

## Qualification Pack



• **Compactor**

# Compactor Operator

QP Code: IES/Q0106

NSQF Level: 4

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

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## Qualification Pack

### IES/Q0106: Compactor Operator

#### Brief Job Description

A compactor operator drives and controls the compaction operations. The job requirements are to distribute and compress to give a finished surface to cooling asphalt. Compactor operators may also be required to compact earth fills, sub grades and flexible bases.

#### Personal Attributes

This job requires the individual to have good hand eye coordination as also comply with industry regulations. Willingness to work, strong work ethics, and courteous behavior with co workers are equally desirable. He should also be physically agile, strong, have good eye sight and not suffer from colour-blindness.

#### Applicable National Occupational Standards (NOS)

##### Compulsory NOS:

1. [IES/N0116: Carry out pre-operation checks on a compactor](#)
2. [IES/N0117: Operate a Compactor](#)
3. [IES/N0118: Perform routine maintenance and troubleshooting of a compactor](#)
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>	4
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2004/8332.55
<b>Minimum Educational Qualification &amp; Experience</b>	8th Class with 2-3 Years of experience In lieu of minimum qualification, the incumbent should have 2 year of experience in driving compactor.
<b>Minimum Level of Education for Training in School</b>	

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<b>Pre-Requisite License or Training</b>	1. Certification Training in Wheel Loader Operations preferred. 2. Must have a valid Heavy Commercial Vehicle Driving License (HCV)
<b>Minimum Job Entry Age</b>	18 Years
<b>Last Reviewed On</b>	31/03/2015
<b>Next Review Date</b>	30/06/2020
<b>NSQC Approval Date</b>	18/06/2015
<b>Version</b>	1.0

## Qualification Pack

### IES/N0116: Carry out pre-operation checks on a compactor

#### Description

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Ability for activities that need to be carried out to prepare the compactor to operate for a shift.

#### Scope

This unit/task covers the following: Pre-operation checks Documentation and reporting

#### Elements and Performance Criteria

##### *Pre-Operation Checks*

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

- PC1.** adhere to time limits given by supervisor
- PC2.** ensure visual inspections are carried out on the body components for cracks
- PC3.** check the oil levels of engine, transmission, radiant coolant and brake to ensure that they areas per manufacturers indicators
- PC4.** check differential and hydraulic oil levels
- PC5.** conduct checks to ensure proper condition of parking brake, main horn, reverse horn and head
- PC6.** check fan belt tension, electrolyte level and terminal tightness
- PC7.** get visual inspection conducted to check the various controls, gauges, warning lamp and other safety devices
- PC8.** check and adjust driving position, rear and side mirrors, seat belts and set them as per comfort level
- PC9.** clean air filter dust bowls and check the gasket and inner filter
- PC10.** inspect the greasing points to ensure that all greasing pins and pivots points are well greased
- PC11.** examine the compressor unit and all fittings and air lines
- PC12.** keep footplates and steps clean and free from mud, dirt and oil
- PC13.** walk completely around the compactor checking that no one is under or on the machine before operating
- PC14.** check that all the manufacturers safety and maintenance and operation decals are available on the machine

##### *Documentation and Reporting*

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

- PC15.** maintain a checking/maintenance logbook to record all activities performed
- PC16.** report defects precisely to the supervisor if beyond scope of his role

#### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

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- KU1.** the organizations procedures and guidelines related to compactor operations
- KU2.** job specific documents e.g. daily maintenance checklist, operation manual and parts manual and importance of the same
- KU3.** common hazards in the work area and workplace procedures to deal with them
- KU4.** safety policy of the company
- KU5.** emergency organization of the specific work site
- KU6.** risk and impact of not following defined procedures/ work instructions
- KU7.** the performance standards & procedures followed in the company
- KU8.** reporting structure in the company
- KU9.** escalation matrix for reporting unresolved problems
- KU10.** timeframe in which the complaint/problem should be resolved
- KU11.** implications of delays in process to the company
- KU12.** cost of equipment and loss for the company that result from damage of equipment and direct/ indirect cost of accidents
- KU13.** work target and review mechanism with supervisor for obtaining/ giving feedback related to performance process
- KU14.** location of tools
- KU15.** contact person in case of queries on procedure or products
- KU16.** location and process for storage and disposal of waste material
- KU17.** different types of compactors and their use and function
- KU18.** working of engine, transmission, their use and function
- KU19.** principles of friction
- KU20.** steering mechanisms and correct way of steering on slopes
- KU21.** significance of greasing and oiling parts of a compactor that need routine lubrication
- KU22.** procedure of filling diesel, coolant in the machine
- KU23.** method of greasing and lubrication
- KU24.** method to identify the grade and quality of oil to be used
- KU25.** instrument panel, their location and operation
- KU26.** the various types of hand signals used on the site
- KU27.** controls, levers and switches in order to operate the compactor properly
- KU28.** optimal working condition of compactor components
- KU29.** optimal engine oil pressure, radiator coolant temperature
- KU30.** visual checks to identify damage, defects, cracks or leaks beforehand
- KU31.** the significance of all the safety and maintenance related decals on the machine

## Generic Skills (GS)

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

- GS1.** record any deviations/ incidents as per prescribed norms
- GS2.** read and comprehend basic english to read manuals of operations

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- GS3.** read instructions, guidelines/procedures/rules related to the worksite and equipment operations
- GS4.** give clear instructions to co-workers, subordinates and other personnel
- GS5.** use correct technical terms while interacting with supervisor
- GS6.** decide when to conduct maintenance checks
- GS7.** work with supervisors/ team mates to carry out work related tasks
- GS8.** plan work according to the required schedule and location
- GS9.** plan for cleaning and lubricating the compactor every day
- GS10.** provide service of the highest order to ensure customer satisfaction
- GS11.** identify immediate or temporary solutions to resolve mechanical issues
- GS12.** judge when to seek assistance from supervisor
- GS13.** identify cause and effect relations in his area of work
- 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>Pre-Operation Checks</i>	<b>5</b>	<b>39</b>	-	-
<b>PC1.</b> adhere to time limits given by supervisor	-	2	-	-
<b>PC2.</b> ensure visual inspections are carried out on the body components for cracks	-	3	-	-
<b>PC3.</b> check the oillevels of engine,transmission, radiantcoolant and brake toensure that they areas per manufacturersindicators	1	3	-	-
<b>PC4.</b> check differential and hydraulic oil levels	-	3	-	-
<b>PC5.</b> conduct checks to ensure proper condition of parking brake, main horn, reverse horn and head	-	3	-	-
<b>PC6.</b> check fan belt tension, electrolyte level and terminal tightness	-	3	-	-
<b>PC7.</b> get visual inspection conducted to check the various controls, gauges, warning lamp and other safety devices	1	3	-	-
<b>PC8.</b> check and adjust driving position, rear and side mirrors, seat belts and set them as per comfort level	1	3	-	-
<b>PC9.</b> clean air filter dust bowls and check the gasket and inner filter	-	3	-	-
<b>PC10.</b> inspect the greasing points to ensure that all greasing pins and pivots points are well greased	1	3	-	-
<b>PC11.</b> examine the compressor unit and all fittings and air lines	-	3	-	-
<b>PC12.</b> keep footplates and steps clean and free from mud, dirt and oil	-	3	-	-
<b>PC13.</b> walk completely around the compactor checking that no one is under or on the machine before operating	1	2	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC14.</b> check that all the manufacturers safety and maintenance and operation decals are available on the machine	-	2	-	-
<i>Documentation and Reporting</i>	<b>2</b>	<b>4</b>	-	-
<b>PC15.</b> maintain a checking/maintenance logbook to record all activities performed	1	2	-	-
<b>PC16.</b> report defects precisely to the supervisor if beyond scope of his role	1	2	-	-
<b>NOS Total</b>	<b>7</b>	<b>43</b>	-	-

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### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	IES/N0116
<b>NOS Name</b>	Carry out pre-operation checks on a compactor
<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>	1.0
<b>Last Reviewed Date</b>	31/03/2015
<b>Next Review Date</b>	31/03/2017
<b>NSQC Clearance Date</b>	

## Qualification Pack

### IES/N0117: Operate a Compactor

#### Description

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Ability for activities that are required for operating a compactor

#### Scope

This unit/task covers the following:

- Compaction Operation

#### Elements and Performance Criteria

##### *Compaction Operations*

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

- PC1.** plan and organize the job according to given instructions
- PC2.** inspect the worksite to identify and loose soil, hidden deep trenches or marshy patches where a compactor could get stuck
- PC3.** carry out all pre- use and running checks
- PC4.** ensure gear is on neutral position
- PC5.** wear seatbelt and adjust seat position
- PC6.** start the engine using the pushbutton switch and key switch
- PC7.** use the priming pump and pre-heater to start the engine in cold weather conditions
- PC8.** operate tandem compactor in successive overlapping passes over surfaces to be compacted
- PC9.** determine the temperature of the asphalt at which compaction is optimum
- PC10.** ensure compaction of hot mix asphalt is appropriate and as per organization standards
- PC11.** ensure appropriate compaction and smoothness of subgrade and asphalt
- PC12.** determine the direction and speed of machine to ensure they are as per the compressibility of material under changing temperatures
- PC13.** ensure that no ridges are formed due to excessive pressure
- PC14.** turn off ignition after finishing operations
- PC15.** check the gear position to ensure that the gear is in neutral position post usage
- PC16.** idle the equipment for a few minutes post the usage
- PC17.** ensure that the machine is shut down and secured when left unattended
- PC18.** use the emergency stop button to disable all power to the compactor in case of a crisis, as per operator manual

#### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** job specific documents e.g. daily maintenance checklist and importance of the same

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- KU2.** common hazards in the work area and workplace procedures to deal with them
- KU3.** safety policy of the company
- KU4.** emergency organization of the specific work site
- KU5.** risk and impact of not following defined procedures/ work instructions
- KU6.** the performance standards & procedures followed in the company
- KU7.** reporting structure in the company
- KU8.** escalation matrix for reporting unresolved problems
- KU9.** timeframe in which the complaint/problem should be resolved
- KU10.** implications of delays in process to the company
- KU11.** cost of equipment and loss for the company that result from damage of equipment and direct/ indirect cost of accidents
- KU12.** work target and review mechanism with supervisor for obtaining/ giving feedback related to performance process
- KU13.** location of tools
- KU14.** contact person in case of queries on procedure or products
- KU15.** location and process for storage and disposal of waste material
- KU16.** different types of compactors and their specific use
- KU17.** working of engine, transmission, their use and function
- KU18.** principles of friction
- KU19.** the vibration system of the compactor
- KU20.** steering mechanisms and correct way of steering on slopes
- KU21.** significance of greasing and oiling, parts of the compactor
- KU22.** instruments panel, their location and operation
- KU23.** controls, levers and switches in order to operate the compactor properly
- KU24.** optimal working condition of compactors
- KU25.** the temperature of asphalt required for optimum compaction
- KU26.** the layers of compaction require for best result
- KU27.** optimal engine oil pressure, radiator coolant temperature
- KU28.** visual checks to identify damage, defects or leaks beforehand
- KU29.** mechanism of tipping load into a waste compactor
- KU30.** general safety rules for operating a compactor
- KU31.** all safety signs and other emergency signals
- KU32.** correct maintenance procedures for compactor
- KU33.** the location and procedure of using the emergency stop button

## Generic Skills (GS)

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

- GS1.** record any deviations/ incidents as per prescribed norms
- GS2.** read and comprehend basic english to read manuals of operations

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- GS3.** interpret stakes and signage on the road and during worksite operations
- GS4.** give clear instructions to co-workers, subordinates and other personnel
- GS5.** use correct technical terms while interacting with supervisor
- GS6.** assess for any damage/faulty component in the compactor and take action accordingly
- GS7.** decide when to perform appropriate driving operations i.e. forward, reverse, 'u' turn, tight spot
- GS8.** work with supervisors/ team mates to carry out work related tasks
- GS9.** plan work according to the required schedule and location
- GS10.** provide service of the highest order to ensure customer satisfaction
- GS11.** identify immediate or temporary solutions to resolve mechanical issues
- GS12.** judge when to seek assistance from supervisor
- GS13.** identify possible ways to improve operational efficiency
- GS14.** suggest methods to avoid accidents/errors while operating machine
- GS15.** analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Compaction Operations</i>	<b>6</b>	<b>44</b>	-	-
<b>PC1.</b> plan and organize the job according to given instructions	-	2	-	-
<b>PC2.</b> inspect the worksite to identify and loose soil, hidden deep trenches or marshy patches where a compactor could get stuck	1	3	-	-
<b>PC3.</b> carry out all pre- use and running checks	-	2	-	-
<b>PC4.</b> ensure gear is on neutral position	-	2	-	-
<b>PC5.</b> wear seatbelt and adjust seat position	-	2	-	-
<b>PC6.</b> start the engine using the pushbutton switch and key switch	-	3	-	-
<b>PC7.</b> use the priming pump and pre-heater to start the engine in cold weather conditions	1	2	-	-
<b>PC8.</b> operate tandem compactor in successive overlapping passes over surfaces to be compacted	-	3	-	-
<b>PC9.</b> determine the temperature of the asphalt at which compaction is optimum	1	3	-	-
<b>PC10.</b> ensure compaction of hot mix asphalt is appropriate and as per organization standards	-	2	-	-
<b>PC11.</b> ensure appropriate compaction and smoothness of subgrade and asphalt	-	3	-	-
<b>PC12.</b> determine the direction and speed of machine to ensure they are as per the compressibility of material under changing temperatures	1	3	-	-
<b>PC13.</b> ensure that no ridges are formed due to excessive pressure	1	2	-	-
<b>PC14.</b> turn off ignition after finishing operations	-	3	-	-
<b>PC15.</b> check the gear position to ensure that the gear is in neutral position post usage	-	3	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC16.</b> idle the equipment for a few minutes post the usage	1	2	-	-
<b>PC17.</b> ensure that the machine is shut down and secured when left unattended	-	2	-	-
<b>PC18.</b> use the emergency stop button to disable all power to the compactor in case of a crisis, as per operator manual	-	2	-	-
<b>NOS Total</b>	<b>6</b>	<b>44</b>	-	-

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### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	IES/N0117
<b>NOS Name</b>	Operate a Compactor
<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>	1.0
<b>Last Reviewed Date</b>	31/03/2015
<b>Next Review Date</b>	31/03/2017
<b>NSQC Clearance Date</b>	

## Qualification Pack

# IES/N0118: Perform routine maintenance and troubleshooting of a compactor

## Description

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Ability for activities that are required for performing routine maintenance and troubleshooting on the compactor.

## Scope

This unit/task covers the following:

- Routine maintenance
- Basic diagnostics 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.** assess the right service schedule by tracking machine operating hours
- PC2.** clean air filter dust bowls at regular intervals
- PC3.** clean footplates, pedals and steps free from mud, dirt, ice and snow at regular intervals
- PC4.** replenish coolants, lubricants and fluids everyday
- PC5.** grease all greasing pins and pivot points everyday
- PC6.** check battery levels and condition of the terminals and carry out minor adjustments if required
- PC7.** check and maintain the tyre rims, air pressure, wheel nuts and treads as per manufacturers indicators

### *Basic diagnostics and troubleshooting*

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

- PC8.** ensure the machine is on firm and level ground before attempting to carry out any maintenance; track machine operating hours to assess the right service schedule
- PC9.** complete timely and legibly daily/ weekly maintenance sheets as provided by the company
- PC10.** ensure that no maintenance task on the engine is performed when running or still hot
- PC11.** assess when the problem is beyond his competence and report the problem to suitably qualified and competent personnel
- PC12.** diagnose the problem
- PC13.** handle and dispose waste based on environmental guidelines at the work place

### *Documentation and Reporting*

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

- PC14.** follow reporting procedures as laid down by the employer
- PC15.** complete all documentation in the prescribed standards in a timely manner

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**PC16.** report and escalate problems/ incidents as required in a timely manner

**PC17.** report defects precisely to the supervisor if beyond scope of his role

### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

**KU1.** job specific documents e.g. daily maintenance checklist and importance of the same

**KU2.** common hazards in the work area and workplace procedures to deal with them

**KU3.** safety policy of the company

**KU4.** emergency organization of the specific work site

**KU5.** risk and impact of not following defined procedures/ work instructions

**KU6.** the performance standards & procedures followed in the company

**KU7.** reporting structure in the company

**KU8.** escalation matrix for reporting unresolved problems

**KU9.** timeframe in which the complaint/problem should be resolved

**KU10.** implications of delays in process to the company

**KU11.** cost of equipment and loss for the company that result from damage of equipment and direct/ indirect cost of accidents

**KU12.** work target and review mechanism with supervisor for obtaining/ giving feedback related to performance process

**KU13.** location of tools

**KU14.** contact person in case of queries on procedure or products

**KU15.** location and process for storage and disposal of waste material

**KU16.** control and switches needed to operate the compactor properly

**KU17.** basic physics and mechanics involved in various functions of the compactor

**KU18.** common defects and general causes of breakdown

**KU19.** response to emergency situations

**KU20.** the optimal levels of control indicators e.g. fuel gauge, engine oil pressure and temperature

**KU21.** possible sources of any unusual sound emanating from the engine

### Generic Skills (GS)

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

**GS1.** record any deviations/ incidents as per prescribed norms

**GS2.** read and comprehend basic english to read manuals of operations

**GS3.** read instructions, guidelines/procedures/rules related to the worksite and equipment operations

**GS4.** give clear instructions to co-workers, subordinates and other personnel

**GS5.** use correct technical terms while interacting with supervisor

**GS6.** decide when to conduct maintenance checks

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- GS7.** evaluate the decision and conduct basic trouble shooting
- GS8.** work with supervisors/ team mates to carry out work related tasks
- GS9.** plan work according to the required schedule and location
- GS10.** plan for regular maintenance on a daily basis before machine operations
- GS11.** provide service of the highest order to ensure customer satisfaction
- GS12.** identify immediate or temporary solutions to resolve mechanical issues
- GS13.** judge when to seek assistance from supervisor
- GS14.** identify possible ways to improve operational efficiency
- GS15.** check for damages and diagnose common problems in the compactor and take relevant action
- GS16.** analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Routine maintenance</i>	<b>3</b>	<b>21</b>	-	-
<b>PC1.</b> assess the right service schedule by tracking machine operating hours	-	3	-	-
<b>PC2.</b> clean air filter dust bowls at regular intervals	-	3	-	-
<b>PC3.</b> clean footplates, pedals and steps free from mud, dirt, ice and snow at regular intervals clean footplates, pedals and steps free from mud, dirt, ice and snow at regular	-	3	-	-
<b>PC4.</b> replenish coolants, lubricants and fluids everyday	1	3	-	-
<b>PC5.</b> grease all greasing pins and pivot points everyday	1	3	-	-
<b>PC6.</b> check battery levels and condition of the terminals and carry out minor adjustments if required	-	3	-	-
<b>PC7.</b> check and maintain the tyre rims, air pressure, wheel nuts and treads as per manufacturers indicators	1	3	-	-
<i>Basic diagnostics and troubleshooting</i>	<b>3</b>	<b>15</b>	-	-
<b>PC8.</b> ensure the machine is on firm and level ground before attempting to carry out any maintenance; track machine operating hours to assess the right service schedule	1	3	-	-
<b>PC9.</b> complete timely and legibly daily/ weekly maintenance sheets as provided by the company	-	3	-	-
<b>PC10.</b> ensure that no maintenance task on the engine is performed when running or still hot	-	2	-	-
<b>PC11.</b> assess when the problem is beyond his competence and report the problem to suitably qualified and competent personnel	1	2	-	-
<b>PC12.</b> diagnose the problem	-	2	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC13.</b> handle and dispose waste based on environmental guidelines at the work place	1	3	-	-
<i>Documentation and Reporting</i>	-	<b>8</b>	-	-
<b>PC14.</b> follow reporting procedures as laid down by the employer	-	2	-	-
<b>PC15.</b> complete all documentation in the prescribed standards in a timely manner	-	2	-	-
<b>PC16.</b> report and escalate problems/ incidents as required in a timely manner	-	2	-	-
<b>PC17.</b> report defects precisely to the supervisor if beyond scope of his role	-	2	-	-
<b>NOS Total</b>	<b>6</b>	<b>44</b>	-	-

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### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	IES/N0118
<b>NOS Name</b>	Perform routine maintenance and troubleshooting of a compactor
<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>	1.0
<b>Last Reviewed Date</b>	31/03/2015
<b>Next Review Date</b>	31/03/2017
<b>NSQC Clearance Date</b>	

## 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

This unit/task 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 such as seat belt, body protection, respiratory protection, eye protection, ear protection and hand protection
- 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 manufacturers 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.** follow safety regulations and procedures with regard to worksite hazards and risks
- PC7.** operate various grades of fire extinguishers, as applicable
- PC8.** support in administering basic first aid and report to concerned team members, as required, in case of an accident
- PC9.** respond promptly and appropriately to an accident/ incident or emergency situation, within limits of your role and responsibility

#### 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
- KU2.** the importance of complying with health, safety, environmental and security guidelines at the worksite and during operations
- KU3.** contact details of personnel responsible for health, safety and environment (hse) related matters
- KU4.** location of worksite storage, site team and safe assembly points
- KU5.** concerned personnel to reach out in case of emergencies and accidents/ incidents
- KU6.** reporting and documentation procedures for hse and security matters
- KU7.** manufacturers guidelines related to health and safety requirements

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- KU8.** common types of health, safety, environment and security risks related to the worksite and operations
- KU9.** types, use and importance of personal protective equipment (ppe) and other safety gear
- KU10.** safe working practices to avoid common hazards and risks
- KU11.** guidelines for transport, storage and disposal of hazardous materials and waste
- KU12.** types of common hazards and risks at the worksite including fire, electrical, gas emergencies, accidents, incidents, structure collapse, machine breakdown
- KU13.** knowledge of safe lockdown/ stop of machinery use in case of emergencies and incidents/ accidents
- KU14.** types of fire extinguishers and their use
- KU15.** common injuries and appropriate basic first aid treatment eg. 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
- GS15.** document and report any health and safety related incidents/ accidents
- GS16.** read and comprehend basic english to read manuals of operations
- GS17.** read all organizational and equipment related health and safety manuals and documents
- GS18.** read instructions, guidelines/procedures/rules related to the worksite and equipment operations
- GS19.** give clear instructions to co-workers, subordinates and other personnel
- GS20.** use correct technical terms while interacting with supervisor
- GS21.** make an appropriate timely decision in responding to emergencies/accidents in line with organizational/ worksite guidelines

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- GS22.** use correct ppe and other safety gear while at the worksite
- GS23.** work with supervisors/ team mates to carry out work related tasks
- GS24.** plan work according to the required schedule and location
- GS25.** build and maintain positive and effective relationships with colleagues and customers
- GS26.** seek appropriate assistance from other sources to resolve problems
- GS27.** assess the intensity of the fire accident and operate fire extinguishers
- GS28.** analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Worksite health and safety</i>	<b>6</b>	<b>24</b>	-	-
<b>PC1.</b> comply with safety, health, security and environment related regulations/ guidelines at the work site	-	2	-	-
<b>PC2.</b> use personal protective equipment (ppe) and other safety gear such as seat belt, body protection, respiratory protection, eye protection, ear protection and hand protection	1	3	-	-
<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	1	3	-	-
<b>PC4.</b> carry out operations as per the manufacturers and worksite related health and safety guidelines	1	2	-	-
<b>PC5.</b> handle the transport, storage and disposal of hazardous materials and waste in compliance with worksite health, safety and environmental guidelines	1	3	-	-
<b>PC6.</b> follow safety regulations and procedures with regard to worksite hazards and risks	1	2	-	-
<b>PC7.</b> operate various grades of fire extinguishers, as applicable	-	3	-	-
<b>PC8.</b> support in administering basic first aid and report to concerned team members, as required, in case of an accident	1	3	-	-
<b>PC9.</b> respond promptly and appropriately to an accident/ incident or emergency situation, within limits of your role and responsibility	-	3	-	-
<b>NOS Total</b>	<b>6</b>	<b>24</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>	1.0
<b>Last Reviewed Date</b>	31/03/2015
<b>Next Review Date</b>	31/03/2017
<b>NSQC Clearance Date</b>	18/06/2015

## Qualification Pack

### Assessment Guidelines and Assessment Weightage

#### Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Element/ Performance Criteria (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 Element/ PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
6. To pass the Qualification Pack assessment, every trainee should score the Recommended Pass % aggregate for the QP.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

**Recommended Pass % : 70**

#### Assessment Weightage

##### Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
IES/N0116.Carry out pre-operation checks on a compactor	7	43	-	-	50	28
IES/N0117.Operate a Compactor	6	44	-	-	50	28
IES/N0118.Perform routine maintenance and troubleshooting of a compactor	6	44	-	-	50	27

### Qualification Pack

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
IES/N7601.Comply with worksite health and safety guidelines	6	24	-	-	30	17
<b>Total</b>	<b>25</b>	<b>155</b>	<b>-</b>	<b>-</b>	<b>180</b>	<b>100</b>

## 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.