

Model Curriculum

Washing Machine Operator

SECTOR: Apparel, Made-ups and Home Furnishing
SUB-SECTOR: Apparel, Made-ups and Home Furnishing
OCCUPATION: Sampling
REF ID: AMH/Q1810, v1.0
NSQF LEVEL: 4



Certificate

CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

APPAREL MADE-UPS AND HOME FURNISHING SECTOR SKILL COUNCIL

for the

MODEL CURRICULUM

Complying to National Occupational Standards of
Job Role/ Qualification Pack: 'Washing Machine Operator'
QP No. 'AMH/Q1810 NSQF Level 4'

Date of Issuance: **May 02nd, 2019**

Valid up to*: **May 02nd, 2023**

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


Authorised Signatory
(Apparel Made-ups And Home Furnishing Sector Skill Council)

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Washing Machine Operator

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Washing Machine Operator”, in the “Apparel, Made-Ups and Home Furnishing” Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Washing Machine Operator		
Qualification Pack Name & Reference ID	AMH/Q1810, v1.0		
Version No.	1.0	Version Update Date	02/05/2019
Pre-requisites to Training	Preferably Standard X		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> • Plan different activities related to washing. • Prepare for the process of washing as per the job card. • Identify activities related to the operation of washing machine. • Execute the washing process. • Adhere to health, safety and security norms in the washing department. • Perform regular maintenance of work area, tools and machines. • Comply with industry, regulatory and organizational requirements. 		

This course encompasses 5 out of 5 National Occupational Standards (NOS) of “Washing Machine Operator” Qualification Pack issued by “Apparel, Made-Ups and Home Furnishing Sector Skill Council”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p>Introduction and Orientation</p> <p>Theory Duration (hh:mm) 02:00</p> <p>Practical Duration (hh:mm) 00:00</p> <p>Corresponding NOS Code Bridge Module</p>	<ul style="list-style-type: none"> Describe the size and scope of the apparel industry. Explain the roles and responsibilities of a ‘Washing Machine Operator’. Describe various employment opportunities for a ‘Washing Machine Operator’ in the apparel industry. Describe the apparel production process and the role that the ‘Washing Machine Operator’ plays in the process. 	<p>Training kit (Trainer guide, Presentations)</p>
2	<p>Plan and prepare for the process of washing as per job card</p> <p>Theory Duration (hh:mm) 25:00</p> <p>Practical Duration (hh:mm) 60:00</p> <p>Corresponding NOS Code AMH/N1810</p>	<ul style="list-style-type: none"> Describe various types of fiber, yarn and fabric- yarn dyed, piece dyed or printed. Identify customer defined standards and/or standard reference sample. Describe the Standard Operating Procedure (SOP) and regulations in the processing unit. Describe the operation and handling of a washing machine based on capacity, suitability for garment types, washing cycle, etc. Ensure that the machine is empty & clean. Ensure garments are free from undesirable crease/fold/twist. Check garments for any objectionable defects. Mark the articles for washing with identifying code numbers or names using hand or machine markers. Explain the parameters affecting washing like pH, temperature, time, etc. Ensure that the machine is kept clean at all times, before loading, while running and after unloading the fabric. Ensure enough supply of utilities such as water, air and steam for the proper functioning of the machine. Identify various chemicals used in washing. Identify the shelf life of alkalis, surfactants, softeners and other reagents. Ensure that the consumption of washing agents and chemicals, water, etc. is reduced to a minimum. Check that all the controls of the machines are functioning properly. 	<p>Industrial Washing Machine, Drying Machines And Tumbler, Trims & Accessories, Trims & Accessories/ swatch file, Chemicals & Reagents(various types), Stains Swatch file, White /Black Board With Marker & Chalk Duster, Hangers, Laundry Baskets, Hanging Rope, Boilers and Steam Generators, Small Brush, Types Of Labels, Trolley, Types Of fabrics yardage, Stained Garments and , Made Ups And Home Furnishing Articles, First Aid Box, Protective Equipment, Basic stationery, Hand Book On Wash Instruction And Labels, Students Manual, Job Card, Inventory/Stock Register sample, Student's Chairs With Table Arms,</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> Describe how to report to the supervisor or higher authority about any problems faced. 	Trainer's chair And Table, Fire Extinguisher, Big Table, Tubs, Dustbin, trainees stools, Projector /LCD.
3	<p>Preparing for the washing process</p> <p>Theory Duration (hh:mm) 14:00</p> <p>Practical Duration (hh:mm) 50:00</p> <p>Corresponding NOS Code AMH/N1811</p>	<ul style="list-style-type: none"> Identify different types of stains like oil stains, dirt stains, chalk marks, etc. Identify various chemicals for washing of vat, reactive or disperse dyed or printed fabrics. Describe the effect of various chemical types on washability with respect to garments being washed like alkalis, surfactants, softeners, etc. Identify how to use the available cleaning agents and chemicals with maximum efficiency. Explain types of product handling techniques of various garments, made-ups and home furnishing articles. Describe how to develop washing recipe for cleaning and stain removing to ensure minimum chemical consumption. Describe various washing techniques and formulary. Identify various controls of the machine. Explain various types of valves and traps. Describe safe working practices to be adopted in the washing unit. Explain precautions to take while washing dyed and/or printed products. 	Industrial Washing Machine, Drying Machines And Tumbler, Trims & Accessories, Trims & Accessories/swatch file, Chemicals & Reagents(various types), Stains Swatch file, White /Black Board With Marker & Chalk Duster, Hangers, Laundry Baskets, Hanging Rope, Boilers And Steam Generators, Small Brush, Types Of Labels, Trolley, Types Of fabrics yardage, Stained Garments and , Made Ups And Home Furnishing Articles, First Aid Box, Protective Equipment, Basic stationery, Hand Book On Wash Instruction And Labels, Students Manual, Job Card, Inventory/Stock Register sample, Student's Chairs With Table Arms, Trainer's chair And Table, Fire Extinguisher, Big Table, Tubs, Dustbin, trainees stools, Projector /LCD.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
4	<p>Washing the fabrics</p> <p>Theory Duration (hh:mm) 14:00</p> <p>Practical Duration (hh:mm) 68:00</p> <p>Corresponding NOS Code AMH/N1811</p>	<ul style="list-style-type: none"> • Pour the detergent into the machine by following the standard process being laid out by the organisation. • Check different parameters affecting the process like pH, color, temperature, length of the washing cycle etc. for efficient operation. • Run the machine as per the washing cycle referred to in the job card. • Pick out one or two pieces from washed product randomly. • Compare the pieces with the standard reference sample. • Check the product for washing or rubbing fastness due to abrasion. • Remove the objects and place them in the drying machine as per the instructions in the job card. • Check the products for any stains or damage after the process. • Describe how to install spare parts in the machine when it is due for maintenance to avoid breakdown of the machine while working. 	<p>Industrial Washing Machine, Drying Machines And Tumbler, Trims & Accessories, Trims & Accessories/swatch file, Chemicals & Reagents(various types), Stains Swatch file, White /Black Board With Marker & Chalk Duster, Hangers, Laundry Baskets, Hanging Rope, Boilers and Steam Generators, Small Brush, Types of Labels, Trolley, Types Of fabrics yardage, Stained Garments and , Made Ups And Home Furnishing Articles, First Aid Box, Protective Equipment, Basic stationery, Hand Book On Wash Instruction And Labels, Students Manual, Job Card, Inventory/Stock Register/sample, Student's Chairs With Table Arms, Trainer's chair And Table, Fire Extinguisher, Big Table, Tubs, Dustbin, trainees stools, Projector /LCD.</p>
5	<p>Maintain health, safety and security in the washing department</p> <p>Theory Duration (hh:mm) 12:00</p>	<ul style="list-style-type: none"> • Identify various chemical hazards associated with washing processes. • Identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry. • Describe environmental compliance procedures related to effluents. • Explain the elements of a washing cycle 	<p>First Aid Kit, personal protective equipment, various types of fire extinguishers.</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<p>Practical Duration (hh:mm) 10:00</p> <p>Corresponding NOS Code AMH/N1812</p>	<p>and its impact on BOD (biochemical oxygen demand), COD (chemical oxygen demand), pH, color, etc. of the effluents.</p> <ul style="list-style-type: none"> Identify quality systems and other processes practiced in the industry. Ensure that the washing effluents complies with industrial and environmental requirements like BOD, COD, pH, color, etc. before discharge Ensure the effluents are monitored periodically for compliance. Explain safety requirements related to chemicals and reagents used in washing. Describe the personal protective equipment and safety measures as applied to the process of washing. Identify various personal protective equipment like a nose mask, hand gloves, gumboots, etc. Describe the correct usage of personal protective equipment. Ensure safe and secure handling of washing equipment, tools and machinery with the help of gloves, boots, etc. Follow environment management system related to the washing processes. Explain the meaning of signage related to health and safety. Describe the process of identification, handling and storage of hazardous substances. Demonstrate basic first aid. Demonstrate basic CPR. 	
6	<p>Maintain work area, tools and machines</p> <p>Theory Duration (hh:mm) 10:00</p> <p>Practical Duration (hh:mm) 10:00</p> <p>Corresponding NOS Code AMH/N0102</p>	<ul style="list-style-type: none"> Describe safe working practices for the cleaning and maintenance of equipment. Describe the effects of contamination on products i.e. Machine oil, dirt etc. Identify different types of cleaning equipment and substances and their use. Handle materials and tools safely and correctly. Use cleaning equipment and methods appropriate for the work to be carried out. Use correct lifting and handling procedures. Carry out regular running maintenance of tools and equipment within agreed schedules and limits of responsibility. Carry out safe working practices for the cleaning and maintenance of equipment. 	Training kit (trainer guide, presentations).

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> Maintain a comfortable position with correct posture while working. Identify different ways of minimizing wastage. Dispose off waste safely in the designated location. Carry out cleaning according to schedules and limits of responsibility. Store cleaning equipment safely at the designated place after use. 	
7	<p>Comply with industry, regulatory and organizational essentials</p> <p>Theory Duration (hh:mm) 10:00</p> <p>Practical Duration (hh:mm) 10:00</p> <p>Corresponding NOS Code AMH/N0104</p>	<ul style="list-style-type: none"> State the importance of having an ethical and value-based approach to governance. State benefits to self and the organisation due to the practice of values and ethics. State the importance of punctuality and attendance. Interpret correctly legal, regulatory and ethical requirements specific to the apparel industry. Identify procedures to follow if legal, regulatory and ethical requirements of the organisation are not met. Carry out work functions in accordance with legislation and regulations, organizational guidelines and procedures. State customer specific requirements mandated as a part of the work process. State country/customer specific regulations for the apparel sector and their importance. State reporting procedure of the organisation in case of deviations. State limits of personal responsibility. Identify and report any possible deviation to regulatory requirements. Seek and obtain clarifications on policies and procedures, from the supervisor or other authorized personnel. Apply and follow the organisational policies and procedures within limits of self-authority. Provide support to the supervisor and team members in enforcing the organisational considerations. 	Training kit (trainer guide, presentations).
8	<p>Soft Skills</p> <p>Theory Duration (hh:mm) 03:00</p> <p>Practical Duration</p>	<ul style="list-style-type: none"> Explain the importance of effective communication. Communicate effectively with others. Identify and follow personal grooming and hygiene. Follow organization procedures and maintain personal health and hygiene 	White /Black Board with Marker & Chalk, Duster

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	(hh:mm) 02:00 Corresponding NOS Code Bridge Module	<p>and avoid habits like ghutka, tobacco etc.</p> <ul style="list-style-type: none"> • Interact effectively in a group. • Manage time effectively. • Explain the importance of resume and prepare your resume. • Prepare for interviews. 	
	Total Duration 300:00 Theory Duration 90:00 Practical Duration 210:00	Unique Equipment Required: Industrial Washing Machine, Drying Machines and Tumbler, Trims & Accessories, Trims & Accessories/ swatch file, Chemicals & Reagents(various types), Stains Swatch file, White /Black Board With Marker & Chalk, Duster, Hangers, Laundry Baskets, Hanging Rope, Boilers And Steam Generators, Small Brush, Types Of Labels, Trolley, Types Of fabrics yardage, Stained Garments, Made Ups And Home Furnishing Articles , First Aid Box , Protective Equipments, Basic Stationary , Hand Book On Wash Instruction And Labels, Students Manual, Job Card , Inventory/Stock Register sample, Student's Chairs With Table Arms, Trainer's chair And Table, Fire Extinguisher, Big Table, Tubs, Dustbin, trainees stools, Projector /LCD.	

Grand Total Course Duration: **300 Hours, 0 Minutes**

(This syllabus/ curriculum has been approved by [Apparel, Made-Ups and Home Furnishing Sector Skill Council](#))

Trainer Prerequisites for Job role: “Washing Machine Operator” mapped to Qualification Pack: “AMH/Q1810, v1.0”

Sr. No.	Area	Details
1	Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with Qualification Pack “ <u>AMH/Q1810</u> ”
2	Personal Attributes	The candidate should have an aptitude for conducting training, pre /post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as a team; diligent and is passionate for maintaining the quality in content and training delivery methodology. Candidate should have a basic understanding of the English language; however, this should not be a restrictive criterion as long as the candidate is willing and open to learning. He/she must be able to speak, read and write in the local language.
3	Minimum Educational Qualifications	<ul style="list-style-type: none"> • The candidate should be 10th pass with six years supervisory experience in relevant trade Or • Certificate in relevant trade of minimum 6 months duration Or • Diploma of minimum 1-year duration in the relevant trade Or • ITI in relevant trade Or • Graduate in the relevant trade
4a	Domain Certification	Certified for Job Role: “ <u>Washing Machine Operator</u> ” mapped to QP: “ <u>AMH/Q1810, v1.0</u> ”. The minimum accepted score is 80%
4b	Platform Certification	Recommended that the Trainer is certified for the Job Role: “ <u>Trainer</u> ”, mapped to the Qualification Pack: “ <u>MEP/Q2601</u> ”. Minimum accepted score as per MEPSC guidelines is 80%.
5	Experience	<ul style="list-style-type: none"> • The candidate should be 10th pass with six years supervisory experience in relevant trade • Certificate of minimum six months duration in relevant trade with 4 years of work experience in relevant trade • Diploma of minimum 1-year duration in the relevant trade with 2 years of work experience in relevant trade • ITI in relevant trade with minimum 2 years of work experience in relevant trade • Graduation in relevant trade with minimum 2 years of work experience in relevant trade, • He should be able to communicate in English and local language. He should have knowledge of equipment, tools, material, Safety, Health & Hygiene.

Annexure: Assessment Criteria

Criteria For Assessment Of Trainees

Job Role Washing Machine Operator

Qualification Pack AMH/Q1810, version 1.0

Sector Skill Council Apparel, Made-ups and Home Furnishing

Guidelines for Assessment

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each 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 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 this criteria
6. To pass the Qualification Pack, every trainee should score a minimum of 70% aggregate in QP
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

		Total Marks	Out Of	Marks Allocation		
				Theory	Skills Practical	Viva
1.AMH/N1810 Plan and prepare the process of washing as per job card	PC1. Ensure that the machine is empty & clean	70	14	6	7	1
	PC2. Ensure garments are free from undesirable crease/fold/twist		15	6	8	1
	PC3. Check garments for any objectionable defects		12	5	7	0
	PC4. Mark the articles for washing with identifying code numbers or names using hand or machine markers		8	2	5	1
	PC5. Make sure the machine is kept clean at all times, before loading, while running and after unloading the fabric		5	0	4	1
	PC6. Check that all controls of the machines are functioning properly		8	2	5	1

	PC7. Ensure enough supply of utilities such as water, air and steam for proper functioning of the machine		8	2	6	0
		Total	70	23	42	5
2.AMH/N1811 Carrying out the washing process	PC1. Read and comprehend fully the process being followed to do the task of putting the detergent into the machine	95	17	6	10	1
	PC2. Check different parameters of the process like pH, color, temperature, length of washing cycle, etc.		12	3	8	1
	PC3. Run the machine as per the washing cycle referred in the job card		23	10	13	0
	PC4. Pick out one or two pieces from washed product randomly		9	2	7	0
	PC5. Compare the pieces with the standard reference sample		11	2	8	1
	PC6. Check the product for washing or rubbing fastness due to abrasion	Total	9	2	6	1
	PC7. Remove the objects and place them in the drying machine as per the instructions in the job card		7	1	6	0
	PC8. Check the products for any stains or damage after the process		7	2	4	1
			95	28	62	5
3. AMH/N1812 Maintain health, safety and security in the washing department	PC1. Identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry	35	7	3	3	1
	PC2. Ensure washing effluents before discharge complies with industrial and environmental requirements like BOD, COD, pH, color, etc.		8	3	4	1
	PC3. Ensure the effluents are monitored periodically for compliance		7	2	4	1

	PC4. Ensure safe and secure handling of washing equipments, tools and machineries with the help of gloves, boots, etc.		7	3	4	0
	PC5. Follow environment management system related to the washing processes		6	3	3	0
	Total		35	14	18	3
4. AMH/N0102 Maintain work area, tools and machines	PC1. Handle materials, machinery, equipment and tools safely and correctly		3	0	2	1
	PC2. Use correct lifting and handling procedures		3	1	2	0
	PC3. Use materials to minimize waste		3	1	1	1
	PC4. Maintain a clean and hazard free working area		3	0	2	1
	PC5. Maintain tools and Equipment		2	0	2	0
	PC6. Carry out running maintenance within agreed schedules		4	1	2	1
	PC7. Carry out maintenance and/or cleaning within one's responsibility	40	2	0	2	0
	PC8. Report unsafe equipment and other		3	1	1	1
	PC9. Ensure that the correct machine guards are in place		3	0	2	1
	PC10. Work in a comfortable position with the correct posture		2	0	2	0
	PC11. Use cleaning equipment and methods appropriate for the work to be carried out		4	1	2	1
	PC12. Dispose of waste safely in the designated location		2	0	2	0
	PC13. Store cleaning equipment safely after use		2	0	2	0
	PC14. Carry out cleaning according to schedules and limits of responsibility		4	1	2	1

		Total	40	6	26	8
5. AMH/N0104 Comply with industry, regulatory and organizational requirements	PC1. Carry out work functions in accordance with legislation and regulations, organizational guidelines and procedures	30	7	2	4	1
	PC2. Seek and obtain clarifications on policies and procedures, from your supervisor or other authorized personnel		8	3	4	1
	PC3. Apply and follow these policies and procedures within your work practices		4	1	3	0
	PC4. Provide support to your supervisor and team members in enforcing these considerations		5	1	3	1
	PC5. Identify and report any possible deviation to these requirements		6	2	3	1
	Total		30	9	17	4
Grand Total			270	80	165	25