

## Qualification Pack



# Junior Tower Crane Operator/Signalman

QP Code: IES/Q0123

Version: 2.0

NSQF Level: 3

Infrastructure Equipment Skill Council || Avik Royale - First Floor (Next of Vijaya Bank), No.6, 50 feet  
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## Qualification Pack

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## Qualification Pack

### IES/Q0123: Junior Tower Crane Operator/Signalman

#### Brief Job Description

A junior tower crane operator/signalman in the work site is responsible for assisting the tower crane operators in loading and unloading of the materials. He provides directions for maneuvering the crane to the load lifting and releasing area. He is also responsible for safety during the crane operations.

#### Personal Attributes

The job requires an individual to be physically agile, strong and should have good eye sight. He should constantly be in contact with the operator and should maintain safety activities during the operations. He should possess basic numeracal skills and is required to be mentally alert at all times.

#### Applicable National Occupational Standards (NOS)

##### Compulsory NOS:

1. [IES/N0167: Assist in pre-lifting operations](#)
2. [IES/N0168: Assist in tower crane operations](#)
3. [IES/N0169: Assist in regular maintenance of the tower crane](#)
4. [IES/N7601: Comply with worksite health and safety guidelines](#)

#### Qualification Pack (QP) Parameters

|   |   |
|---|---|
| <b>Sector</b>   | Infrastructure Equipment  |
| <b>Sub-Sector</b>   | Equipment Operations  |
| <b>Occupation</b>   | Operator  |
| <b>Country</b>  | India   |
| <b>NSQF Level</b>   | 3   |
| <b>Aligned to NCO/ISCO/ISIC Code</b>                      | NCO-2015/8343.0700 Tower crane Operator                                 |
| <b>Minimum Educational Qualification &amp; Experience</b> | 8th Class (OR 10th class without experience) with 2 Years of experience |

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|  |                    |
|--|--------------------|
| <b>Minimum Level of Education for Training in School</b> |                    |
| <b>Pre-Requisite License or Training</b>                 | NA                 |
| <b>Minimum Job Entry Age</b>                             | 18 Years           |
| <b>Last Reviewed On</b>                                  | 26/05/2022         |
| <b>Next Review Date</b>                                  | 26/05/2025         |
| <b>NSQC Approval Date</b>                                | 26/05/2022         |
| <b>Version</b>   | 2.0                |
| <b>Reference code on NQR</b>                             | 2022/IS/IESC/05911 |
| <b>NQR Version</b>                                       | 1.0                |

## Qualification Pack

### IES/N0167: Assist in pre-lifting operations

#### Description

This unit provides insight into activities required to be performed before lifting the load using crane

#### Scope

The scope covers the following :

- This unit/task covers the following: Pre-lifting operations

#### Elements and Performance Criteria

##### *Pre-lifting operations*

To be competent, the user/individual on the job must be able to:

- PC1.** check for availability of lifting gears, tools and tackles prior to starting lifting works
- PC2.** at the construction site, choose and apply adequate rigging gears for heavy material movement for structural components
- PC3.** check and double-check that the load is properly rigged to the sling according to the load's specifications
- PC4.** examine wire rope slings, webbing slings and chain slings for obstructions to lifting during crane operations
- PC5.** ensure that the equipment's structural components and assembly are located away from any above power lines or service lines
- PC6.** examine the work environment for barricading, signs and the availability of needed PPEs, as specified by standard practise
- PC7.** determine the weight of the load and the centre of gravity based on the weight of the load
- PC8.** examine the location for blind spots and assess the clearance of the swing route
- PC9.** set up and test communications for safe lifting operations with the crane operator
- PC10.** prepare base for lifting equipment and load to be lifted as per requirement and instruction from the supervisor

#### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the organization's operations, maintenance and safety policies
- KU2.** the company's operating standards and processes in
- KU3.** schedule for resolving the complaint/problem
- KU4.** reporting structure of the company
- KU5.** location and process for storage and disposal of waste material
- KU6.** location and procedure for trash storage and disposal
- KU7.** basic measuring, geometry and arithmetic calculation concepts

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- KU8.** linear measurement unit conversion
- KU9.** hand tools necessary for material lifting activity and its application
- KU10.** required nature of base level and compaction required for equipment during lifting
- KU11.** technique for guiding a suspended item to the site of construction using tag lines
- KU12.** the fundamental functioning mechanism of weight lifting equipment such as cranes, winches and so on
- KU13.** lifting tool and tackle specifications based on load lifting requirements

## Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** record information/observations on activities/incidents in accordance with the established standards
- GS2.** read and understand basic signs, symbols, graphs, charts and decals on equipment and at the job site
- GS3.** read and understand the applicable relevant aspects of the equipment operation & maintenance manuals
- GS4.** in interacting with coworkers and supervisor, utilise suitable technical terms/phrases
- GS5.** efficiently explain/instruct other team members in a clear and concise way
- GS6.** pay close attention to and comprehend the questions/comments offered by other team members
- GS7.** determine when to escalate the problem and seek assistance if it is out of scope
- GS8.** prioritise and plan equipment repair to suit operating demands
- GS9.** plan and organise the work schedule in collaboration with the rest of the team and the supervisor
- GS10.** execute the duties efficiently within the time limit given and within the quality standards set; with minimum supervision
- GS11.** ensure quality service is delivered as committed to achieve high levels of customer satisfaction
- GS12.** analyse potential solutions and take necessary corrective steps and activities
- GS13.** utilise common sense and reasoning abilities to determine the source of delays and execution issues
- GS14.** apply knowledge and judgement gained via experience and awareness to efficiently carry out activities

## Qualification Pack

### Assessment Criteria

| Assessment Criteria for Outcomes  | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|--------------|-----------------|---------------|------------|
| <i>Pre-lifting operations</i>   | <b>10</b>    | <b>25</b>       | -             | -          |
| <b>PC1.</b> check for availability of lifting gears, tools and tackles prior to starting lifting works                                  | 1            | 2               | -             | -          |
| <b>PC2.</b> at the construction site, choose and apply adequate rigging gears for heavy material movement for structural components     | 1            | 3               | -             | -          |
| <b>PC3.</b> check and double-check that the load is properly rigged to the sling according to the load's specifications                 | 1            | 2               | -             | -          |
| <b>PC4.</b> examine wire rope slings, webbing slings and chain slings for obstructions to lifting during crane operations               | 1            | 3               | -             | -          |
| <b>PC5.</b> ensure that the equipment's structural components and assembly are located away from any above power lines or service lines | 1            | 3               | -             | -          |
| <b>PC6.</b> examine the work environment for barricading, signs and the availability of needed PPEs, as specified by standard practise  | 1            | 3               | -             | -          |
| <b>PC7.</b> determine the weight of the load and the centre of gravity based on the weight of the load                                  | 1            | 2               | -             | -          |
| <b>PC8.</b> examine the location for blind spots and assess the clearance of the swing route  | 1            | 3               | -             | -          |
| <b>PC9.</b> set up and test communications for safe lifting operations with the crane operator  | 1            | 2               | -             | -          |
| <b>PC10.</b> prepare base for lifting equipment and load to be lifted as per requirement and instruction from the supervisor            | 1            | 2               | -             | -          |
| <b>NOS Total</b>  | <b>10</b>    | <b>25</b>       | -             | -          |

## Qualification Pack

### National Occupational Standards (NOS) Parameters

|                            |                                  |
|----------------------------|----------------------------------|
| <b>NOS Code</b>            | IES/N0167                        |
| <b>NOS Name</b>            | Assist in pre-lifting operations |
| <b>Sector</b>              | Infrastructure Equipment         |
| <b>Sub-Sector</b>          | Equipment Operations             |
| <b>Occupation</b>          | Operator                         |
| <b>NSQF Level</b>          | 3                                |
| <b>Credits</b>             | TBD                              |
| <b>Version</b>             | 2.0                              |
| <b>Last Reviewed Date</b>  | 26/05/2022                       |
| <b>Next Review Date</b>    | 26/05/2025                       |
| <b>NSQC Clearance Date</b> | 26/05/2022                       |



## Qualification Pack

### IES/N0168: Assist in tower crane operations

#### Description

This unit gives an insight into the activities that need to be performed by the signalman during the crane operations

#### Scope

The scope covers the following :

- This unit/task covers the following:
- Tower crane operations

#### Elements and Performance Criteria

##### *Tower Crane Operations*

To be competent, the user/individual on the job must be able to:

- PC1.** analyse the load characteristics including centre of gravity and lifting points to determine the method of slinging
- PC2.** communicate with the crane operator through lifting and maneuvering the load using the communication device or by hand signalling
- PC3.** before and during the lift, identify and double-check the load's route, including distances, clearances and landing location
- PC4.** guarantee load balance and stability by constantly monitoring the load during the process
- PC5.** while the cargo is landing, communicate with the crane operator and others on the jobsite
- PC6.** construct a basis for material unloading at the jobsite with the supervisor and other workers
- PC7.** assist the site supervisor to cordon off lifting and lowering area using barricades, where applicable, according to lifting plan requirements

#### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the organization's operational, maintenance and safety policies
- KU2.** the operational standards & procedures followed in the company
- KU3.** reporting structure of the company
- KU4.** location of specialized tools and the equipment
- KU5.** location and procedure for trash storage and disposal
- KU6.** contact person/area in case of emergency
- KU7.** crane technical specifications, features and performance
- KU8.** tower Crane equipment, its limitations and all the dynamics involved in crane and boom movement and lifting
- KU9.** factors that affect equipment stability, such as ground and supporting conditions

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- KU10.** actual and potential risks include overhead utilities and guide wires, as well as other equipment, employees and automobile traffic
- KU11.** to avoid damage, safety precautions must be taken in the event of an emergency
- KU12.** personnel positions on-site, such as supervisor, operator and others

## Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** record information/observations on activities/incidents in accordance with the established standards
- GS2.** read and understand basic signs, symbols, graphs, charts and decals on equipment and at the job site
- GS3.** read and understand the applicable relevant aspects of the equipment operation & maintenance manuals
- GS4.** in interacting with coworkers and supervisor, utilise suitable technical terms/phrases
- GS5.** efficiently explain/instruct other team members in a clear and concise way
- GS6.** pay close attention to and comprehend the questions/comments offered by other team members
- GS7.** determine when to escalate the problem and seek assistance if it is out of scope
- GS8.** prioritise and plan equipment repair to suit operating demands
- GS9.** plan and organise the work schedule in collaboration with the rest of the team and the supervisor
- GS10.** execute the duties efficiently within the time limit given and within the quality standards set; with minimum supervision
- GS11.** ensure quality service is delivered as committed to achieve high levels of customer satisfaction
- GS12.** analyse potential solutions and take necessary corrective steps and activities
- GS13.** utilise common sense and reasoning abilities to determine the source of delays and execution issues
- GS14.** apply knowledge and judgement gained via experience and awareness to efficiently carry out activities

## Qualification Pack

### Assessment Criteria

| Assessment Criteria for Outcomes  | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|--------------|-----------------|---------------|------------|
| <i>Tower Crane Operations</i>   | <b>10</b>    | <b>20</b>       | -             | -          |
| <b>PC1.</b> analyse the load characteristics including centre of gravity and lifting points to determine the method of slinging                           | 2            | 3               | -             | -          |
| <b>PC2.</b> communicate with the crane operator through lifting and maneuvering the load using the communication device or by hand signalling             | 2            | 3               | -             | -          |
| <b>PC3.</b> before and during the lift, identify and double-check the load's route, including distances, clearances and landing location                  | 2            | 3               | -             | -          |
| <b>PC4.</b> guarantee load balance and stability by constantly monitoring the load during the process   | 1            | 3               | -             | -          |
| <b>PC5.</b> while the cargo is landing, communicate with the crane operator and others on the jobsite   | 1            | 3               | -             | -          |
| <b>PC6.</b> construct a basis for material unloading at the jobsite with the supervisor and other workers   | 1            | 3               | -             | -          |
| <b>PC7.</b> assist the site supervisor to cordon off lifting and lowering area using barricades, where applicable, according to lifting plan requirements | 1            | 2               | -             | -          |
| <b>NOS Total</b>  | <b>10</b>    | <b>20</b>       | -             | -          |

## Qualification Pack

### National Occupational Standards (NOS) Parameters

|                            |                                  |
|----------------------------|----------------------------------|
| <b>NOS Code</b>            | IES/N0168                        |
| <b>NOS Name</b>            | Assist in tower crane operations |
| <b>Sector</b>              | Infrastructure Equipment         |
| <b>Sub-Sector</b>          | Equipment Operations             |
| <b>Occupation</b>          | Operator                         |
| <b>NSQF Level</b>          | 3                                |
| <b>Credits</b>             | TBD                              |
| <b>Version</b>             | 2.0                              |
| <b>Last Reviewed Date</b>  | 26/05/2022                       |
| <b>Next Review Date</b>    | 26/05/2025                       |
| <b>NSQC Clearance Date</b> | 26/05/2022                       |

## Qualification Pack

### IES/N0169: Assist in regular maintenance of the tower crane

#### Description

This unit provides insight into activities that are required for performing routine maintenance and troubleshooting of a tower crane.

#### Scope

The scope covers the following :

- This unit/task covers the following:
- Routine maintenance
- Repair and troubleshooting
- Documentation and reporting

#### Elements and Performance Criteria

##### *Routine maintenance*

To be competent, the user/individual on the job must be able to:

- PC1.** assist in the replenishment of coolants, lubricants and fluids in accordance with the machine's operation manual
- PC2.** assist in regularly greasing all greasing pins, trolley pins, hoist and rope and slewing bolts based on machine usage
- PC3.** service lubrication system, electrical service system, hoisting system and stabilising system in accordance with the operation manual
- PC4.** service Jib/boom and mast as directed by the operator/supervisor
- PC5.** check the battery levels and the condition of the terminals and make adjustments as needed
- PC6.** after using the tools, return them to their proper location in accordance with the organization's policies

##### *Repair and troubleshooting*

To be competent, the user/individual on the job must be able to:

- PC7.** ensure the main power is turned off from panel completely before carrying out maintenance work
- PC8.** while troubleshooting, utilise suitable tools
- PC9.** if a fault is found that is outside the scope of the position, notify the operator/supervisor immediately
- PC10.** dispose waste as per the guidelines of the site/ organization

##### *Reporting and documentation*

To be competent, the user/individual on the job must be able to:

- PC11.** adhere to the reporting procedures established by the employer
- PC12.** complete all documents in accordance with the required requirements on time

#### Knowledge and Understanding (KU)

## Qualification Pack

The individual on the job needs to know and understand:

- KU1.** the organization's operational, maintenance and safety policies
- KU2.** the operational standards & procedures followed in the company and schedule for resolving the complaint/problem if any
- KU3.** reporting structure of the company
- KU4.** location of specialized tools and the equipment
- KU5.** location and procedure for trash storage and disposal
- KU6.** maintenance schedule of the equipment
- KU7.** types of motor and its uses
- KU8.** basic physics principles and its applications
- KU9.** basic of weight balancing
- KU10.** the fundamentals of electrical systems, including the control panel
- KU11.** common defects and general causes of breakdown
- KU12.** spill kit procedures

## Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** record information/observations on activities/incidents in accordance with the established standards
- GS2.** read and understand basic signs, symbols, graphs, charts, and decals on equipment and at the job site
- GS3.** read and comprehend the essential elements of the equipment operation and maintenance manuals
- GS4.** in interacting with coworkers and supervisor, utilise suitable technical terms/phrases
- GS5.** efficiently explain/instruct other team members in a clear and concise way
- GS6.** pay close attention to and comprehend the questions/comments offered by other team members
- GS7.** determine when to escalate the problem and seek assistance if it is out of scope
- GS8.** prioritise and plan equipment repair to suit operating demands
- GS9.** plan and organise the work schedule in collaboration with the rest of the team and the supervisor
- GS10.** execute the duties efficiently within the time limit given and within the quality standards set; with minimum supervision
- GS11.** ensure quality service is delivered as committed to achieve high levels of customer satisfaction
- GS12.** analyse potential solutions and take necessary corrective steps and activities
- GS13.** utilise common sense and reasoning abilities to determine the source of delays and execution issues
- GS14.** apply knowledge and judgement gained via experience and awareness to efficiently carry out activities

## Qualification Pack

### Assessment Criteria

| Assessment Criteria for Outcomes  | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|--------------|-----------------|---------------|------------|
| <i>Routine maintenance</i>  | <b>5</b>     | <b>6</b>        | -             | -          |
| <b>PC1.</b> assist in the replenishment of coolants, lubricants and fluids in accordance with the machine's operation manual                      | 0.5          | 1               | -             | -          |
| <b>PC2.</b> assist in regularly greasing all greasing pins, trolley pins, hoist and rope and slewing bolts based on machine usage                 | 1            | 1               | -             | -          |
| <b>PC3.</b> service lubrication system, electrical service system, hoisting system and stabilising system in accordance with the operation manual | 1            | 1               | -             | -          |
| <b>PC4.</b> service Jib/boom and mast as directed by the operator/supervisor  | 1            | 1               | -             | -          |
| <b>PC5.</b> check the battery levels and the condition of the terminals and make adjustments as needed  | 1            | 1               | -             | -          |
| <b>PC6.</b> after using the tools, return them to their proper location in accordance with the organization's policies                            | 0.5          | 1               | -             | -          |
| <i>Repair and troubleshooting</i>   | <b>2</b>     | <b>4</b>        | -             | -          |
| <b>PC7.</b> ensure the main power is turned off from panel completely before carrying out maintenance work  | 0.5          | 1               | -             | -          |
| <b>PC8.</b> while troubleshooting, utilise suitable tools   | 0.5          | 1               | -             | -          |
| <b>PC9.</b> if a fault is found that is outside the scope of the position, notify the operator/supervisor immediately                             | 0.5          | 1               | -             | -          |
| <b>PC10.</b> dispose waste as per the guidelines of the site/ organization  | 0.5          | 1               | -             | -          |
| <i>Reporting and documentation</i>  | <b>1</b>     | <b>2</b>        | -             | -          |
| <b>PC11.</b> adhere to the reporting procedures established by the employer   | 0.5          | 1               | -             | -          |

### Qualification Pack

| Assessment Criteria for Outcomes   | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|--------------|-----------------|---------------|------------|
| <b>PC12.</b> complete all documents in accordance with the required requirements on time | 0.5          | 1               | -             | -          |
| <b>NOS Total</b>   | <b>8</b>     | <b>12</b>       | -             | -          |



## Qualification Pack

### National Occupational Standards (NOS) Parameters

|                            |  |
|----------------------------|--|
| <b>NOS Code</b>            | IES/N0169  |
| <b>NOS Name</b>            | Assist in regular maintenance of the tower crane |
| <b>Sector</b>              | Infrastructure Equipment                         |
| <b>Sub-Sector</b>          | Equipment Operations                             |
| <b>Occupation</b>          | Operator   |
| <b>NSQF Level</b>          | 3  |
| <b>Credits</b>             | TBD  |
| <b>Version</b>             | 2.0  |
| <b>Last Reviewed Date</b>  | 26/05/2022                                       |
| <b>Next Review Date</b>    | 26/05/2025                                       |
| <b>NSQC Clearance Date</b> | 26/05/2022                                       |

## Qualification Pack

### IES/N7601: Comply with worksite health and safety guidelines

#### Description

This unit is about adhering to health and safety requirements at the worksite during equipment operations.

#### Scope

The scope covers the following :

- Worksite health and safety

#### Elements and Performance Criteria

##### *Worksite health and safety*

To be competent, the user/individual on the job must be able to:

- PC1.** Comply with safety, health, security and environment related regulations/guidelines at the work site
- PC2.** use personal protective equipment (ppe) and other safety gear as applicable to the equipment and the worksite
- PC3.** Follow safety measures during operations to ensure that the health and safety of self or others (including members of the public) is not at risk
- PC4.** Carry out operations as per the manufacturer's and worksite related health and safety guidelines
- PC5.** Handle the transport, storage and disposal of hazardous materials and waste in compliance with worksite health, safety and environmental guidelines
- PC6.** operate various grades of fire extinguishers, as applicable
- PC7.** support in administering basic first aid and report to concerned team members, as required, in case of an accident
- PC8.** respond promptly and appropriately to an accident/ incident or emergency, within limits of your role and responsibility
- PC9.** record and report details related to operations, incidents or accidents, as applicable

#### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** health, safety, environmental (HSE) and security related policies/guidelines of the organization and the worksite and its importance
- KU2.** personnel responsible for health, safety and environment (HSE) related matters and their contact details
- KU3.** location of worksite storage, she team and safe assembly points
- KU4.** reporting and documentation procedures for HSE and security matters
- KU5.** manufacturers guidelines related to health and safety requirements

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- KU6.** common types of health, safety, environment and security risks related to the worksite and operations
- KU7.** types, use and importance of personal protective equipment (PPE) and other safety gear
- KU8.** safe working practices to avoid common hazards and risks
- KU9.** guidelines for transport, storage and disposal of hazardous materials and waste
- KU10.** types of common hazards and risks at the worksite including fire, electrical, gas emergencies, accidents, incidents, structure collapse, machine breakdown
- KU11.** knowledge of safe lockdown/stop of machinery use in case of emergencies and incidents/accidents
- KU12.** types of fire extinguishers and their use
- KU13.** common injuries and appropriate basic first aid treatment e.g. electrical shock, bleeding, wounds, fractures, minor burns, eye injuries

## Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** document and report any health and safety related incidents/accidents
- GS2.** read and comprehend basic English to read manuals of operations
- GS3.** read all organizational and equipment related health and safety manuals and documents
- GS4.** read instructions, guidelines / procedures /rules related to the worksite and equipment operations
- GS5.** Give clear instructions to co-workers, subordinates and other personnel
- GS6.** Use correct technical terms while interacting with supervisor
- GS7.** Make an appropriate timely decision in responding to emergencies/accidents in line with organizational/worksite guidelines
- GS8.** Use correct PPE and other safety gear while at the worksite
- GS9.** Work with supervisors/ team mates to carry out work related tasks
- GS10.** Plan work according to the required schedule and location
- GS11.** Build and maintain positive and effective relationships with colleagues and customers
- GS12.** Seek appropriate assistance from other sources to resolve problems
- GS13.** Assess the intensity of the fire accident and operate fire extinguishers
- GS14.** Analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently

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### Assessment Criteria

| Assessment Criteria for Outcomes  | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|--------------|-----------------|---------------|------------|
| <i>Worksite health and safety</i>   | <b>5</b>     | <b>10</b>       | -             | -          |
| <b>PC1.</b> Comply with safety, health, security and environment related regulations/guidelines at the work site  | 0.5          | 1               | -             | -          |
| <b>PC2.</b> use personal protective equipment (ppe) and other safety gear as applicable to the equipment and the worksite                                       | 0.5          | 1               | -             | -          |
| <b>PC3.</b> Follow safety measures during operations to ensure that the health and safety of self or others (including members of the public) is not at risk    | 0.5          | 1               | -             | -          |
| <b>PC4.</b> Carry out operations as per the manufacturer's and worksite related health and safety guidelines  | 0.5          | 1               | -             | -          |
| <b>PC5.</b> Handle the transport, storage and disposal of hazardous materials and waste in compliance with worksite health, safety and environmental guidelines | 1            | 1               | -             | -          |
| <b>PC6.</b> operate various grades of fire extinguishers, as applicable   | 0.5          | 2               | -             | -          |
| <b>PC7.</b> support in administering basic first aid and report to concerned team members, as required, in case of an accident                                  | 0.5          | 1               | -             | -          |
| <b>PC8.</b> respond promptly and appropriately to an accident/ incident or emergency, within limits of your role and responsibility                             | 0.5          | 1               | -             | -          |
| <b>PC9.</b> record and report details related to operations, incidents or accidents, as applicable  | 0.5          | 1               | -             | -          |
| <b>NOS Total</b>  | <b>5</b>     | <b>10</b>       | -             | -          |

## Qualification Pack

### National Occupational Standards (NOS) Parameters

|                            |   |
|----------------------------|---|
| <b>NOS Code</b>            | IES/N7601   |
| <b>NOS Name</b>            | Comply with worksite health and safety guidelines |
| <b>Sector</b>              | Infrastructure Equipment                          |
| <b>Sub-Sector</b>          | Equipment Operations                              |
| <b>Occupation</b>          | Operator  |
| <b>NSQF Level</b>          | 4   |
| <b>Credits</b>             | TBD   |
| <b>Version</b>             | 2.0   |
| <b>Last Reviewed Date</b>  | 26/05/2022  |
| <b>Next Review Date</b>    | 31/05/2025  |
| <b>NSQC Clearance Date</b> | 26/05/2022  |

## Assessment Guidelines and Assessment Weightage

### Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).

## Qualification Pack

4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.

5. In case of successfully passing only certain number of NOSs, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.

6. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

### Minimum Aggregate Passing % at QP Level : 70

(Please note: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

## Assessment Weightage

### Compulsory NOS

| National Occupational Standards                             | Theory Marks | Practical Marks | Project Marks | Viva Marks | Total Marks | Weightage  |
|---|--------------|-----------------|---------------|------------|-------------|------------|
| IES/N0167.Assist in pre-lifting operations                  | 10           | 25              | 0             | 0          | 35          | 35         |
| IES/N0168.Assist in tower crane operations                  | 10           | 20              | 0             | 0          | 30          | 35         |
| IES/N0169.Assist in regular maintenance of the tower crane  | 8            | 12              | 0             | 0          | 20          | 20         |
| IES/N7601.Comply with worksite health and safety guidelines | 5            | 10              | 0             | 0          | 15          | 10         |
| <b>Total</b>  | <b>33</b>    | <b>67</b>       | <b>0</b>      | <b>0</b>   | <b>100</b>  | <b>100</b> |

## Qualification Pack

### Acronyms

|             |   |
|-------------|---|
| <b>NOS</b>  | National Occupational Standard(s)               |
| <b>NSQF</b> | National Skills Qualifications Framework        |
| <b>QP</b>   | Qualifications Pack                             |
| <b>TVET</b> | Technical and Vocational Education and Training |

## Qualification Pack

### Glossary

|  |  |
|--|--|
| <b>Sector</b>                                | Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.  |
| <b>Sub-sector</b>                            | Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.   |
| <b>Occupation</b>                            | Occupation is a set of job roles, which perform similar/ related set of functions in an industry.  |
| <b>Job role</b>                              | Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.  |
| <b>Occupational Standards (OS)</b>           | OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts. |
| <b>Performance Criteria (PC)</b>             | Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.  |
| <b>National Occupational Standards (NOS)</b> | NOS are occupational standards which apply uniquely in the Indian context.   |
| <b>Qualifications Pack (QP)</b>              | QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.   |
| <b>Unit Code</b>                             | Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'  |
| <b>Unit Title</b>                            | Unit title gives a clear overall statement about what the incumbent should be able to do.  |
| <b>Description</b>                           | Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.   |
| <b>Scope</b>                                 | Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.  |



## Qualification Pack

|   |  |
|---|--|
| <b>Knowledge and Understanding (KU)</b> | Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.   |
| <b>Organisational Context</b>           | Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.   |
| <b>Technical Knowledge</b>              | Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.   |
| <b>Core Skills/ Generic Skills (GS)</b> | Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles. |
| <b>Electives</b>                        | Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.  |
| <b>Options</b>                          | Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.  |