



NAME: INTRODUCTION TO CONFINED SPACE CHALLENGES & SAFETY MEASURES

MC CODE:SSD/M0109

VERSION:1.0

NSQF LEVEL:3



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MC Description

The confined spaces like ducts, vessels, boilers, culverts, tunnels, boreholes, manholes, excavations, sumps, inspection pits, experimental hatches etc., present potential hazards to individuals working within them due to factors such as restricted ventilation, limited mobility, and the presence of hazardous substances. The MC deals with confined space safety challenges for workers and measures to be taken, training & emergency preparedness.

Parameters

Developed by	:	Safety Skill Development Foundation
MC Code	:	SSD/M0109
MC name	:	Introduction To Confined Space Challenges & Safety Measures
NSQF Level	:	3
Used by Sectors	:	Education, Training & Research; Construction, Infrastructure, Real estate, Iron & Steel, Mining, Logistics, Hydrocarbon and others
Occupation	:	Construction Engineering & Management
Country	:	India
Minimum Job Entry Age	:	NA



Minimum Educational Qualification & Experience	:	10th grade pass or equivalent with 3 years of relevant experience OR Previous qualification of NSQF level 2.5 + 1.5 year of relevant experience
Training Duration	:	Training – 15 hours and Assessment – 1 hour
NSQC Approval Date	:	08-05-2025
Next Review Date	:	08-05-2028
Version	:	1.0
Reference code on NQR	:	NM-03-ET-04312-2025-V1-SSDF
NQR Version	:	1.0



Scope

- Challenges posed by confined space for workers.
- Remedial measures for working in confined spaces.
- Safety measures to be taken while working in confined spaces.

Performance Criteria

The certified professional on this MC will be able to understand:

- PC1.** Enumerate & understand risks & challenges for working conditions in confined spaces due to Limited Access and Egress, Poor Ventilation and Hazardous Atmospheres, Communication Difficulties, Psychological and Physical Strain, Rescue and Medical Care Complexity.
- PC2.** Assess the risks while working in a confined space and measures to be taken.
- PC3.** Understand measurement & surveillance equipments, including remotely monitored, for measurement of presence of dangerous substances in the confined space
- PC4.** Isolate confined spaces to prevent the entry of hazardous or dangerous substances.
- PC5.** Create & understand working environment, precautions for work in areas, mechanical ventilation, use of protected-low voltage equipment.
- PC6.** Prepare entry controls, permit to work system and process safety for working in confined spaces.
- PC7.** Plan & conduct training & use of PPEs.

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- PC8.** Know national, international regulations and standards governing confined space entry and work.
- PC9.** Plan measures for emergency situations or in case of any incident.
- PC10.** Develop strategies to effectively navigate and exit panic situations.

Knowledge and Understanding (KU)

The certified professional on this MC will be able to know and understand followings:

- KU1.** Awareness of potential hazards in confined spaces such as toxic atmospheres, flammable gases, oxygen deficiency, physical obstacles, engulfment, and other risks specific to confined spaces.
- KU2.** Use of tools & equipments for measurement & monitoring of various obstacles & gases.
- KU3.** Understanding of national, international regulations and standards governing confined space entry and work.
- KU4.** Purpose and components of confined space entry permits, including the conditions for safe entry and work.
- KU5.** Awareness of emergency response and rescue procedures, including the use of rescue equipment, training for rescue teams.
- KU6.** Developing and following safe work procedures, including entry and exit procedures, isolation measures, and other protocols specific to confined spaces.
- KU7.** Use of PPEs.

Generic Skills (GS)

The certified professional on this MC should know followings for better performance:

- GS -1 Reading and writing in the language of communication.
- GS -2 Effective verbal communication in the local language.
- GS -3 Mathematics and utilizing Analysing processes & tools.



GS -4 Planning, organizing, and optimizing resources and utilizing planning and monitoring tools, as well as operating software

GS-5 Administration, decision making, and conflict resolution.

GS -6 Understanding of rules & regulations and adherence to instructions

GS -7 Understanding safety measures and adhering to safety protocols.

GS-8 Demonstrating professional behaviour when interacting with co-workers and employees.

GS -9 Proper utilization of personal protective equipment.

Assessment Criteria

Performance Criteria	Theory marks	Practical marks	Project Marks	Viva marks	Total marks
PC-1 Enumerate & understand risks & challenges for working conditions in confined spaces due to Limited Access and Egress, Poor Ventilation and Hazardous Atmospheres, Communication Difficulties, Psychological and Physical Strain, Rescue and Medical Care Complexity.	5	5			10
PC-2 Assess the risks while working in a confined space and measures to be taken.	5	5			10
PC-3 Understand measurement & surveillance equipments, including remotely monitored, for measurement of presence of dangerous substances in the confined space.	5	5			10
PC-4 Isolate confined spaces to prevent the entry of hazardous or dangerous substances.	5	5			10
PC-5 Create & understand working environment, precautions for work in areas, mechanical ventilation, use of protected-low voltage equipment.	5	5			10
PC-6 Prepare entry controls, permit to work system and process safety for working in confined spaces.	5	5			10
PC-7 Plan & conduct training & use of PPEs.	5	5			10



PC-8 Know national, international regulations and standards governing confined space entry and work.	5	5			10
PC-9 Plan measures for emergency situations or in case of any incident.	5	5			10
PC-10 Develop strategies to effectively navigate and exit panic situations.	5	5			10
MC Total Marks	50	50			100

Guidelines for Assessment

- The assessment criteria given is for Micro credential “Introduction to Confined Space Challenges & Safety Measures”.
- Assessments can be carried out offline as well as online and shall be carried out by SSDF only.
- Questions will be formed in such a way as to provide an outcome on maximum Performance Criteria.
- The assessment will be of one hour duration and will be based on multiple choice questions created/approved by the SSDF.
- The certificate on MC will be issued to successful candidates who score 50% or more than 50%.

Acronyms

SSDF	Safety Skill Development Foundation
NCVET	National Council for Vocational Education and Training
NSQF	National Skill Qualifications Framework
MC	Micro Credential
NOS	National Occupational Standards



QP	Qualification Pack
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Glossary

Key Words	Description
Safety Skill Development Foundation (SSDF)	An Awarding Body recognized by NCVET, Ministry of Skill Development & Entrepreneurship, Government of India.
NCVET (National Council for Vocational Education and Training)	Regulatory Authority of Government of India for Vocational Education and Training.
NSQF (National Skill Qualifications Framework)	National Skill Qualifications Framework is a framework under which skills are categorized from level 1 to 10.
Sector	Sector is conglomeration of different business operations having similar business and interests.
Sub-Sector	Sub-Sector is further breakdown of Sector based on the characteristics and business components.
Occupation	Occupation is a set of job roles requiring similar/related competencies in the industry.
Job role	Job role is a set of functions required to get an employment opportunity in the industry and perform a task as per industry norms.



Qualifications Pack (QP)	Qualifications Pack comprises the set of Occupational Standard, required to perform a job role and is assigned a unique qualification pack code.
National Occupational Standards (NOS)	NOS are Occupational Standards in the Indian context and approved by NCVET.
Micro Credential (MC)	A coherent set of skills, knowledge, and learning outcomes, needed by industry, employers, Government, or the community.
Performance Criteria (PC)	Performance Criteria are statements specifying the standard of performance required when carrying out a task.
Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, professional, and organizational specific knowledge that an individual, needs to perform to the required standard.
Generic Skills (GK)	Generic Skills are a group of skills typically needed in general to perform the task.
MC/NOS/QP Codes	MC/NOS/QP codes are unique identifier codes for MC/NOS/QP which starts from M/N/Q respectively