Civil Engineers Association
06	Ibrahim Shareef Hassan	Training Expert	-
07	Mohamed Yoosuf	Professional Member	Architects Association of Maldives
08	Shakeeba Ali	Director General	Maldives National Skills Development Authority
09			

**National Occupational Standard has been endorsed by:**



Adnan Haleem  
Chair person  
Construction Sector Council

Maldives National Skills Development Authority  
Umar Zahir Office Building, 5th Floor,  
OrchidMaa Hingun, Hulhumale', Republic of Maldives.

Date of Endorsement:

### TECHNICAL SUPPORT

#	Name	Designation	Organisation
01			
02			

TECHNICAL PANEL MEMBERS			
#	Name	Designation	Organisation
01	SanaullahShakeeb	Engineer Lecturer	Maldives Airports Company PVT MALdives Institute of Technology
02	Ahmed Naufal	Engineer	Utility Regulatory Authority
03	Ibrahim Shaheen	Assistant Manager Lecturer	Maldives Airports Company PVT MALdives Institute of Technology
04	Ahmed Ibrahim	Director	Fenaka Corporation Limited
05	Ali Nafaah Mohamed	Assistant Engineer	State Electric Company Limited

VERSION	DEVELOPER	DATE	STANDARD CODE
V1	Maldives Institute of Technology	14/07/2024	CON-16L3-V1-25

## Standard Development Process

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The development of the “National Certificate III in Powerhouse Operations” Standard involved a comprehensive study of Construction occupations in Maldivian workplaces. Job descriptions and international occupational trends were analysed to draft an initial Occupational Standard. This draft will undergo further refinement through a Technical Panel (TP) from Maldivian workplaces, ensuring incorporation of competencies and edits. The TP will provide technical input, suggesting changes to the standard, until a final draft is agreed upon. The approved Final Draft will then be submitted to the Construction Employment Sector Council for endorsement and validation. A brief report detailing the compilation process will accompany the Standard for the Council's review, and any recommended changes will be addressed before final endorsement.

With the endorsement from the Construction Employment Sector Council, the finalised National Occupational Standard for Powerhouse Operations will be submitted to the Maldives Qualification Authority (MQA) for final approval. Upon receiving MQA approval, the standard will be officially published on the Maldives National Skills Development Authority (MNSDA) website. This publication will enable training providers in the Maldives to utilise the standard for delivering the Powerhouse Operations program, ensuring its widespread implementation across the country

## Description of “Powerhouse Operations”

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The standard serves as a foundational guideline designed to enhance essential skills across diverse industries. This program is dedicated to equipping individuals with fundamental competencies crucial for proficient Powerhouse Operations. Participants will gain practical insights into core techniques and practices.

The certification acts as an entry point for professionals venturing into the application of Powerhouse Operations principles, providing a robust foundation in the fundamental skills in this field.

## Proposed Qualification Titles

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Following are the recommended titles by the selected internal expert team of MIT for the National Certificate III in Powerhouse Operations.

1. Nil

## Job opportunities upon completion of “National Certificate III in Powerhouse Operations”

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Upon successful completion of the National certificate III in Powerhouse Operations, students can work in the following jobs.

1. *Assistant Safety Officer*

## KEY FOR CODING

### Coding Competency Standards and Related Materials

DESCRIPTION	REPRESENTED BY
Industry Sector as per ESC (Three letters)	Construction Sector (CON) Fisheries and Agriculture (FNA) Information, Communication and Technology (ICT) Transport Sector (TRN) Tourism Sector(TOU) Social Sector (SOC) Foundation (FOU)
Standard Number - Occupation with in an industry sector	Two digits 01-99
Common Competency	CM
Core Competency	CC
Unit Number - Occupation within a Standard	Three digits 01-99
MNQF level of qualification	L1, L2, L3, L4 etc.
Version Number	V1, V2 etc.
Separator	-
Year of Last Review of standard, qualification	Two digits responding to the year of last review, example 23 for the year 2023
Qualification Code	Refers to Standard code in cover page

1. Endorsement Application for Qualification 01		
2. NATIONAL CERTIFICATE III IN POWERHOUSE OPERATIONS		
3. Qualification code: CON-16L3-V1-25		Total Number of Credits: 68
<b>4. Purpose of the qualification</b> The National Certificate-3 in Powerhouse Operations aims to equip learners with the essential knowledge and practical skills required for efficient and safe operation of powerhouses in the Maldives. This qualification prepares individuals to manage and maintain power generation equipment, ensure compliance with safety and environmental standards, and perform routine inspections and maintenance tasks.		
<b>5. Regulations for the qualification</b>		National Certificate III in Powerhouse Operations will be awarded to those who are competent in units 1+2+3+4+5+6+7+8+9+10+11+12
6. Schedule of Units		
Unit No.	Unit Title	Code
Common Competencies		
01	Apply work ethics and optimise professionalism	CON-13-CM01-V2-24
02	Practice effective workplace communication	CON-01-CM03-V2-24
03	Perform computer operations	CON-01-CM05-V2-24
04	Respond to emergency situations	CON-05-CM01-V2-24
Core Competencies		
05	Apply occupational safety and health requirements for powerhouse operations	CON-16-CC01-V1-25
06	Apply science and engineering measurements for powerhouse operations	CON-16-CC02-V1-25
07	Understand electrical systems and components	CON-16-CC03-V1-25
08	Understand engine systems	CON-16-CC04-V1-25
09	Operate and monitor powerhouse systems	CON-16-CC05-V1-25
10	Understand compliance with regulatory requirement	CON-16-CC06-V1-25
11	Perform routine maintenance	CON-16-CC07-V1-25
12	Engage in powerhouse operations and maintenance	CON-16-CC08-V1-25
<b>7. Accreditation requirements</b>		The training provider should have a workshop or similar training facility to provide the trainees the hands-on experience related to this qualification and make arrangements for providing industrial experience. This qualification can also be pursued through an online learning mode.

<b>8. Recommended sequencing of units</b>	As appearing under the section 06
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## Unit Details

Unit No.	Unit Title	Code	Level	No. of credits	Credit hours	Contact hours
01	Apply work ethics and optimise professionalism	CON-13-CM01-V2-24	III	03	30	15
02	Practice effective workplace communication	CON-01-CM03-V2-24	III	03	30	15
03	Perform computer operations	CON-01-CM05-V2-24	III	03	30	15
04	Respond to emergency situations	CON-05-CM01-V2-24	III	05	50	25
05	Apply occupational safety and health requirements for powerhouse operations	CON-16-CC01-V1-25	III	05	50	25
06	Apply science and engineering measurements for powerhouse operations	CON-16-CC02-V1-25	III	08	80	40
07	Understand electrical systems and components	CON-16-CC03-V1-25	III	07	70	35
08	Understand engine systems	CON-16-CC04-V1-25	III	07	70	35
09	Operate and monitor powerhouse systems	CON-16-CC05-V1-25	III	08	80	40
10	Understand compliance with regulatory requirement	CON-16-CC06-V1-25	III	04	40	20
11	Perform routine maintenance	CON-16-CC07-V1-25	III	05	50	25
12	Engage in powerhouse operations and maintenance	CON-16-CC08-V1-25	III	10	100	50
Total				68	680	340

### Packaging of National Qualifications:

National Certificate III in Powerhouse Operations will be awarded to those who are competent in units 1+2+3+4+5+6+7+8+9+10+11+12

Qualification Code: CON-16L3-V1-25

## COMPETENCY BASED ASSESSMENT

The final assessment of the National Competency-Based Programmes conducted by the Maldives National Skills Development Authority (MNSDA) is a competency-based assessment.

The Competency-Based Assessment ensures that the students' performance meets the requirements specified in the National Competency Standards (NCS). This assessment approach is designed to verify that graduates are job-ready and meet established occupational competency requirements within their respective fields.

### Eligibility for Final Assessment

To be eligible for the final Competency-Based Assessment, students must fulfil the following conditions:

- achieve a **minimum of 80%** attendance
- deemed competent in each of the units of the programme in the pre-assessment

### Competency-Based Assessment Process

Upon submission of the Pre-assessment report by the training provider, MNSDA will check for all the necessary supporting documents and conduct Competency-Based Assessment through a National Assessor registered with MNSDA. It is important to note that any trainer involved in the training process is **not permitted** to conduct the assessment to maintain impartiality and integrity of the process.

The final Competency-Based Assessment conducted by MNSDA includes both:

- **Theory:** Evaluating students' knowledge and understanding of key theoretical aspects of the competency.
- **Practical:** Assessing hands-on skills and application of knowledge in real-world or simulated environments.

Once the assessment is completed, the National Assessor will send the Competency-Based Assessment Report to MNSDA.

### Competency Status Requirement

For certification to be granted, the student must be officially declared "**Competent**" in each of the units of the programme by the National Assessor.

### Conclusion

Competency-Based Assessment is a critical component in ensuring the quality and credibility of technical and vocational skills-based training. By adhering to the outlined procedure, MNSDA upholds the standards required to certify students who are fully prepared to meet industry demands.