

Model Curriculum

Faecal Sludge Treatment Plant O&M Technician

SECTOR: GREEN JOBS
SUB-SECTOR: WASTE MANAGEMENT
OCCUPATION: OPERATION & MAINTENANCE
REF ID: SGJ/Q6404, V 1.0
NSQF LEVEL: 4



Skill India
शिक्षण कला - कुशल भारत



SCGJ SKILL COUNCIL FOR GREEN JOBS



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**CURRICULUM COMPLIANCE TO
QUALIFICATION PACK – NATIONAL OCCUPATIONAL
STANDARDS**

is hereby issued by the
SKILL COUNCIL FOR GREEN JOBS
for the
MODEL CURRICULUM

Complying to National Occupational Standards of
Job Role/ Qualification Pack: **'Faecal Sludge Treatment Plant O&M Technician'** OP No. **'SGJ/Q6404 NSQF Level 4'**

Date of Issuance: **November 30th, 2018**

Valid up to: **November 29th, 2020**

* Valid up to the next review date of the Qualification Pack



Authorised Signatory
(Skill Council for Green Jobs)

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Faecal Sludge Treatment Plant O&M Technician

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Faecal Sludge Treatment Plant O&M Technician” in the “Green Jobs” Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Faecal Sludge Treatment Plant O&M Technician		
Qualification Pack Name & Reference ID	SGJ/Q6404, V 1.0		
Version No.	1.0	Version Update Date	30.11.2018
Pre-requisites to Training	ITI(Electrical/Mechanical/ Civil/Chemical/Plumbing) or 12th Pass with 3 year of experience in water and sanitation sector		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> • Handle Day to day operation of Faecal Sludge Treatment Plant(FSTP) • Carryout routine maintenance of pumps, engines, motors, filters, bar screens, valves, pipes and any equipment's at the FSTP • Work effectively with co-workers • Maintain personal health and safety while operating FSTP 		

This course encompasses 4 out of 4 Compulsory National Occupational Standards (NOS) of “Faecal Sludge Treatment Plant O&M Technician” Qualification Pack issued by “Skill Council for Green Jobs”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p>Carry out operation of FSTP</p> <p>Theory Duration (hh:mm) 21:00</p> <p>Practical Duration (hh:mm) 49:00</p> <p>Corresponding NOS Code SGJ/N6415</p>	<ul style="list-style-type: none"> • Collect sludge sample from sludge vacuum tank and deliver to laboratory for testing • Carry out visual inspection of equipment and septage receiving station at FSTP • Facilitate calibration of process control and instrumentation system at FSTP • Operate septage receiving station • Screening of sludge for removing grit • Operate solid and liquid separation unit • Operate desludging pump • Operate blowers • Operate generator • Operator compressors • Monitor overall working of FSTP • Prepare daily log sheet and other relevant reports/records • Ensure cleanliness of sludge receiving station and equipment used 	<p>Screening and Grit equipment, rake, spade, air hose, pump, blower, generator, crusher, hose keeping equipment, shovel, plastic sheet, long steel sieve, measuring tape, sludge measuring equipment-glass tube, Hand gloves, helmet/ cap, appropriate mask to cover face, reflective vest (One for each candidate), gum boots etc.</p>
2	<p>Carry out routine maintenance of FSTP</p> <p>Theory Duration (hh:mm) 18:00</p> <p>Practical Duration (hh:mm) 42:00</p> <p>Corresponding NOS Code SGJ/N6416</p>	<ul style="list-style-type: none"> • Inspect equipment at FSTP for any damage i.e hose pipe, bucket, glass tube, plastic sheet, shovel, rake, etc. • Carry out replacement of damaged equipment • Monitor facility and equipment in order to identify and repair leak • Monitor malfunctioning of FSTP by testing inlet and outlet sample of sludge • Perform routine maintenance activities for motor bearing, flanges used at FSTP • Perform greasing of moving parts • Change oil in generator or machinery equipment used • Prepare routine maintenance record of major and minor activities • Perform routine cleaning of work area and FSTP used equipment 	<p>Grease, machine oil, Screening and Grit equipment, rake, spade, air hose, pump, blower, generator, crusher, Hand gloves, helmet/ cap, appropriate mask to cover face, reflective vest (One for each candidate), gum boots etc.</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
3	<p>Maintain personal health & safety in FSSM</p> <p>Theory Duration (hh:mm) 12:00</p> <p>Practical Duration (hh:mm) 28:00</p> <p>Corresponding NOS Code SGJ/N6410</p>	<ul style="list-style-type: none"> Identify contact person when workplace safety policies are violated Identify the location of first aid materials Administer first-aid Identify personal safety hazards or work site hazards Identify the personal protective equipment Demonstrate safety drills i.e emergency drill, fire drill, etc. Demonstrate safe and accepted practices for personal protection Identify and use insect repellents and safe drinking water at work place Identify sign boards/caution such as “Work in progress” or “Danger” to avoid accidents related to use of sharp tools and equipment 	<p>Hand sanitizer/soap, ice box, Hand gloves, helmet/ cap, appropriate mask to cover face, reflective vest (One for each candidate), gum boots etc.</p>
4	<p>Work effectively with others</p> <p>Theory Duration (hh:mm) 09:00</p> <p>Practical Duration (hh:mm) 21:00</p> <p>Corresponding NOS Code SGJ/N0120</p>	<ul style="list-style-type: none"> Identify ways to assist colleagues positively to maximize effectiveness and efficiency in carrying out tasks Discuss importance of work culture Demonstrate appropriate communication etiquette and dressing at work place Express responsible and disciplined behaviours at the workplace Identify ways to put up grievances and problems to appropriate authority Cite collaboration and group participation to achieve common goals 	<p>Short-answer and fill-in-the-blank papers, rubrics and quizzes, internet connecting devices</p>
	<p>Total Duration: 200:00</p> <p>Theory Duration 60:00</p> <p>Practical Duration 140:00</p>	<p>Unique Equipment Required: Screening and Grit equipment, rake, spade, air hose, pump, blower, generator, crusher, hose keeping equipment, shovel, plastic sheet, long steel sieve, measuring tape, sludge measuring equipment-glass tube, Hand gloves, helmet/ cap, ice box, appropriate mask to cover face, reflective vest (One for each candidate), gum boots, Short-answer and fill-in-the-blank papers, rubrics and quizzes, internet connecting devices</p>	

Grand Total Course Duration: 200 Hours, 0 Minutes

(This syllabus/ curriculum has been approved by [Skill Council for Green Jobs](#))

Trainer Prerequisites for Job role: “Faecal Sludge Treatment Plant O&M Technician ” mapped to Qualification Pack: “SGJ/Q6404”

Sr. No.	Area	Details
1	Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “SGJ/Q6404, Version 1.0”.
2	Personal Attributes	Aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	Minimum Educational Qualifications	ITI /Diploma or B.Tech or The education qualification can be relaxed in case of extraordinary relevant field experience
4a	Domain Certification	Certified for Job Role: “Faecal Sludge Treatment Plant O&M Technician” mapped to QP: “SGJ/Q6404, Version 1.0”. Minimum accepted score as per SCGJ guidelines is 70%.
4b	Platform Certification	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “MEP/Q2601” or equivalent. Minimum accepted score as per SSC guidelines is 80%.
5	Experience	<ul style="list-style-type: none"> • Minimum 3 years of relevant industry experience for ITI /Diploma or • Minimum 2 years of relevant industry experience for B.Tech

CRITERIA FOR ASSESSMENT OF TRAINEES

Please refer to the QP-NOS for the Assessment Criteria.