



• HOT MIX PLANT

Junior Hot Mix Plant Operator

QP Code: IES/Q0115

NSQF Level: 3

Infrastructure Equipment Skill Council || Infrastructure Equipment Skill Council, Avik Royale-First Floor
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Bengaluru 560026

Qualification Pack

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IES/Q0115: Junior Hot Mix Plant Operator

Brief Job Description

The junior hot mix plant operator is required to assist the operator in operating asphalt plant for the production of hot mix asphalt based on the mix designs used in the construction, roadways and maintenance of roadways.

Personal Attributes

The job requires an individual to be physically agile, strong and should have good eye sight. He should maintain constant alertness to the multiple concurrent activities of the asphalt/plant construction site, including the activities of other employees, contractors, the operation of stationary equipment, etc. He should possess basic math skills and is required to be mentally alert at all times.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [IES/N0143: Assist in carrying out Pre-operation checks on hot mix plant](#)
2. [IES/N0144: Assist in carrying out hot mix plant operations](#)
3. [IES/N0145: Assist in regular maintenance of hot mix plant](#)
4. [IES/N7601: Comply with worksite health and safety guidelines](#)

Qualification Pack (QP) Parameters

Sector	Infrastructure Equipment
Sub-Sector	Equipment Operations
Occupation	Operator
Country	India
NSQF Level	3
Aligned to NCO/ISCO/ISIC Code	NCO-2004/NIL
Minimum Educational Qualification & Experience	8th Class with 2-3 Years of experience assisting in operations of hot mix plant.
Minimum Level of Education for Training in School	

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Pre-Requisite License or Training	Certification Training in Hot Mix Plant Operations preferred
Minimum Job Entry Age	18 Years
Last Reviewed On	26/04/2016
Next Review Date	31/03/2020
NSQC Approval Date	09/10/2017
Version	1.0

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IES/N0143: Assist in carrying out Pre-operation checks on hot mix plant

Description

This unit provides insight into activities that need to be carried out to carry out pre-operational checks on the hot mix plant.

Scope

This unit/task covers the following: Hot Mix Plant Checks Material Checks Reporting and Documentation

Elements and Performance Criteria

Hot Mix Plant Checks

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

- PC1.** assist in conducting visual inspection around the hot mix plant with the senior operator for oil leaks in different parts of the plant
- PC2.** assist in checking electrical connection including the motors used in the plant
- PC3.** check if the roller filters are free of impurities
- PC4.** check whether the bolts and other valves are appropriately fixed
- PC5.** fill diesel in the power generator as per operator's / supervisor's instructions
- PC6.** check all incoming electrical connections and the motors in the plant
- PC7.** check if the fuel and lubricant levels in the burners is as per the requirement
- PC8.** visually check the cabin for any obstructions

Material Checks

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

- PC9.** check the amount and size of course aggregate and gravels are present in the hoppers
- PC10.** check if the quantity of the bitumen in the plant is as per the requirement of the mix design/ instructions from the operator
- PC11.** clear all the hoppers are clear and free from the obstructions if any
- PC12.** check for water levels in the drum and the pollution control bank as per the operator's instructions

Reporting and Documentation

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

- PC13.** assist in maintaining a checking/maintenance logbook to record all activities performed before starting the operation
- PC14.** report defects precisely to the operator/supervisor

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the organizations procedures and guidelines related to breakdown & maintenance services
- KU2.** the performance standards & procedures followed in the company

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- KU3.** reporting structure in the company
- KU4.** timeframe in which the complaint/problem should be resolved
- KU5.** location of tools
- KU6.** contact person in case of queries on procedure or equipments
- KU7.** location and process for storage and disposal of waste material
- KU8.** safety policy of the company
- KU9.** different types of hot mix plants, its uses and functions- drum type and batch type
- KU10.** components of hot mix plant and its functioning- - cold bin feeder - automatic weighing system - screeners - mixing drum - exhaust control system - bitumen unit - pollution control device - conveyor belts- hot mix, aggregate, gravel - hot mix surge silo - filler systems
- KU11.** basics of engine and motor functions
- KU12.** types of aggregates and its physical qualities
- KU13.** different types of motor used in hot mix plant- drum, exhaust, conveyor, gathering conveyor, drum hydraulic, slinger, pollution bank, etc.
- KU14.** significance and methods of lubricating different parts of hot mix plant
- KU15.** basic electrical functioning and repairs

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 and regional language as applicable to read manuals of operations, guidelines, etc.
- GS3.** comprehend basic signs and symbols used on the site
- GS4.** use correct technical terms while interacting with operator/supervisor
- GS5.** decide when to take assistance from the operator/supervisor
- GS6.** work with operators/ supervisors/ team mates to carry out work
- GS7.** provide service of the highest order to ensure customer satisfaction
- GS8.** identify immediate or temporary solutions to resolve mechanical issues
- GS9.** identify cause and effect relations in his area of work
- GS10.** 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>Hot Mix Plant Checks</i>	8	12	-	-
PC1. assist in conducting visual inspection around the hot mix plant with the senior operator for oil leaks in different parts of the plant	1	2	-	-
PC2. assist in checking electrical connection including the motors used in the plant	1	1	-	-
PC3. check if the roller filters are free of impurities	1	1	-	-
PC4. check whether the bolts and other valves are appropriately fixed	1	2	-	-
PC5. fill diesel in the power generator as per operator's / supervisor's instructions	1	2	-	-
PC6. check all incoming electrical connections and the motors in the plant	1	2	-	-
PC7. check if the fuel and lubricant levels in the burners is as per the requirement	1	1	-	-
PC8. visually check the cabin for any obstructions	1	1	-	-
<i>Material Checks</i>	2.5	7	-	-
PC9. check the amount and size of course aggregate and gravels are present in the hoppers	0.5	1	-	-
PC10. check if the quantity of the bitumen in the plant is as per the requirement of the mix design/ instructions from the operator	1	2	-	-
PC11. clear all the hoppers are clear and free from the obstructions if any	0.5	2	-	-
PC12. check for water levels in the drum and the pollution control bank as per the operator's instructions	0.5	2	-	-
<i>Reporting and Documentation</i>	1.5	4	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. assist in maintaining a checking/maintenance logbook to record all activities performed before starting the operation	0.5	2	-	-
PC14. report defects precisely to the operator/supervisor	1	2	-	-
NOS Total	12	23	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	IES/N0143
NOS Name	Assist in carrying out Pre-operation checks on hot mix plant
Sector	Infrastructure Equipment
Sub-Sector	Equipment Operations
Occupation	Operator
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	26/04/2016
Next Review Date	30/04/2018
NSQC Clearance Date	

Qualification Pack

IES/N0144: Assist in carrying out hot mix plant operations

Description

This unit provides insight into activities that are required for starting and running the hot mix plant.

Scope

This unit/task covers the following: Preparatory activities Hot Mix plant Operation Safety during operations Reporting and Documentation

Elements and Performance Criteria

Preparatory activities

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

- PC1.** check if the pipeline of the bitumen is clear the residual from previous operations as per instructions of the operator/ supervisor
- PC2.** check the temperature of the bitumen and keep it ready 12 hours before mixing as per instructions from the operator/supervisor
- PC3.** turn on the exhaust motor to clear the dust from the filler elevators as per operator/supervisor's instructions
- PC4.** assist in test run of the hot mix plant to check the normal functioning of the plant

Hot Mix Plant Operation

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

- PC5.** assist in starting components in correct order manually or through computer controls
- PC6.** assist in checking flow of materials into the mixing drum based on the instructions from the operator/ supervisor
- PC7.** provide indications to the operator to control the speed and flow of different materials
- PC8.** assist the operator in monitoring the temperature of the bitumen regularly
- PC9.** coordinate with the co- workers to ensure regular supply of raw materials in the appropriate hoppers
- PC10.** remove obstructions if any during the operations based on instructions from the operator/supervisor
- PC11.** check water supply in the mixing drum and pollution bank as per the instructions from the operator/ supervisor
- PC12.** check the output is as per the mix design/ customer requirements
- PC13.** check the weigh hopper for appropriate flow of output
- PC16.** check proper flow of hot mix in hot mix surge silo as per the requirement

Safety during operations

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

- PC17.** wear dust masks when working around the plant
- PC18.** make positive eye contact with other equipment operators at the site before crossing in front of or behind the equipment
- PC19.** wear all ppe while sampling asphalt binder and for all operations

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Reporting and Documentation

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

- PC20.** assist the operator in recording input and output flow as per the desired formats of the organization

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the organizations procedures and guidelines related to breakdown & maintenance services
- KU2.** the performance standards & procedures followed in the company
- KU3.** reporting structure in the company
- KU4.** timeframe in which the complaint/problem should be resolved
- KU5.** contact person in case of queries on procedure or equipments
- KU6.** location and process for storage and disposal of waste material
- KU7.** safety policy of the company
- KU8.** different types of hot mix plants, its uses and functions- drum type and batch type
- KU9.** components of hot mix plant and its functioning- cold bin feeder - automatic weighing system - screeners - mixing drum - exhaust control system - bitumen unit - pollution control device - conveyor belts- hot mix, aggregate, gravel - hot mix surge silo - filler systems
- KU10.** basics of engine and motor functions
- KU11.** types of raw materials and its physical qualities- gravel, aggregate, limestone, bitumen, etc
- KU12.** different types of motor used in hot mix plant- drum, exhaust, conveyor, gathering conveyor, drum hydraulic, slinger, pollution bank, etc.
- KU13.** significance and methods of lubricating different parts of hot mix plant
- KU14.** Instrument panel / cabin controls, their location and operation
- KU15.** basic electrical functioning and repairs

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 and regional language as applicable to read manuals of operations, guidelines, etc.
- GS3.** comprehend basic signs and symbols used on the site
- GS4.** use correct technical terms while interacting with operator/supervisor
- GS5.** assess for any damage/faulty component in the hot mix plant and inform the operator/supervisor
- GS6.** work with operator/supervisors/ team mates to carry out work related tasks
- GS7.** provide service of the highest order to ensure customer satisfaction
- GS8.** identify immediate or temporary solutions to resolve mechanical issues
- GS9.** judge when to seek assistance from operator/ supervisor



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- GS10.** identify cause and effect relations in his area of work
- GS11.** 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>Preparatory activities</i>	3	5	-	-
PC1. check if the pipeline of the bitumen is clear the residual from previous operations as per instructions of the operator/ supervisor	1	2	-	-
PC2. check the temperature of the bitumen and keep it ready 12 hours before mixing as per instructions from the operator/supervisor	1	2	-	-
PC3. turn on the exhaust motor to clear the dust from the filler elevators as per operator/supervisor's instructions	0.5	0.5	-	-
PC4. assist in test run of the hot mix plant to check the normal functioning of the plant	0.5	0.5	-	-
<i>Hot Mix Plant Operation</i>	5.5	12	-	-
PC5. assist in starting components in correct order manually or through computer controls	0.5	2	-	-
PC6. assist in checking flow of materials into the mixing drum based on the instructions from the operator/ supervisor	1	2	-	-
PC7. provide indications to the operator to control the speed and flow of different materials	1	2	-	-
PC8. assist the operator in monitoring the temperature of the bitumen regularly	1	1	-	-
PC9. coordinate with the co-workers to ensure regular supply of raw materials in the appropriate hoppers	1	0.5	-	-
PC10. remove obstructions if any during the operations based on instructions from the operator/ supervisor	1	0.5	-	-
PC11. check water supply in the mixing drum and pollution bank as per the instructions from the operator/ supervisor	-	1	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. check the output is as per the mix design/ customer requirements	-	1	-	-
PC13. check the weigh hopper for appropriate flow of output	-	1	-	-
PC16. check proper flow of hot mix in hot mix surge silo as per the requirement	-	1	-	-
<i>Safety during operations</i>	1.5	2.5	-	-
PC17. wear dust masks when working around the plant	0.5	1	-	-
PC18. make positive eye contact with other equipment operators at the site before crossing in front of or behind the equipment	0.5	0.5	-	-
PC19. wear all ppe while sampling asphalt binder and for all operations	0.5	1	-	-
<i>Reporting and Documentation</i>	-	0.5	-	-
PC20. assist the operator in recording input and output flow as per the desired formats of the organization	-	0.5	-	-
NOS Total	10	20	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	IES/N0144
NOS Name	Assist in carrying out hot mix plant operations
Sector	Infrastructure Equipment
Sub-Sector	Equipment Operations
Occupation	Operator
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	26/04/2016
Next Review Date	30/04/2018
NSQC Clearance Date	

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IES/N0145: Assist in regular maintenance of hot mix plant

Description

This unit provides insight into activities that are required for performing routine maintenance and troubleshooting hot mix plant.

Scope

This unit/task covers the following: Routine maintenance Repair and troubleshooting Reporting and documentation

Elements and Performance Criteria

Routine maintenance

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

- PC1.** assist in performing scheduled maintenance, such as replace worn parts such as belts, roller bearings, etc.
- PC2.** assist in basic maintenance, such as change spark plug, grease controls, cleaning of conveyor belts as per instructions from the operator/ supervisor
- PC3.** check bearings at the burner end of the slinger conveyor for excessive heating
- PC4.** replenish coolants, lubricants and fluids regularly as per the instructions from the operator/ supervisor
- PC5.** change filter, clean and change flameeye regularly as per instructions from the operator/supervisor
- PC6.** inspect silos, fuel tanks for leaks or scattering of concrete or limestone regularly
- PC7.** lubricate all pins and pivot points regularly as per instructions from the operator/ supervisor
- PC8.** check battery levels and condition of the terminals and carry out minor adjustments if required

Repair and troubleshooting

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

- PC9.** assist in repair or replacement of defective components, such as motor, burner, temperature control
- PC10.** identify missing or defective components or controls as per the equipment drawings
- PC11.** comply with safety requirements, such as confined space, lock-out procedures

Reporting and documentation

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

- PC12.** assist in maintaining records and documentation relating to service, such as log books, repair lists, etc.
- PC13.** follow reporting procedures as laid down by the employer

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 breakdown & maintenance services
- KU2.** the performance standards & procedures followed in the company
- KU3.** reporting structure in the company
- KU4.** timeframe in which the complaint/problem should be resolved
- KU5.** location of tools
- KU6.** contact person in case of queries on procedure or equipments
- KU7.** location and process for storage and disposal of waste material
- KU8.** safety policy of the company
- KU9.** different types of hot mix plants, its uses and functions- drum type and batch type
- KU10.** basics of engine and motor functions
- KU11.** different types of motor used in hot mix plant- drum, exhaust, conveyor, gathering conveyor, drum hydraulic, slinger, pollution bank, etc.
- KU12.** significance and methods of lubricating different parts of hot mix plant
- KU13.** basic electrical functioning and repairs
- KU14.** basic plant maintenance procedures

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 and regional language as applicable to read manuals of operations, guidelines, etc.
- GS3.** use correct technical terms while interacting with supervisor
- GS4.** assess for any damage/faulty component in the hot mix plant and take actions accordingly
- GS5.** work with operator/ supervisors/ team mates to carry out work related tasks
- GS6.** provide service of the highest order to ensure customer satisfaction
- GS7.** identify immediate or temporary solutions to resolve mechanical issues
- GS8.** judge when to seek assistance from operator/supervisor
- GS9.** identify cause and effect relations in his area of work
- GS10.** 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>Routine maintenance</i>	5	10	-	-
PC1. assist in performing scheduled maintenance, such as replace worn parts such as belts, roller bearings, etc.	1	2	-	-
PC2. assist in basic maintenance, such as change spark plug, grease controls, cleaning of conveyor belts as per instructions from the operator/ supervisor	1	2	-	-
PC3. check bearings at the burner end of the slinger conveyor for excessive heating	0.5	1	-	-
PC4. replenish coolants, lubricants and fluids regularly as per the instructions from the operator/ supervisor	0.5	1	-	-
PC5. change filter, clean and change flameeye regularly as per instructions from the operator/supervisor	0.5	1	-	-
PC6. inspect silos, fuel tanks for leaks or scattering of concrete or limestone regularly	0.5	1	-	-
PC7. lubricate all pins and pivot points regularly as per instructions from the operator/ supervisor	0.5	1	-	-
PC8. check battery levels and condition of the terminals and carry out minor adjustments if required	0.5	1	-	-
<i>Repair and troubleshooting</i>	1	2	-	-
PC9. assist in repair or replacement of defective components, such as motor, burner, temperature control	-	1	-	-
PC10. identify missing or defective components or controls as per the equipment drawings	0.5	0.5	-	-
PC11. comply with safety requirements, such as confined space, lock-out procedures	0.5	0.5	-	-
<i>Reporting and documentation</i>	1	1	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. assist in maintaining records and documentation relating to service, such as log books, repair lists, etc.	1	0.5	-	-
PC13. follow reporting procedures as laid down by the employer	-	0.5	-	-
NOS Total	7	13	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	IES/N0145
NOS Name	Assist in regular maintenance of hot mix plant
Sector	Infrastructure Equipment
Sub-Sector	Equipment Operations
Occupation	Operator
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	26/04/2016
Next Review Date	30/04/2018
NSQC Clearance Date	

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

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Worksite health and safety</i>	6	24	-	-
PC1. comply with safety, health, security and environment related regulations/ guidelines at the work site	-	2	-	-
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	1	3	-	-
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	1	3	-	-
PC4. carry out operations as per the manufacturers and worksite related health and safety guidelines	1	2	-	-
PC5. handle the transport, storage and disposal of hazardous materials and waste in compliance with worksite health, safety and environmental guidelines	1	3	-	-
PC6. follow safety regulations and procedures with regard to worksite hazards and risks	1	2	-	-
PC7. operate various grades of fire extinguishers, as applicable	-	3	-	-
PC8. support in administering basic first aid and report to concerned team members, as required, in case of an accident	1	3	-	-
PC9. respond promptly and appropriately to an accident/ incident or emergency situation, within limits of your role and responsibility	-	3	-	-
NOS Total	6	24	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	IES/N7601
NOS Name	Comply with worksite health and safety guidelines
Sector	Infrastructure Equipment
Sub-Sector	Equipment Operations
Occupation	Operator
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	31/03/2015
Next Review Date	31/03/2017
NSQC Clearance Date	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/N0143.Assist in carrying out Pre-operation checks on hot mix plant	12	23	-	-	35	28
IES/N0144.Assist in carrying out hot mix plant operations	10	20	-	-	30	32
IES/N0145.Assist in regular maintenance of hot mix plant	7	13	-	-	20	16

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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	24
Total	35	80	-	-	115	100

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training

Qualification Pack

Glossary

Sector	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.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	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.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	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.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	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.
Scope	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

Knowledge and Understanding (KU)	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.
Organisational Context	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.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	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.
Electives	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.
Options	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.