



## Model Curriculum

Qualification Name: Manager (OSHE)

Qualification Code: SSD/Q0106

Qualification Version: 1.0

NSQF Level: 6.0

Model Curriculum Version: 1.0

**Safety Skill Development Foundation**

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## Training Parameters

|   |  |
|---|--|
| <b>Sectors</b>  | Hydrocarbon, Iron & steel, Mining, Power, Automotive, Construction, Chemical / Petrochemical, and others.  |
| <b>Sub-Sector</b>                                       | -  |
| <b>Occupation</b>                                       | Occupational Safety Health & Environment (OSHE) Engineering & Management   |
| <b>Country</b>  | India  |
| <b>NSQF Level</b>                                       | 6  |
| <b>Aligned to NCO/ISCO/ISIC Code</b>                    | NCO-2015/3257.0600 : Health, Safety & Environment Officer  |
| <b>Minimum Educational Qualification and Experience</b> | Completed 4-year UG degree program in relevant field with 3.5-year experience in relevant field<br><br>OR<br><br>Completed 3-year UG degree program in relevant field with 8 years' experience in relevant field<br><br>OR<br><br>Previous qualification of NSQF level 5.5 in relevant field and 1.5 years of experience<br><br>OR<br><br>Previous qualification of NSQF level 5 in relevant field and 3 years of experience |
| <b>Pre-Requisite License or Training</b>                | Nil  |
| <b>Minimum Job Entry Age</b>                            | 18 years   |
| <b>Last Reviewed On</b>                                 | 31-01-2024   |



|  |            |
|--|------------|
| <b>Next Review Date</b>                  | 31-01-2027 |
| <b>Version</b>                           | 1.0        |
| <b>NSQC Approval Date</b>                | 31-01-2024 |
| <b>Model Curriculum Creation Date</b>    | 31-01-2024 |
| <b>Model Curriculum Valid Up to Date</b> | 31-01-2027 |
| <b>Model Curriculum Version</b>          | 1.0        |
| <b>Minimum Duration of the Course</b>    | 810 Hours  |
| <b>Maximum Duration of the Course</b>    | 810 Hours  |

## Program Overview

This section summarizes the end objectives of the program along with its duration.

### Training Outcomes

After completing the program, the participant will be able to: -

- Perform and fulfill Health & Safety requirements at the workplace.
- Prepare Health & Safety record documents like permit to work, HIRA, HAZOP etc...
- Define scope of the safety management system.
- Perform risk assessment of a workplace.
- Learn accident prevention methods and implementations.
- Learn environmental issues and preventive measures.
- Collect and analyze root cause of incidents.
- Meet regulatory requirements in Health & Safety as per OSH Code 2020, BOCW Act 1996 & Factories Act 1948.
- Meet the regulations and enforcement decided by the environmental act, 1986 and the SPCB & CPCB.
- Understand international requirement of OSHE, USA, UK, Gulf countries & ILO.
- Carryout Inspection for OSHE processes.
- Know & understand the good practices in organization and develop a positive safety culture.
- Understand proper communication channels in an organization.
- Plan, organize and implement safety committee recommendations at the workplace.
- Advise management on new technological advancement in health & Safety.
- Role of management in an organization, role of safety Inspector, safety officer, safety engineer, and safety manager.
- Fundamentals of process safety, OSHA standards QRA, LOPA, SIL, FERA, EERA.



- Role of occupier, controller of premise, role & need of contractors in the organization & work permit to contractors, role of safety committee.
- Selection prerequisites of a contractor, management of contractors, review meetings, safety committee meetings, method statements, accident reporting, training programs, statutory inspections, permit to work, gaps in contractor safety implementation of contractor safety.

## Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

| <b>NOS and Module Details</b>  | <b>Theory Duration</b> | <b>Practical Duration</b> | <b>On-the-Job Training Duration (Mandatory)</b> | <b>On-the-Job Training Duration (Recommended)</b> | <b>Total Duration</b> |
|--|------------------------|---------------------------|---|---|-----------------------|
| <b>SSD/N0132, v1.0 : Occupational Safety, Health, and Environment (OSHE) Management.</b>   | <b>72:00 Hours</b>     | <b>28:00 Hours</b>        | <b>20:00 Hours</b>                              | <b>00:00 Hours</b>                                | <b>120:00 Hours</b>   |
| Module 1: Introduction to Training Program, Overview, assessments, role Manager (OSHE) employment opportunities.   | 04:00 Hours            | 00:00 Hours               | 00:00 Hours                                     | 00:00 Hours                                       | 04:00 Hours           |
| Module 2: Understand occupational health & safety, identifying the loopholes and gaps in the system, fire hazard at workplace, firefighting methods, and systematic approach in identifying and correcting probable of hazards including fire accidents. | 68:00 Hours            | 28:00 Hours               | 20:00 Hours                                     | 00:00 Hours                                       | 116:00 Hours          |
| <b>SSD/N0133, v1.0 : Hazard Identification &amp; Risk Analysis.</b>  | <b>72:00 Hours</b>     | <b>28:00 Hours</b>        | <b>20:00 Hours</b>                              | <b>00:00 Hours</b>                                | <b>120:00 Hours</b>   |



|   |                        |                        |                    |                    |                        |
|---|------------------------|------------------------|--------------------|--------------------|------------------------|
| Module 3: Identify hazards at workplace, severity of hazards, risk rating analysis, accidents, and mishaps at a workplace, implementing accident prevention theories.             | 72:00<br>Hours         | 28:00<br>Hours         | 20:00 Hours        | 00:00 Hours        | 120:00<br>Hours        |
| <b>SSD/N0121, v1.0 : Fire Safety and Emergency Management plan.</b>   | <b>36:00<br/>Hours</b> | <b>14:00<br/>Hours</b> | <b>20:00 Hours</b> | <b>00:00 Hours</b> | <b>60:00<br/>Hours</b> |
| Module 4: Understand how to tackle fire emergencies, the emergency scenarios, industrial case studies, emergency plan development for a safe working environment.                 | 36:00<br>Hours         | 14:00<br>Hours         | 20:00 Hours        | 00:00 Hours        | 60:00<br>Hours         |
| <b>SSD/N0122, v1.0 : Hazards Mitigation Methodologies.</b>  | <b>36:00<br/>Hours</b> | <b>14:00<br/>Hours</b> | <b>10:00 Hours</b> | <b>00:00 Hours</b> | <b>60:00<br/>Hours</b> |
| Module 5: Knowledge & skills to identify and control hazards at workplace, analyze severity of hazards, give risk rating, and implement improved hazard mitigation methodologies. | 36:00<br>Hours         | 14:00<br>Hours         | 10:00 Hours        | 00:00 Hours        | 60:00<br>Hours         |
| <b>SSD/N0123, v1.0 : Hazard and risk perception.</b>  | <b>36:00<br/>Hours</b> | <b>14:00<br/>Hours</b> | <b>10:00 Hours</b> | <b>00:00 Hours</b> | <b>60:00<br/>Hours</b> |
| Module 6: Analysis of different perceived risks with wide range of affective (emotions, feelings, moods, etc.), cognitive, contextual, and individual personality                 | 36:00<br>Hours         | 14:00<br>Hours         | 10:00 Hours        | 00:00 Hours        | 60:00<br>Hours         |



|  |                    |                    |                    |                    |                    |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|
| traits, previous experience, age, other factors influencing work related injuries.   |                    |                    |                    |                    |                    |
| <b>SSD/N0134, v1.0 : Statutes &amp; Legislative requirements in Health &amp; Safety.</b>   | <b>54:00 Hours</b> | <b>36:00 Hours</b> | <b>00:00 Hours</b> | <b>00:00 Hours</b> | <b>90:00 Hours</b> |
| Module 7: Learn regulations & regulatory compliance requirements as per the laws governed by the Government of India. Identify the shortcomings as per the recommendation of the regulatory body for a particular task or activity | 54:00 Hours        | 36:00 Hours        | 00:00 Hours        | 00:00 Hours        | 90:00 Hours        |
| <b>SSD/N0124, v1.0 : Statutes and Legislative requirements in OSHA (International).</b>  | <b>36:00 Hours</b> | <b>24:00 Hours</b> | <b>00:00 Hours</b> | <b>00:00 Hours</b> | <b>60:00 Hours</b> |
| Module 8: Introduction to regulations and regulatory compliance governed by countries across the globe and identifying the shortcomings.   | 36:00 Hours        | 24:00 Hours        | 00:00 Hours        | 00:00 Hours        | 60:00 Hours        |
| <b>SSD/N0125, v1.0 : Safety Auditing and Inspection</b>  | <b>36:00 Hours</b> | <b>14:00 Hours</b> | <b>20:00 Hours</b> | <b>00:00 Hours</b> | <b>60:00 Hours</b> |
| Module 9: Knowledge & understanding to conduct audit and inspection of workplace, assess the workplace on Health & Safety parameters, review and upgrade existing safety controls at the workplace.                                | 36:00 Hours        | 14:00 Hours        | 20:00 Hours        | 00:00 Hours        | 60:00 Hours        |



|   |                         |                         |                     |                        |                         |
|---|-------------------------|-------------------------|---------------------|------------------------|-------------------------|
| <b>SSD/N0112, v1.0 : Pollution &amp; Environment Management, Global warming, and sustainability.</b>  | <b>36:00<br/>Hours</b>  | <b>14:00<br/>Hours</b>  | <b>10:00 Hours</b>  | <b>00:00 Hours</b>     | <b>60:00<br/>Hours</b>  |
| Module 10: Identify impact of pollution, perform environment impact analysis, Learn waste management techniques.  | 36:00<br>Hours          | 14:00<br>Hours          | 10:00 Hours         | 00:00 Hours            | 60:00<br>Hours          |
| <b>SSD/N0104, v1.0 : Plan, Organize and Emergency protocols.</b>  | <b>36:00<br/>Hours</b>  | <b>14:00<br/>Hours</b>  | <b>10:00 Hours</b>  | <b>00:00 Hours</b>     | <b>60:00<br/>Hours</b>  |
| Module 11: Planning and organizing to provide a safe working environment for workers and set emergency protocols and measure in case of any unforeseen and incidents or accidents to minimize the damages & losses. | 36:00<br>Hours          | 14:00<br>Hours          | 10:00 Hours         | 00:00 Hours            | 60:00<br>Hours          |
| <b>DGT/VSQ/0102 :<br/>Employability Skills</b>  | <b>36:00<br/>Hours</b>  | <b>24:00<br/>Hours</b>  | <b>00:00 Hours</b>  | <b>00:00<br/>Hours</b> | <b>60:00<br/>Hours</b>  |
| Module 12: Understand scope in employment, financial dealing, digital literacy and communication with employer or customer.   | 30:00<br>Hours          | 30:00<br>Hours          | 00:00 Hours         | 00:00 Hours            | 60:00<br>Hours          |
| <b>Total Duration</b>   | <b>486:00<br/>Hours</b> | <b>204:00<br/>Hours</b> | <b>120:00 Hours</b> | <b>00:00 Hours</b>     | <b>810:00<br/>Hours</b> |



## Module Details

Module 1: Introduction to Training Program, Overview, assessments, role Manager (OSHE) employment opportunities.

Mapped to SSD/N0132, v 1.0

Terminal Outcomes:

- Discuss role of Manager OSHE, sectors & industries.
- Employment opportunities, career development & International opportunities.
- Course approach, duration, training & assessment processes.

|  |  |
|--|--|
| <b>Duration:</b> 04:00   | <b>Duration:</b> 00:00                 |
| <b>Theory–Key Learning Outcomes</b>  | <b>Practical–Key Learning Outcomes</b> |
| <ul style="list-style-type: none"> <li>● Role &amp; responsibilities of Manager (OSHE).</li> <li>● Iceberg theory of safety.</li> <li>● Career progression in the occupation.</li> <li>● Industries for Employment &amp; international opportunities for employment.</li> <li>● Training approach &amp; methodology.</li> <li>● Assessment process &amp; Certification.</li> <li>● The assistance provided by AB/TP/LMIS in employment.</li> </ul> |  |
| <b>Classroom Aids:</b>   |  |
| Black/White Board, Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator’s Guide, Participant’s Handbook.  |  |
| <b>Tools, Equipment and Other Requirements</b>   |  |
| Nil  |  |



Module 2: Understand occupational health & safety, identifying the loopholes and gaps in the system, fire hazard at workplace, firefighting methods, and systematic approach in identifying and correcting probable of hazards including fire accidents.

Mapped to SSD/N0132, v 1.0

Terminal Outcomes:

- Understanding health & safety requirements, financial losses of an organization because of an accident.
- Safety Policy and Health & Safety objectives formulation.
- Identifying fire hazards at the workplace.
- Understanding different classes of fire, evacuations, fire drills, use of PPEs.
- Onboarding and managing contractors to comply with statutory requirements in occupational OSHE.
- Understand fundamental of process safety, OSHA standards QRA, LOPA, SIL, FERA, EERA.

| Duration: 68 Hours  | Duration: 28 Hours   |
|---|--|
| Theory–Key Learning Outcomes  | Practical–Key Learning Outcomes  |
| <ul style="list-style-type: none"> <li>● Concept of Health, Safety and Environment management at workplace, its importance and the moral, financial and legal reason for health and safety at workplace.</li> <li>● Accident Cost- Iceberg” theory of direct and indirect cost incurred from an incident.</li> <li>● Employer responsibilities in providing safe working conditions.</li> <li>● Employee rights &amp; responsibilities at a workplace, safety culture.</li> <li>● Role of International Labor Organization in health &amp; safety.</li> <li>● Safety Policy, its aim, objects, and “SMART” concept of goal setting.</li> <li>● Requirement of Plan-Do-Check-Act (PDCA) Cycle in safety management system; understanding and analysis.</li> <li>● Stages of “Plan” &amp; “Do” and “Check” and “Act” stages of PDCA cycle.</li> <li>● Need of training, induction training &amp; competency at workplace, “Toolbox talk”.</li> <li>● Gas testing using – LEL sensor, O2 sensor, H2S sensor, Co Sensor.</li> </ul> | <ul style="list-style-type: none"> <li>● Identify hazards &amp; risks and safety requirements.</li> <li>● Prepare Safety Policy &amp; policy for contractors.</li> <li>● Identify fire hazards at the workplace, evacuation drill, fire drills, use of PPEs.</li> <li>● Operate fire extinguisher and fire hydrant.</li> <li>● Prepare contractor management policy for OHSE issues</li> <li>● Understand the fundamentals of process safety, OSHA standards QRA, LOPA, SIL, FERA, EERA.</li> <li>● Role of management in an organization, role of safety Inspector, safety officer, safety engineer, and safety manager.</li> <li>● Role of occupier, controller of premise, role &amp; need of contractors in the organization &amp; work permit to contractors, role of safety committee.</li> <li>● Selection prerequisites of a contractor, management of contractors, review meetings, safety committee meetings,</li> </ul> |



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| <ul style="list-style-type: none"> <li>● Understand basic definitions- Flammable liquids, Combustible matter/liquids, Combustible GASES, combustion, oxygen percentage in air, exothermic and endothermic reactions, radiation.</li> <li>● Fire triangle and classification fire, common reason for fire accidents.</li> <li>● Types of fire-fighting equipment, its principle of operation, components in different fire extinguishers, PASS technique &amp; operation of fire hydrants.</li> <li>● Use of smoke detectors, fire alarm, emergency lighting, flashing light, sprinklers, and pressure requirements in fire hydrants, PPE's, SCBA (Self-contained breathing apparatus) and use of SCBA.</li> <li>● Requirements of emergency evacuation – Escape route as per IS1644, emergency door, assembly point, evacuation, evacuation of differently abled, evacuation procedure, fire drills on emergency evacuation.</li> <li>● Role of management in an organization, role of safety Inspector, safety officer, safety engineer, and safety manager.</li> <li>● Fundamentals of process safety, OSHA standards QRA, LOPA, SIL, FERA, EERA.</li> <li>● Role of occupier, controller of premise, role &amp; need of contractors in the organization &amp; work permit to contractors, role of safety committee.</li> <li>● Selection prerequisites of a contractor, management of contractors, review meetings, safety committee meetings, method statements, accident reporting, training programs, statutory inspections, permit to work, gaps in contractor safety implementation of contractor safety.</li> </ul> | <p>method statements, accident reporting, training programs, statutory inspections, permit to work, gaps in contractor safety implementation of contractor safety.</p> |
| <p><b>Classroom Aids:</b></p>  |  |
| <p>Black/White Board, Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator's Guide, Participant's Handbook.</p>   |  |
| <p><b>Tools, Equipment and Other Requirements</b></p>  |  |



Safety goggles, Full face shield, Leather gloves , Puncture resistant gloves, Chemical resistant gloves, Electrically insulated latex gloves, Safety helmets/hard hats, Ear plugs, Ear muffs, Safety shoes, Safety gumboots, High visibility jackets, N95 masks, Double filter half face mask, Double filter full face mask, SCBA – Self-contained breathing apparatus, Safety harness, Lanyard, Fall arrestor, CO2 Fire extinguisher, Dry Chemical Powder Fire extinguisher, Fire hydrant system, Multiple gas detector, TDS Meter

### Module 3: Identify hazards at workplace, severity of hazards, risk rating analysis, accidents, and mishaps at a workplace, implementing accident prevention theories.

Mapped to SSD/N0133, v 1.0

#### Terminal Outcomes:

- Identification of hazards, categories of the hazards and Hazard and Operability Analysis (HAZOP).
- Understanding & carrying out Fault Tree analysis & Event Tree Analysis, failure modes and effect analysis.
- Hazard Identification and Risk Assessment (HIRA) and Job Safety Analysis.
- “Hierarchy of control” and methodologies for improvement.
- Understand hidden risk in improved methodologies.

| Duration: 72 Hours  | Duration: 28 Hours  |
|---|---|
| <b>Theory–Key Learning Outcomes</b>   | <b>Practical–Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>● Hazards, unsafe conditions &amp; acts.</li> <li>● Incidents &amp; accidents; fatal, non-fatal, near miss incidents &amp; accidents; lost time injury &amp; first aid injury.</li> <li>● Hazard categories, controls, hierarchy of controls.</li> <li>● Hazards from electricity, fire, workplace hazard - work at height, confined space, working in an excavation, lone working, slips &amp; trips, lifting and Rigging hazards.</li> <li>● Hazardous substances, Musculoskeletal disorders, manual handling, and load handling equipment, noise, vibration, radiation, mental ill- health, violence at work, abuse at workplace.</li> <li>● Basic definitions- incident, accident, Injury, lost time injury, unsafe condition, unsafe Acts, dangerous occurrences, hazards, error, near miss.</li> <li>● Theories of accident causation- Heinrich’s Domino theory,” “Heinrich 300-29-1 model,</li> </ul> | <ul style="list-style-type: none"> <li>● Perform Hazard and Operability Analysis (HAZOP).</li> <li>● Perform Tree analysis &amp; Event Tree Analysis</li> <li>● Carry out Job Safety Analysis.</li> <li>● Carry out Hazard Identification and Risk Assessment (HIRA)</li> </ul> |



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|--|--|
| <p>“Ferrell’s Human Factor Model”, “Petersen’s Accident/Incident Model” and Reason’s Swiss Cheese Model”.</p> <ul style="list-style-type: none"> <li>• “Frequency rate &amp; Incident rate.” Lost time case rate, DART rate, Severity rate.</li> <li>• “Fault tree analysis” and “Event tree analysis”, “HAZOP- Hazard, operability analysis” and “Job safety analysis.”</li> <li>• “Hazard Identification and risk assessment”.</li> <li>• Hierarchy of controls, Importance of hierarchy of control &amp; steps in hierarchy of control.</li> <li>• Maslow’s theory of Hierarchical Needs, Herzberg’s two-factor theory and McClelland’s theory of needs, Vroom’s Theory of Expectancy, McGregor’s theory X and theory Y and Alderfer’s ERG theory.</li> </ul> |  |
| <p><b>Classroom Aids:</b></p>  |  |
| <p>Black/White Board, Computer, Projection Equipment, MS office &amp; Design &amp; drafting software, Facilitator’s Guide, Participant’s Handbook.</p>   |  |
| <p><b>Tools, Equipment and Other Requirements</b></p>  |  |
| <p>Safety goggles, Full face shield, Leather gloves , Puncture resistant gloves, Chemical resistant gloves, Electrically insulated latex gloves, Safety helmets/hard hats, Ear plugs, Ear muffs, Safety shoes, Safety gumboots, High visibility jackets, N95 masks, Double filter half face mask, Double filter full face mask, SCBA – Self-contained breathing apparatus, Safety harness, Lanyard, Fall arrestor, CO2 Fire extinguisher, Dry Chemical Powder Fire extinguisher, Fire hydrant system, Multiple gas detector, TDS Meter.</p>  |  |

Module 4: Understand to tackle fire emergencies, the emergency scenarios, industrial case studies, emergency plan development for safe working environment.

Mapped to SSD/N0121, v 1.0

Terminal Outcomes:

- Identification and mitigation of fire at the workplace.
- Development of plans to tackle different classes of fire.
- Development of plans for evacuations and fire drills.
- Preparation fire-fighting plans for different industries.



| Duration: 36 Hours   | Duration: 04 Hours  |
|--|---|
| Theory–Key Learning Outcomes   | Practical–Key Learning Outcomes   |
| <ul style="list-style-type: none"> <li>● Basic definitions related to fire safety.</li> <li>● Fire triangle and classification fire. Learn the science of instigation of fire.</li> <li>● The stages of fire instigation.</li> <li>● The science of fire spread and mitigation techniques.</li> <li>● Different types of extinguishing media used in fire-fighting equipment.</li> <li>● Types of fire-fighting equipment and their principle of operation.</li> <li>● Firefighting equipment planning and placement as per NBC (National Building Code).</li> <li>● New technological interventions in fire safety.</li> <li>● Use of PPEs in fire safety –SCBA (Self-contained breathing apparatus)</li> <li>● Emergency evacuation route as per IS 1644.</li> <li>● Planning of emergency evacuation.</li> <li>● Fire door, emergency directional signages, assembly point, evacuation, evacuation of differently abled, evacuation procedure.</li> <li>● Role of “Fire Marshals”.</li> <li>● Fire drills on emergency evacuation and fire fighting equipment.</li> <li>● Fire Safety Risk assessment and control (HIRAC).</li> </ul> | <ul style="list-style-type: none"> <li>● Identify fire hazards at the workplace.</li> <li>● Develop systematic approach in identifying and correcting probable fire accidents and suggest fire-fighting equipment.</li> <li>● Operate fire extinguisher and fire hydrant.</li> <li>● Prepare an Emergency evacuation plan.</li> </ul> |
| <b>Classroom Aids:</b>   |   |
| Black/White Board, Computer, Projection Equipment, MS office & Design & drafting software, Facilitator’s Guide, Participant’s Handbook.  |   |
| <b>Tools, Equipment and Other Requirements</b>   |   |



Safety goggles, Full face shield, Leather gloves , Puncture resistant gloves, Chemical resistant gloves, Electrically insulated latex gloves, Safety helmets/hard hats, Ear plugs, Ear muffs, Safety shoes, Safety gumboots, High visibility jackets, N95 masks, Double filter half face mask, Double filter full face mask, SCBA – Self-contained breathing apparatus, Safety harness, Lanyard, Fall arrestor, CO2 Fire extinguisher, Dry Chemical Powder Fire extinguisher, Fire hydrant system, Multiple gas detector, TDS Meter.

Module 5: Knowledge & skills to identify and control hazards at workplace, analyze severity of hazards, give risk rating, and implement improved hazard mitigation methodologies.

Mapped to SSD/N0122, v 1.0

Terminal Outcomes:

- Identify hazards & categories the hazards.
- Implement “Hierarchy of control” in improvement methodologies.
- Understand hidden risk in improved methodologies.

| Duration: 36 Hours  | Duration: 14 Hours   |
|---|--|
| Theory–Key Learning Outcomes  | Practical–Key Learning Outcomes  |
| <ul style="list-style-type: none"> <li>● Terminologies/definitions in risk assessment. Identify hazard categories.</li> <li>● Hierarchy of controls in safety &amp; Importance of each hierarchy of control.</li> <li>● Different hazard &amp; control in electricity, use of tools &amp; equipment, machinery, Work at height, confined space, working in an excavation.</li> <li>● Different hazard &amp; control for lone working and slips &amp; trips.</li> <li>● Hazardous substances, Musculoskeletal disorders, manual handling, and load handling equipment.</li> <li>● Hazard &amp; control for Noise, vibration, radiation, mental ill - health, violence at work, substance abuse at workplace, Lifting and Rigging hazards and control.</li> <li>● Risk matrix in risk assessment.</li> <li>● Risk assessment in warehouse, construction site, manufacturing industry, process industry and oil and gas industry.</li> </ul> | <ul style="list-style-type: none"> <li>● Identify hazard</li> <li>● Formulate hierarchy of control in risk mitigation.</li> <li>● Identify residual or hidden risks &amp; control measures.</li> <li>● Make presentation on different hazards &amp; controls.</li> </ul> |
| <p><b>Classroom Aids:</b></p>   |  |



Black/White Board, Computer, Projection Equipment, MS office & Design & drafting software, Facilitator’s Guide, Participant’s Handbook.

**Tools, Equipment and Other Requirements**

Safety goggles, Full face shield, Leather gloves , Puncture resistant gloves, Chemical resistant gloves, Electrically insulated latex gloves, Safety helmets/hard hats, Ear plugs, Ear muffs, Safety shoes, Safety gumboots, High visibility jackets, N95 masks, Double filter half face mask, Double filter full face mask, SCBA – Self-contained breathing apparatus, Safety harness, Lanyard, Fall arrestor, CO2 Fire extinguisher, Dry Chemical Powder Fire extinguisher, Fire hydrant system, Multiple gas detector, TDS Meter.

Module 6: Analysis of different perceived risks with wide range of affective (emotions, feelings, moods, etc.), cognitive, contextual, and individual personality traits, previous experience, age, other factors influencing work related injuries

Mapped to SSD/N0123, v 1.0

Terminal Outcomes:

- Identify hazards & categories the hazards
- Implement “Hierarchy of control” in improvement methodologies.
- Understand hidden risk in improved methodologies.

| Duration: 36 Hours   | Duration: 14 Hours   |
|--|--|
| Theory–Key Learning Outcomes   | Practical–Key Learning Outcomes  |
| <ul style="list-style-type: none"> <li>● Subjective evaluation of risk with the help of individuality context.</li> <li>● Risk tolerance, Risk magnitude appraisal, Risk acceptance and Risk behavior.</li> <li>● Modeled risk.</li> <li>● Difference between perceived risk and modeled risk.</li> <li>● Risk attitudes.</li> <li>● Different risk communication process &amp; framework.</li> <li>● Understanding Risk Management.</li> <li>● Correlation in risk perception influencing hazard mitigation methodologies.</li> </ul> | <ul style="list-style-type: none"> <li>● Identify &amp; monitor hazards.</li> <li>● Analyze risk tolerance capability of individuals.</li> <li>● Carry risk assessment including risk perception as a dynamic hazard in risk assessment.</li> <li>● Make a presentation on risk tolerance, risk magnitude appraisal, risk acceptance and risk behavior.</li> </ul> |



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| <ul style="list-style-type: none"> <li>● Underlying hazards at the workplace due to poor risk perception.</li> <li>● Behavior based safety and its limitations.</li> </ul>   |  |
| <b>Classroom Aids:</b>   |  |
| Black/White Board, Computer, Projection Equipment, MS office & Design & drafting software, Facilitator's Guide, Participant's Handbook.  |  |
| <b>Tools, Equipment and Other Requirements</b>   |  |
| Safety goggles, Full face shield, Leather gloves , Puncture resistant gloves, Chemical resistant gloves, Electrically insulated latex gloves, Safety helmets/hard hats, Ear plugs, Ear muffs, Safety shoes, Safety gumboots, High visibility jackets, N95 masks, Double filter half face mask, Double filter full face mask, SCBA – Self-contained breathing apparatus, Safety harness, Lanyard, Fall arrestor, CO2 Fire extinguisher, Dry Chemical Powder Fire extinguisher, Fire hydrant system, Multiple gas detector, TDS Meter. |  |

Module 7: Learn regulations & regulatory compliance requirements as per the laws governed by the Government of India. Identify the shortcomings as per the recommendation of the regulatory body for a particular task or activity.

*Mapped to SSD/N0134, v 1.0*

Terminal Outcomes:

- Understanding various rules, regulations and statutes required related to occupational safety, health & environment including BOCW Act 19196, Factories Act 1948, OSH Code 2020, Environment protection Act, 1996 and others applicable in various fields.

| Duration: 54 Hours   | Duration: 36 Hours  |
|--|---|
| <b>Theory–Key Learning Outcomes</b>  | <b>Practical–Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>● Apply the regulatory obligations pertaining to safety, health, and environmental compliance in accordance with the BOCW Act of 1996.</li> <li>● Apply the regulatory obligations pertaining to safety, health &amp; environment compliance as per Factories Act, 1948.</li> <li>● Apply the regulatory obligations pertaining to safety, health &amp; environment compliance as per OSH Code 2020 &amp; Occupational Safety &amp; Health Administration (OSHA) compliance requirements.</li> <li>● Apply the regulatory obligations pertaining to Environment Protection Act, 1986 &amp; ILO</li> </ul> | <ul style="list-style-type: none"> <li>● Apply BOCW act safeguarding the rights and interests of workers in terms of accidental insurance, immediate healthcare, and financial assistance</li> <li>● Apply factories act that protect the health and safety of workers, ensures adherence to global best practices.</li> <li>● Apply OSH code 2020.</li> <li>● Apply ILO guidelines that govern the principle that workers against sickness,</li> </ul> |



|  |   |
|--|---|
| <p>Guidelines related to EHS.</p> <ul style="list-style-type: none"> <li>● Apply the regulatory obligations pertaining to Oil Industry Safety Directorate (OSID) Guidelines.</li> <li>● Apply the regulatory obligations pertaining to Mines Vocational Training Rules – DGMS.</li> <li>● Apply the regulatory obligations pertaining to Electricity Act 2010 &amp; 2003.</li> <li>● Apply the regulatory obligations pertaining to National Building Code (NBC) – 2016.</li> <li>● Apply the regulatory obligations pertaining to National Fire Protection Association regulations.</li> <li>● Apply the regulatory obligations pertaining to Petroleum &amp; Explosive Safety Organization (PESO)-Explosive Act 1884.</li> <li>● Apply the regulatory obligations pertaining to Gas Cylinders Rule 2016.</li> <li>● Apply the regulatory obligations pertaining to The Boilers Act 1923.</li> <li>● Apply regulatory obligations pertaining to Workmen Compensation Act 1923 &amp; Employee State Insurance Act 1948 and related compliance.</li> <li>● Apply regulatory obligations pertaining to Motor vehicle Act 1988.</li> <li>● Apply the regulatory obligations pertaining to First Aid at workplaces and training on first aid.</li> </ul> | <p>disease and injury arising from their employment.</p> <ul style="list-style-type: none"> <li>● Apply Oil Industry Safety Directorate (OSID) Guidelines, External Safety Audits, Offshore Safety Regulatory Activities, Training Program / Workshop, and Accident Reporting &amp; Investigation in oil fields.</li> <li>● Apply regulatory obligations pertaining to Mines Vocational Training Rules – DGMS.</li> <li>● Apply Electricity Act 2010 &amp; 2003 consolidate the laws relating to generation, transmission, distribution, trading, and use of electricity</li> <li>● Apply NBC 2016 contains administrative regulations, development control rules and general building requirements; fire safety and other requirements.</li> <li>● Apply fire, electrical, and life safety guidelines and requirements.</li> <li>● Apply regulations on the manufacture, possession, use, sale, transport, and importation of Explosives.</li> <li>● Apply insurance policy designed to financially protect employees in the wake of any accidents, social security scheme aimed at providing the requisite medical and financial assistance to employees across the country.</li> <li>● Apply necessary first aid assistance to an injured person until professional medical care can be provided.</li> </ul> |
| <p><b>Classroom Aids:</b></p>  |   |
| <p>Black/White Board, Computer, Projection Equipment, MS office &amp; Design &amp; drafting software, Facilitator’s Guide, Participant’s Handbook.</p>   |   |
| <p><b>Tools, Equipment and Other Requirements</b></p>  |   |
| <p>Regulations, Books, Handouts, Laptop/computer, internet.</p>  |   |



## Module 8: Introduction to regulations and regulatory compliance governed by countries across the globe and identifying the shortcomings.

Mapped to SSD/N0124, v 1.0

### Terminal Outcomes:

- Understanding compliance requirements of Occupational Safety and Health Act (USA).
- Understanding compliance requirements of Health and Safety work Act 1974(UK).
- Understanding compliance requirements of The European Union.
- Understanding compliance requirements of The Gulf Countries Acts.
- Understanding compliance requirements of ILO convention C155.

| <b>Duration: 36 Hours</b>  | <b>Duration: 24 Hours</b>   |
|--|---|
| <b>Theory–Key Learning Outcomes</b>  | <b>Practical–Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>● General duty clause, hazard communication standard, record keeping standard, PPE standards as per occupational safety and health Act USA.</li> <li>● Understand the safe and healthy working environment, including safe equipment and machinery, safe systems of work, and adequate welfare facilities.</li> <li>● Record keeping and use of PPE standards as per Occupational Safety and Health Act (USA).</li> <li>● Health and Safety work Act 1974(UK).</li> <li>● Safe and healthy working environment, including safe equipment and machinery, safe systems of work, and adequate welfare facilities as per Health and Safety work Act 1974(UK).</li> <li>● The directive sets out the general principles of workplace health and safety that apply to all workplaces in the EU.</li> <li>● European Union: Framework Directive 89/391/EEC.</li> <li>● General principles of workplace health and safety that apply to all workplaces in the EU.</li> <li>● Gulf Countries Acts: Federal Law No. 8 of 1980 on Regulation of Labor Relations as in UAE.</li> <li>● Royal Decree No. M/51 of 2003 as in Saudi Arabia.</li> </ul> | <ul style="list-style-type: none"> <li>● Understand &amp; present compliance requirements of Occupational Safety and Health Act (USA).</li> <li>● Understand &amp; present requirements of Health and Safety work Act 1974(UK).</li> <li>● Understand &amp; present compliance requirements of The European Union.</li> <li>● Understand &amp; present compliance requirements of The Gulf Countries Acts.</li> <li>● Understand &amp; present compliance requirements of ILO convention C155.</li> </ul> |



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| <ul style="list-style-type: none"> <li>• Qatar Labor Law No. 14 of 2004 as in Qatar.</li> <li>• Labor Law No. 6 of 2010 as in Kuwait, The Labor Law No. 36 of 2012.</li> <li>• ILO convention C155.</li> </ul> |  |
| <b>Classroom Aids:</b>   |  |
| Black/White Board, Computer, Projection Equipment, MS office & Design & drafting software, Facilitator’s Guide, Participant’s Handbook.  |  |
| <b>Tools, Equipment and Other Requirements</b>   |  |
| Regulations, Books, Handouts, Laptop/computer, internet.   |  |

Module 9: Knowledge & understanding to conduct audit and inspection of workplace, assess the workplace on Health & Safety parameters, review and upgrade existing safety controls at the workplace.

Mapped to SSD/N0125, v1.0

Terminal Outcomes:

- Able to perform Audit & Inspections Internationally.
- Preparation of audit reports and review documents.
- Understanding continuous improvement in health & safety parameters & environment.

| <b>Duration: 36 Hours</b>   | <b>Duration: 04 Hours</b>  |
|---|--|
| <b>Theory–Key Learning Outcomes</b>   | <b>Practical–Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"> <li>• General safety audit requirement and safety audit as per IS14489.</li> <li>• Roles &amp; responsibilities of parties involved in safety audit.</li> <li>• Safety audit checklist as per IS 14489.</li> <li>• General conditions &amp; safety audit.</li> <li>• Requirements and checklist as per ISO 45001.</li> <li>• Audit process and checklist for Construction, mining, oil &amp; gas, manufacturing, and chemical industries.</li> <li>• Inspection process of scaffoldings and PPEs.</li> </ul> | <ul style="list-style-type: none"> <li>• Prepare safety Audit plan.</li> <li>• Perform Safety audit.</li> <li>• Prepare audit and review documents.</li> </ul> |



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| <ul style="list-style-type: none"> <li>• Inspection of Electrical protective devices like MCB, RCCB, ELCB.</li> <li>• Preparation of Audit reports.</li> </ul> |  |
| <b>Classroom Aids:</b>   |  |
| Black/White Board, Computer, Projection Equipment, MS office & Design & drafting software, Facilitator’s Guide, Participant’s Handbook.                        |  |
| <b>Tools, Equipment and Other Requirements</b>   |  |
| Regulations, Books, Handouts, Laptop/computer, internet.   |  |

## Module 10: Identify impact of pollution, perform environment impact analysis, Learn waste management techniques.

Mapped to SSD/N0112, v1.0

### Terminal Outcomes:

- Identification and understanding impact of pollution.
- Performing Environmental Impact Assessment.
- Learning waste management techniques.

| Duration: 36 Hours   | Duration: 14 Hours   |
|--|--|
| Theory–Key Learning Outcomes   | Practical–Key Learning Outcomes  |
| <ul style="list-style-type: none"> <li>• Introduction to Environment &amp; atmospheric pollution, deep dive into water pollution, land pollution, noise pollution, air quality, ill effects, and control.</li> <li>• Introduction to waste management, its disposal techniques, Learn about effluent treatment plants.</li> <li>• Introduction to Hazardous waste management &amp; 6R’s (Reuse, reduce, repair, refuse, recycle, reimagine).</li> <li>• Overview on the regulatory requirements of Central Pollution control Board &amp; State Pollution Control Board.</li> <li>• Introduction to Environment Protection Act, 1986” &amp; KYOTO protocol.</li> <li>• Introduction to remote sensing, air monitoring, biological monitoring, soil monitoring and water monitoring. Learn how they play an important role in environment monitoring.</li> </ul> | <ul style="list-style-type: none"> <li>• Identify &amp; analyze impact of pollution.</li> <li>• Carry out environmental impact assessment.</li> <li>• Plan waste management techniques.</li> </ul> |



|   |  |
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| <ul style="list-style-type: none"> <li>● Introduction to EIA- Environmental impact assessment and LCI- Life cycle Impact assessment. Requirement of EIA and LCI.</li> <li>● Introduction to global warming and climate change, greenhouse gases &amp; greenhouse effect, carbon cycle, carbon footprints, carbon neutrality &amp; Carbon credits. Learn how they affect the environment and steps taken towards sustainability.</li> <li>● Introduction to ozone layer, ozone layer depletion, notifying elements affecting ozone layer, acid rain, wet deposition, dry deposition, and its factors.</li> <li>● Introduction to the term Eco-friendly, energy conservation methods using solar, hydro, wind, biomass, water, and harvesting.</li> </ul> |  |
| <p><b>Classroom Aids:</b></p>   |  |
| <p>Black/White Board, Computer, Projection Equipment, MS office &amp; Design &amp; drafting software, Facilitator’s Guide, Participant’s Handbook.</p>  |  |
| <p><b>Tools, Equipment and Other Requirements</b></p>   |  |
| <p>Safety goggles, Full face shield, Leather gloves , Puncture resistant gloves, Chemical resistant gloves, Electrically insulated latex gloves, Safety helmets/hard hats, Ear plugs, Ear muffs, Safety shoes, Safety gumboots, High visibility jackets, N95 masks, Double filter half face mask, Double filter full face mask, SCBA – Self-contained breathing apparatus, Safety harness, Lanyard, Fall arrestor, CO2 Fire extinguisher, Dry Chemical Powder Fire extinguisher, Fire hydrant system, Multiple gas detector, TDS Meter.</p>   |  |

Module 11: Planning and organizing to provide a safe working environment for workers and set emergency protocols and measure in case of any unforeseen and incidents or accidents to minimize the damages & losses.

*Mapped to SSD/N0104, v1.0*

Terminal Outcomes:

- Planning of resources for own work and communication to concerned subordinates, co-workers, and superiors.
- Provide necessary support to subordinates, coordinate with co-workers and liaise with superiors and monitor.
- Setting up emergency protocols and implementing them at working places to minimize the loss in case of any incident or accident.



|  |   |
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| <b>Duration: 36 Hours</b>  | <b>Duration: 14 Hours</b>   |
| <b>Theory–Key Learning Outcomes</b>  | <b>Practical–Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• Planning of resources and communication to subordinates, co-workers, and superiors.</li> <li>• Introduction to hierarchy of organization and modes of communication to team members.</li> <li>• Introduction to identifying the task and distribution among subordinates, supervision, and coordination among the team members for readiness in sync with overall task &amp; timelines.</li> <li>• Introduction to supervision and monitoring of a task to ensure timely completion of such work.</li> <li>• Setting up emergency protocols and implementation at working places to minimize the loss in case of any incident or accident.</li> <li>• Setting up evacuation plans, evacuation drills, assembly area, emergency communication &amp; guidance.</li> </ul> | <ul style="list-style-type: none"> <li>• Plan resources and communication methodologies to subordinates, co-workers, and superiors.</li> <li>• Prepare necessary support to subordinates, coordinate with co-workers and liaison with superiors and monitoring.</li> <li>• Set up emergency protocols and implement them at working places to minimize loss in case of any incident or accident.</li> </ul> |
| <b>Classroom Aids:</b>   |   |
| Black/White Board, Computer, Projection Equipment, MS office & Design & drafting software, Facilitator’s Guide, Participant’s Handbook.  |   |
| <b>Tools, Equipment and Other Requirements</b>   |   |
| Safety goggles, Full face shield, Leather gloves , Puncture resistant gloves, Chemical resistant gloves, Electrically insulated latex gloves, Safety helmets/hard hats, Ear plugs, Ear muffs, Safety shoes, Safety gumboots, High visibility jackets, N95 masks, Double filter half face mask, Double filter full face mask, SCBA – Self-contained breathing apparatus, Safety harness, Lanyard, Fall arrestor, CO2 Fire extinguisher, Dry Chemical Powder Fire extinguisher, Fire hydrant system, Multiple gas detector, TDS Meter.   |   |

## Module 12: Understand scope in employment, financial dealing, digital literacy and communication with employer or customer

Mapped to DGT/VSQ/N0102

Terminal Outcomes:

- Describe the traits of individual at workplace.
- Demonstrate apply employability and entrepreneurship skills at workplace.

|                        |                        |
|------------------------|------------------------|
| <b>Duration: 36:00</b> | <b>Duration: 24:00</b> |
|------------------------|------------------------|



| Theory – Key Learning Outcomes  | Practical – Key Learning Outcomes   |
|---|---|
| <ul style="list-style-type: none"><li>• Discuss the importance of Employability Skills in meeting the job requirements.</li><li>• Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen.</li><li>• Discuss 21st century skills.</li><li>• Display positive attitude, self -motivation, problem solving, time management skills and continuous learning mindset in different situations.</li><li>• Discuss the significance of reporting sexual harassment issues in time.</li><li>• Discuss the significance of using financial products and services safely and securely.</li><li>• Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws.</li><li>• Explain the importance of managing expenses, income, and savings.</li><li>• Discuss the significance of using internet for browsing, accessing social media platforms, safely and securely.</li><li>• Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges.</li><li>• Differentiate between types of customers.</li><li>• Explain the significance of identifying customer needs and addressing them.</li><li>• Discuss the significance of maintaining hygiene and dressing appropriately.</li><li>• Discuss the significance of dressing up neatly and maintaining hygiene for an interview.</li><li>• Discuss how to search and register for apprenticeship opportunities.</li></ul> | <ul style="list-style-type: none"><li>• Show how to practice different environmentally sustainable practices.</li><li>• Use appropriate basic English sentences/phrases while speaking.</li><li>• Demonstrate how to communicate in a well -mannered way with others.</li><li>• Demonstrate working with others in a team.</li><li>• Show how to conduct oneself appropriately with all genders and PwD.</li><li>• Show how to operate digital devices and use the associated applications and features, safely and securely.</li><li>• Create a biodata.</li><li>• Use various sources to search and apply for jobs.</li></ul> |
| <b>Classroom Aids:</b>  |   |
| Black/White Board, Computer, Projection Equipment, PowerPoint Presentation and software, Facilitator’s Guide, Participant’s Handbook.   |   |



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| <b>Tools, Equipment and Other Requirements</b> |
| Laptop/computer, internet, mobile              |

## On the Job Training Plan: Advance Scaffold Inspector

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| <b>Occupational Safety, Health, and Environment (OSHE) Management : 20 Hours</b>   |
| <b>Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"><li>• Workout health &amp; safety requirements of the organization.</li><li>• Identify fire hazards at the workplace &amp; evacuation during fire.</li><li>• Formulate safety policy for contractor onboarding.</li></ul>  |
| <b>Hazard Identification &amp; Risk Analysis : 20 Hours</b>  |
| <b>Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"><li>• Identify hazards</li><li>• Perform Hazard and Operability Analysis (HAZOP).</li><li>• Perform Hazard Identification and Risk Assessment (HIRA)</li></ul>   |
| <b>Fire Safety, fire-fighting equipments, and fire evacuation plan : 20 Hours</b>  |
| <b>Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"><li>• Identify fire hazards at the workplace.</li><li>• Develop systematic approach in identifying and correcting probable fire accidents and suggest fire-fighting equipment.</li><li>• Operate fire extinguisher and fire hydrant.</li><li>• Prepare an Emergency evacuation plan.</li></ul> |
| <b>Hazards Mitigation Methodologies : 10 Hours</b>   |
| <b>Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"><li>• Formulate hierarchy of control in risk mitigation.</li><li>• Identify residual or hidden risks &amp; control measures.</li></ul>   |
| <b>Hazard and risk perception : 10 Hours</b>   |
| <b>Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"><li>• Formulate monitor ways of hazards.</li><li>• Analyze risk tolerance capability of individuals.</li></ul>   |



**Safety auditing and inspection : 20 Hours**

**Key Learning Outcomes**

- Perform safety Audit & Inspections.
- Prepare audit and review documents.

**Pollution & Environment Management, Global warming, and sustainability : 10 Hours**

**Key Learning Outcomes**

- Identify & analyze impact of pollution.
- Carry out environmental impact assessment.
- Plan waste management techniques.

**Plan, Organize and Emergency protocols : 10 hours**

**Key Learning Outcomes**

- Planning of resources and communication to concerned subordinates, co-workers, and superiors.
- Prepare necessary support to subordinates, coordinate with co-workers and liaison with superiors and monitoring.
- Set up emergency protocols and implement them at working places to minimize loss in case of any incident or accident.

**Total Duration of OJT – 120 Hours ( 2.5 weeks)**



## Annexure

### Trainer Requirements

| Trainer Prerequisites                               |  |                              |                |                     |                |         |
|---|--|------------------------------|----------------|---------------------|----------------|---------|
| Minimum Educational Qualification                   | Specialization   | Relevant Industry Experience |                | Training Experience |                | Remarks |
|   |  | Years                        | Specialization | Years               | Specialization |         |
| ITI/12 <sup>th</sup> Pass                           | Any domain   | 15                           | Safety Domain  | 0                   | -              |         |
| Graduate in any discipline / Diploma in Engineering | Civil, Mechanical, Manufacturing, Mining, Production, Industrial, Chemical, Safety, Petroleum Engineering, Mathematics, Physics degree and others. | 8                            | Safety Domain  | 0                   | -              |         |
| M. Tech/ B. Tech                                    | Civil, Mechanical, Manufacturing, Mining, Production, Industrial, Chemical, Safety, Petroleum Engineering and others.                              | 5                            | Safety Domain  | 0                   | -              |         |

| Trainer Certification   |   |
|---|---|
| Domain Certification  | Platform Certification  |
| Certified as Trainer for the Job Role “SSD/Q0106 v1.0: Manager (OSHE)” or higher qualification as | Recommended that the Trainer is certified for the Job Role: “Trainer (VET and Skills)”, mapped to the |



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| per career progression by SSDF. The minimum accepted score is 80%. | Qualification Pack: “MEP/Q2601 v2.0”. The minimum accepted score is 80%. |
|--|--|

## Assessor Requirements

| Assessor Prerequisites                              |   |                              |                |                                |                |         |
|---|---|------------------------------|----------------|--------------------------------|----------------|---------|
| Minimum Educational Qualification                   | Specialization  | Relevant Industry Experience |                | Training/Assessment Experience |                | Remarks |
|   |   | Years                        | Specialization | Years                          | Specialization |         |
| ITI/12 <sup>th</sup> Pass                           | Any domain  | 15                           | Safety Domain  | 0                              | -              |         |
| Graduate in any discipline / Diploma in Engineering | Civil, Mechanical, Manufacturing, Mining, Production, Industrial, Chemical, Safety, Petroleum Engineering, Mathematics, Physics degree and others | 8                            | Safety Domain  | 0                              | -              |         |
| M. Tech/ B. Tech                                    | Civil, Mechanical, Manufacturing, Mining, Production, Industrial, Chemical, Safety, Petroleum Engineering and others.                             | 5                            | Safety Domain  | 0                              | -              |         |



| Assessor Certification  |  |
|---|--|
| Domain Certification  | Platform Certification   |
| Certified as assessor for the QP: “SSD/Q0106 v1.0 : Manager (OSHE)” or higher qualification as per career progression. The minimum accepted score is 80%. | Recommended that the Assessor is certified for the Job Role: “Assessor (VET and Skills)”, mapped to the Qualification Pack: “MEP/Q2701 v2.0”. The minimum accepted score is 80%. |

## Assessment Strategy

The assessment will be based on the concept of third-party assessments through certified assessors with empanelled Assessment Agencies of NCVET. The certification of each assessor will be done by SSDF through a process of selection, training, assessment & certification through training of the assessor's program.

The assessments will include both formative & summative. The progressive assessments will be through a trainer during the progress of the training. The summative assessments will be carried by the assessor through assessment agencies.

The assessment process will find whether the candidate or professional is competent or not to perform the job as per expected performance criteria. The assessment plan contains the following information:

- Assessment elements – Competencies based on performance criteria of each NOS.
- Methods of assessment – Written test (online/offline), viva and practical/ field exercises.
- Time of assessment – The assessment will be done both formative and summative (post orientation/training) of candidates.
- Place i.e., context of the assessment - The assessment will be conducted through theory, viva voice and practical/ field exercises, on simulators and will be both online or offline modes.
- The criteria for decision making– It will be based on assessment criteria & guidelines as given the qualification pack.
- Questions – The written questions, viva & practical questions will be set to cover all aspects of performance criteria and would have been validated from experts in the subject matter.
- Passing criteria & gradings – The passing criteria & gradings will be as per passing criteria given for each NOS and Guidelines for Assessment.

## Glossary

| Term                  | Description   |
|-----------------------|---|
| Declarative Knowledge | Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood to accomplish or to solve a problem. |

|                      |  |
|----------------------|--|
| Key Learning Outcome | Key learning outcome is the statement of what a learner needs to know, understand and be able to do to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training Outcome is specified in terms of knowledge, understanding(theory)and skills (practical application). |
| OJT(M)               | On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site   |
| OJT(R)               | On-the-job training (Recommended); trainees are recommended the specified hours of training on site  |
| Procedural Knowledge | Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work, or produce a tangible work output by applying cognitive, affective, or psychomotor skills.  |
| Training Outcome     | Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training.   |
| Terminal Outcome     | Terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module. A set of terminal outcomes help to achieve the training outcome.  |

## Acronyms and Abbreviations

| Term | Description                             |
|------|---|
| QP   | Qualification Pack                      |
| NSQF | National Skills Qualification Framework |
| NSQC | National Skills Qualification Committee |
| NOS  | National Occupational Standard          |
| AB   | Awarding Body                           |
| AA   | Assessment Agency                       |
| TP   | Training Partner                        |