



Certificate

CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

INFRASTRUCTURE EQUIPMENT SKILL COUNCIL

for the

MODEL CURRICULUM

Complying to National Occupational Standards of
Job Role/ Qualification Pack: 'Junior Batching Plant Operator' QP No. 'IES/ Q 0117 NSQF Level 3'

Date of Issuance: October 1st, 2016

Valid up to: April 30th, 2018



Authorized Signatory
(Infrastructure Equipment Skill Council)

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Junior Batching Plant Operator

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Junior Batching Plant Operator”, in the “Infrastructure Equipment” Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Junior Batching Plant Operator		
Qualification Pack Name & Reference ID	IES/Q0117		
Version No.	1.0	Version Update Date	
Pre-requisites to Training	Preferably Class 8th Standard Certification Training in Batching Plant Operations preferred Preferably 2 years experience as ‘helper’ in batching plant operations		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> • Assist in carrying out pre-operation checks on a batching plant. General introduction to batching plants, basic working of various components sections, engine, hydraulic and electrical systems, operational controls and instrument panel, preparing machine and related systems for operations • Assist in operating a batching plant. Properties of materials cement and aggregates, starting of transit mixer, loading of materials, monitoring and regulating mixing, discharging of concrete, shutting down the plant; post-operative checks • Assist in carrying out regular maintenance of a batching plant. General maintenance procedures and periodic service schedule; common faults and their diagnosis; reports and documents. • Comply with worksite health and safety guidelines. Health, safety and environment policies; personal protective equipment, fire-fighting equipment, basic first aid for common injuries at work site 		

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> Assist in checking all fluid levels in the engine, hydraulic & water systems; top up where necessary Check all V-drive and other belts for tension, wear and tear. Check conveyors, boom scrapers and bucket elevators for free running. Fill all bins and silos as per instructions. Store the admix as per instructions and check dispensers are functional. Empty the weigh hoppers of previous days operations. Check all hoppers and doors for cleanliness and smooth functioning. Remove cement and concrete build-up in the mixer and clean. Inspect all greasing points and ensure lubrication. Check all electrical wiring for damage and fitting. Check all controls, gauges, lights and horns are functional. Ensure safety equipment in place before operating the plant Assist in maintaining a log book to record all actions done before starting. 	
2	<p>Assist in operating a batching plant.</p> <p>Theory Duration (hh:mm) 11:00</p> <p>Practical Duration (hh:mm) 25:00</p> <p>Corresponding NOS Code IES/N0129</p>	<p>Organisational Context: Acquire working knowledge of the following:</p> <ul style="list-style-type: none"> Procedures and guidelines related to breakdown & maintenance services. Location of tools and equipment and procedure for issue and return. Safety policy of the organisation and emergency drills. <p>Technical Knowledge. Understand the fundamentals of the following:</p> <ul style="list-style-type: none"> Specs and features/performance/output of the batching plant. Type and grade of cement, aggregates and admixture. Feeding system into silos. Starting procedure, basic operations and monitoring systems. Stopping procedure including emergency stop button Identification and correct usage of basic tools. Various hand signals, safety & emergency signs at project site. 	<ul style="list-style-type: none"> Scaled Model of Batching Plant for theory sessions Live Batching Plant at nearby project site for practical sessions Adequate stocks of cement, admixture and other aggregates. Class room with audio-video system Manufacturers O and M Manual & Video Safety video PPE Items & Safety Gear

Trainer Pre-requisites for Job role: “Junior Batching Plant Operator” mapped to Qualification Pack: “IES/Q0117, v1.0”

Sr. No.	Area	Details
1	Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “IES/Q 0117 Version 1.0”.
2	Personal Attributes	Aptitude for conducting training, with strong communication and interpersonal skills. Passion for training and developing others; well-organised; and a team player. Eager to learn and keep oneself updated with the latest in the mentioned field.
3	Minimum Educational Qualifications	Class 8 th ; preferably 10 th
4a	Domain Certification	Certified for Job Role: “ <u>Junior Batching Plant Operator</u> ” mapped to QP: “IES/Q 0117 – Version 1.0”. Minimum accepted score 70%. Desired: Certification Training in Batching Plant Operations & Maintenance
4b	Platform Certification	Certified for Job Role: “ <u>Junior Batching Plant Operator</u> ” mapped to Qualification Pack: SSC/1402. Minimum accepted score 70%.
5	Experience	<ul style="list-style-type: none"> • Around 3 to 4 years’ site experience in Batching Plant Operations. • At least 1 to 2 years’ experience in conducting O and M training programs.

Assessment Criteria	
Job Role	Junior Batching Plant Operator
Qualification Pack	IES/Q 0117 Version 1.0
Sector Skill Council	Infrastructure Equipment

Sr. No.	Guidelines for Assessment
1	Criteria for assessment for Qualification Pack has been laid down based on the NOS's. Each Performance Criteria (PC) has been assigned marks proportional to its importance within NOS and weightages have also been given among the NOSs accordingly.
2	The assessment of the theory/knowledge will be based on written test/viva or both while skill test shall be hands on practical. Behaviour and attitude will be assessed while performing the assigned task.
3	The assessment shall be done as per the guidelines formulated by IESC. The assessment agencies in consultation with IESC will create unique question papers for theory/knowledge and practical skills at each IESC accredited testing centres (as per assessment criteria below)
4	To pass the Qualification Pack, every trainee should score a minimum of 40% in each NOS and 50% aggregate. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification pack.

Assessment Outcomes	Assessment Criteria for the outcome	Total Mark	Marks Allocation		
			Out of	Theory	Skills Practical
1. IES/N0128_Assist in carrying pre-operation checks on a batching plant	PC1. Assist in inspecting oil and filter on air compressor, drain tank manifolds and all water traps as per the procedures set by the manufacturer	35	2	1	1
	PC2. Check the oil level in all gear boxes, hydraulic unit, drum motor oil and auto-roll as per instructions from the operator/supervisor		1	0	1
	PC3. Fill all the bins and silos as per instructions from the operator/supervisor		2	1	1
	PC4. Check for tensions on all V-drive belts and other belts for wear and tear as per the instructions from the operator/ supervisor		1	0	1

	PC5. Store the liquid admixtures as per the organizational standards to avoid contamination		3	1	2
	PC6. Check that admixture dispensers are in good working condition as stated by the operator/ supervisor		2	1	1
	PC7. Ensure that safety equipment is present and securely mounted as per the organizational standards		1	0	1
	PC8. Check for wiring damage and loose electrical fitting for the electric drive motors		2	1	1
	PC9. Turn off mixer motor before carrying out mixer cleaning or chipping		2	1	1
	PC10. Empty the weigh hoppers from the previous day's operation		2	0	2
	PC11. Clean the area under plant for spillage and trace source		1	0	1
	PC12. Check conveyors, boom scrapers and bucket elevators for free running and wear, and adjust as per the instructions from the operator's supervisors		3	1	2
	PC13. Check all hoppers and doors are in clean and efficient working order		1	0	1
	PC14. Check tightness of all hydraulic connections and the condition of flexible tubes		2	1	1
	PC15. Check and remove any cement or concrete build up in the mixer		1	0	1
	PC16. Check dust seals on cement hoppers for wear		3	1	2

	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		2	1	1
	PC4. Carry out operations as per the manufacturer's and worksite related health and safety guidelines		1	0	1
	PC5. Handle the transport, storage and disposal of hazardous materials and waste in compliance with worksite health, safety and environmental guidelines		3	1	2
	PC6. Operate various grades of fire extinguishers, as applicable		1	0	1
	PC7. Support in administering basic first aid and report to concerned team members, as required, in case of an accident		2	1	1
	PC8. Support in administering basic first aid and report to concerned team members, as required, in case of an accident		1	0	1
	PC9. Record and report details related to operations, incidents or accidents, as applicable		2	1	1
		Total	15	5	10