







# Processing Supervisor (Dyeing & Printing)

QP Code: AMH/Q0615

Version: 2.0

NSQF Level: 4

Apparel, Madeups & Home Furnishing Sector Skill Council || Flat No. A-312 to A-323, 3rd Floor, Somdatt Chamber-1, Bhikaji Cama Place, Africa Avenue

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# AMH/Q0615: Processing Supervisor (Dyeing & Printing)

#### **Brief Job Description**

Processing Supervisor (Dyeing & Printing) is responsible for monitoring production, quality and smooth operation of processes beginning with development of recipe to execution of processes with junior management cadres working as a team. Processing supervisors strategize efficient techniques to maximize the productivity and performance of the staff. He also ensures discharge of effluents as per defined statutory norms.

#### **Personal Attributes**

He/she should have good interpersonal skills, vigilant and good eye sight to detect defects or abnormality in the process. He/she should be keen on learning with aptitude in chemistry. He/she should possess good oral communication skills in vernacular and simple English. Supervisor to be able to balance time constraints and a heavy workload while managing other employees and projects

#### **Applicable National Occupational Standards (NOS)**

#### **Compulsory NOS:**

- 1. AMH/N0102: Maintain work area, tools and machines
- 2. <u>AMH/N0104: Comply with industry, regulatory and organizational requirements and Greening of Job roles</u>
- 3. <u>AMH/N0615</u>: Plan and organize materials to be dyed and printed as per customer requirements and dyes and chemicals
- 4. <u>AMH/N0616</u>: Develop recipe for dyeing and printing as per the customer requirement or pantone shade
- 5. <u>AMH/N0617</u>: Supervise the process of dyeing and printing as per plan received from production planning
- 6. <u>AMH/N0618</u>: <u>Maintain health, safety and security in the processing department with Gender & PwD Sensitization</u>

#### **Qualification Pack (QP) Parameters**

Sector	Apparel
Sub-Sector	Apparel, Made-Ups & Home Furnishing







Occupation	Department Supervision
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/3122.2800
Minimum Educational Qualification & Experience	12th Class with 3 Years of experience in relevant field OR Certificate-NSQF (Level 3) with 2 Years of experience as Washing Machine Operator
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	21 Years
Last Reviewed On	27/01/2022
Next Review Date	30/12/2024
Deactivation Date	30/12/2024
NSQC Approval Date	30/12/2021
Version	2.0
Reference code on NQR	2021/APR/AMHSSC/04768
NQR Version	1.0







#### AMH/N0102: Maintain work area, tools and machines

#### **Description**

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Abilities required to organize/ maintain work areas and activities to ensure tools and machines are maintained as per norms. It also covers procedures and compliance standards to identify, prevent, control, minimize and eliminate hazards and potential risks to self and others at the workplace.

#### Scope

The scope covers the following:

• Maintain the work area, handle tools and machines

#### **Elements and Performance Criteria**

#### Maintain the work area, handle tools and machines

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

- **PC1.** Handle materials, machinery, equipment and tools safely and correctly to maintain a clean and hazard free working area
- **PC2.** Use correct lifting and handling procedures
- **PC3.** Use materials efficiently to minimize wastage and dispose off waste safely at the designated location.
- **PC4.** Carry out running maintenance and/or cleaning within one's responsibility and agreed schedules
- **PC5.** Report any unsafe or damaged equipment and other dangerous occurrences to the authorized personnel
- **PC6.** Ensure that the correct machine guards are in place
- **PC7.** Work in a comfortable position and maintain correct posture
- **PC8.** Use cleaning equipment and methods appropriate for the work to be carried out

#### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** Importance of good health, personal hygiene and duty of care
- **KU2.** Importance of safe working practices and code of conduct (COC) and Social Accountability standards followed by the organization/ industry
- **KU3.** The limits of your own responsibility
- **KU4.** The production process and the specific work activities that relate to the whole process
- **KU5.** The line and importance of effective communication with superiors and colleagues
- **KU6.** The organization's rules, codes, quality standards, reporting procedures and guidelines (including timekeeping)
- **KU7.** The importance of complying with written instructions







- **KU8.** The instructions of equipment operating procedures / manufacturer's
- **KU9.** The work instructions and specifications and interpret them accurately
- **KU10.** Method to make use of the information detailed in specifications and instructions
- **KU11.** Relation between work role and the overall manufacturing process
- **KU12.** The importance of taking action when problems are identified
- **KU13.** Different ways of minimizing waste and proper disposal system for waste and by-products
- **KU14.** The importance of running maintenance and regular cleaning
- KU15. Effects of contamination on products i.e., Machine oil, dirt
- **KU16.** Common faults with equipment and the method to rectify
- **KU17.** Maintenance procedures
- **KU18.** Hazards likely to be encountered when conducting routine maintenance
- **KU19.** Different types of cleaning equipment and substances and their use
- **KU20.** Safe working practices for cleaning and the method of carrying them out

#### **Generic Skills (GS)**

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

- **GS1.** Write and document appropriate technical forms, job cards, inspection sheets as per the required format of the company
- **GS2.** Read and comprehend basic English to interpret indicators in the operating manuals, job cards, visual cards
- **GS3.** Read and understand manuals, health and safety instructions, memos, reports, job cards etc.
- **GS4.** Speak and communicate effectively with to peers and supervisors
- **GS5.** Give clear detailed instructions to co-workers, subordinates and others
- **GS6.** Use correct technical terms while interacting with supervisor
- **GS7.** Take appropriate decisions regarding your responsibilities
- **GS8.** Assess for any damaged faulty component in the concerned machinery and take action accordingly
- **GS9.** Evaluate the decision and conduct basic trouble shooting
- **GS10.** Plan and manage work routine based on company procedure
- **GS11.** Work with supervisors/ team mates to carry out work related tasks
- **GS12.** Plan for cleaning and lubricating the concerned machinery, tools, and workplace daily before and after operations
- **GS13.** Ensure and follow organizational procedures pertaining to health and safety are followed
- **GS14.** Solve operational role related issues
- **GS15.** Diagnose common problems in the machine based on visual inspection, sound, temperature etc.
- **GS16.** Analyze, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently







#### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Maintain the work area, handle tools and machines	14	49	-	7
<b>PC1.</b> Handle materials, machinery, equipment and tools safely and correctly to maintain a clean and hazard free working area	3	10	-	1
PC2. Use correct lifting and handling procedures	2	7	-	1
<b>PC3.</b> Use materials efficiently to minimize wastage and dispose off waste safely at the designated location.	2	4	-	1
<b>PC4.</b> Carry out running maintenance and/or cleaning within one's responsibility and agreed schedules	2	10	-	1
<b>PC5.</b> Report any unsafe or damaged equipment and other dangerous occurrences to the authorized personnel	1	2	-	0.5
<b>PC6.</b> Ensure that the correct machine guards are in place	2	2	-	0.5
<b>PC7.</b> Work in a comfortable position and maintain correct posture	1	7	-	1
<b>PC8.</b> Use cleaning equipment and methods appropriate for the work to be carried out	1	7	-	1
NOS Total	14	49	-	7







# **National Occupational Standards (NOS) Parameters**

NOS Code	AMH/N0102
NOS Name	Maintain work area, tools and machines
Sector	Apparel
Sub-Sector	Apparel, Made-Ups & Home Furnishing
Occupation	Sewing, Finishing, Cutting, Production Supervision, Sampling, Quality Control, Quality Assurance, Ironing, Tailoring, Machine Embroidery Operation
NSQF Level	4
Credits	TBD
Version	3.0
Last Reviewed Date	30/12/2021
Next Review Date	30/12/2024
NSQC Clearance Date	30/12/2021







# AMH/N0104: Comply with industry, regulatory and organizational requirements and Greening of Job roles

#### **Description**

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Abilities required for complying with legal, regulatory organizational requirements.

#### Scope

The scope covers the following:

• Observe organizational norms and follow green procedures at workplace.

#### **Elements and Performance Criteria**

#### Comply with industry, and organizational requirements and greening of job roles

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

- **PC1.** Carry out work functions in accordance with organizational standards, greening solutions, procedures, policies, legislation and regulations.
- **PC2.** Apply and follow organizational policies and procedures and inculcate sustainable consumption practices.
- **PC3.** Actively get involved in improving the performance of the organization and support adaptation to environmentally friendly processes.
- **PC4.** Handle materials, equipment, computer and software safely and correctly to maintain a clean and hazard free working area and support adaptation to more environmentally friendly processes
- **PC5.** Carry out running maintenance and/or cleaning within one's responsibility and agreed schedules and deal with work interruptions effectively.
- **PC6.** Report unsafe equipment and other dangerous occurrences to concerned personnel.
- **PC7.** Use cleaning equipment and methods appropriate for the work to be carried out.
- **PC8.** Request for upgrading of system or software when required for effective working and maintain a backup file when working on various design software
- **PC9.** All soft copies of design work to be maintained in files as well for future reference

#### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** Conscious and sustainable decisions/information for achieving an effective and green workplace.
- **KU2.** The importance of safe working practices and code of conduct (COC) and Social Accountability standards followed by the organization/ industry
- **KU3.** The production procedures and the specific work activities relate to the whole process.







- **KU4.** The organization's rules, codes, quality standards, reporting procedures and guidelines (including timekeeping)
- **KU5.** The work instructions and specifications and interpret them accurately
- **KU6.** To make use of the information detailed in specifications and instructions
- **KU7.** The importance of taking action when problems are identified
- **KU8.** The importance of running maintenance and regular cleaning and Maintenance procedures
- **KU9.** Effects of contamination on products i.e., Machine oil, dirt and different ways of minimizing waste.
- **KU10.** The common faults with equipment and the method to rectify.

#### **Generic Skills (GS)**

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

- **GS1.** Make conscious and sustainable decisions that help reduce, reuse, and recycle the company resources.
- **GS2.** Identify and replace processes that create unnecessary waste
- **GS3.** Communicate with others in writing (wherever applicable)
- **GS4.** Use the accurate terminology
- **GS5.** Follow manuals/procedures/and compliance policies
- **GS6.** Update actively with modifications through written print and mail communication (digital)
- **GS7.** Listen effectively and orally communicate information accurately and Make decisions on a suitable course of action or response.
- **GS8.** Communicate proactively on critical issues and Follow rule-based decision-making processes
- **GS9.** Identify situation that need escalation on quality issues and seek intervention
- **GS10.** Plan and organize your work to achieve targets and deadlines and consult/coordinate for effective delivery.
- **GS11.** Apply problem-solving approaches in different situations
- **GS12.** Refer anomalies to the particular personnel
- **GS13.** Analyze needs, requirements and dependencies in order to meet your work requirements
- **GS14.** Seek participation of members from Quality, Production, Audit or any other team for effective solutions
- **GS15.** Provide opinions on work in a detailed and constructive way to the concerned personnel







#### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Comply with industry, and organizational requirements and greening of job roles	20	10	-	10
<b>PC1.</b> Carry out work functions in accordance with organizational standards, greening solutions, procedures, policies, legislation and regulations.	2	1	-	1
<b>PC2.</b> Apply and follow organizational policies and procedures and inculcate sustainable consumption practices.	2	1	-	1
<b>PC3.</b> Actively get involved in improving the performance of the organization and support adaptation to environmentally friendly processes.	2	1	-	1
<b>PC4.</b> Handle materials, equipment, computer and software safely and correctly to maintain a clean and hazard free working area and support adaptation to more environmentally friendly processes	3	2	-	2
<b>PC5.</b> Carry out running maintenance and/or cleaning within one's responsibility and agreed schedules and deal with work interruptions effectively.	3	1	-	1
<b>PC6.</b> Report unsafe equipment and other dangerous occurrences to concerned personnel.	2	1	-	1
<b>PC7.</b> Use cleaning equipment and methods appropriate for the work to be carried out.	2	1	-	1
<b>PC8.</b> Request for upgrading of system or software when required for effective working and maintain a backup file when working on various design software	2	1	-	1
<b>PC9.</b> All soft copies of design work to be maintained in files as well for future reference	2	1	-	1
NOS Total	20	10	-	10







# **National Occupational Standards (NOS) Parameters**

NOS Code	AMH/N0104
NOS Name	Comply with industry, regulatory and organizational requirements and Greening of Job roles
Sector	Apparel
Sub-Sector	Apparel, Made-Ups & Home Furnishing
Occupation	Sewing, Ironing, Export Operations, Designing, Boutique Operations, Quality Control, Sewing, Laying, Inventory Management, Hand Embroidery
NSQF Level	4
Credits	TBD
Version	5.0
Last Reviewed Date	30/12/2021
Next Review Date	30/12/2024
NSQC Clearance Date	30/12/2021







# AMH/N0615: Plan and organize materials to be dyed and printed as per customer requirements and dyes and chemicals

#### **Description**

This unit is about planning and organizing of activities related to dyeing and printing of materials.

#### Scope

The scope covers the following:

• To plan different activities related to dyeing and printing and ensuring the availability of dyes, chemicals and other accessories related to processing

#### **Elements and Performance Criteria**

To plan different activities related to dyeing and printing and ensuring the availability of dyes, chemicals and other accessories related to processing

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

- **PC1.** Understand the task mentioned in the work order
- **PC2.** Ensure that all weighing scales, mixers, mixing tanks, etc. are clean
- **PC3.** Follow the preventive maintenance and cleaning schedule and ensure that controls of the equipment are functioning properly; and take corrective measures if required
- **PC4.** Ensure availability of resources (dyes & chemicals) with distinct lot number, materials for dyeing and printing with location and contact person etc.
- **PC5.** Allocate dyeing machines based on dyeing cycle, machine availability, colour type, urgency and priority of shade required
- **PC6.** Allocate operators based on skill set for dyeing technicalities and printing sophistications

#### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** Organize the plan to ensure the consumption of dyes, chemicals, water, etc. is reduced to minimum
- **KU2.** The production process and the specific work activities that relate to the whole process
- **KU3.** The organizations rules, codes and guidelines (including timekeeping)
- **KU4.** The company's quality standards
- **KU5.** Equipment operating procedures/ managers instructions
- **KU6.** Operating, handling of dyeing machine based on capacity, suitability for product types, dyeing cycle, etc.
- **KU7.** Dyes and chemicals, their shelf-life, etc.
- **KU8.** Pantone shade card and/or standard reference sample
- **KU9.** Parameters affecting dyeing and printing like ph, temperature, time, etc.







- **KU10.** Effect of chemical types on solubility, colour fastness, etc. with respect to materials being dyed
- **KU11.** Effect of chemical types on uniformity of dyeing
- **KU12.** Fibre, yarn and fabric being processed
- **KU13.** The process of scouring, bleaching, dyeing, printing and finishing

#### **Generic Skills (GS)**

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

- **GS1.** Document records related to materials to be dyed and printed
- **GS2.** Write letters, memos, mails clearly and legibly
- **GS3.** Read and comprehend written instructions and customer requirements related to the process and act accordingly
- **GS4.** Communicate effectively with managers, colleagues and juniors appropriately
- **GS5.** Follow organization rule-based decision-making process when finalizing the vendors for material purchase
- **GS6.** Take decision with systematic course of actions and/or response
- **GS7.** Plan and organize the materials in such a way so as to meet the target dates and deadlines; and customer requirements
- **GS8.** Plan and organize the materials to be dyed or printed
- **GS9.** Build customer understanding of trust and cooperativeness
- **GS10.** Seek and comprehend processing related inputs for clarification
- **GS11.** Assess/evaluate processing steps and processes
- **GS12.** Apply domain information about product, processes and technical specifications
- **GS13.** Analyze the customer requirements with the availability in the market, organizations capability to work on such materials, etc.
- **GS14.** Critically evaluate inputs in relation to product intended







#### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
To plan different activities related to dyeing and printing and ensuring the availability of dyes, chemicals and other accessories related to processing	14	49	-	7
<b>PC1.</b> Understand the task mentioned in the work order	2	2	-	1
<b>PC2.</b> Ensure that all weighing scales, mixers, mixing tanks, etc. are clean	2	9	-	1
<b>PC3.</b> Follow the preventive maintenance and cleaning schedule and ensure that controls of the equipment are functioning properly; and take corrective measures if required	5	20	-	2
<b>PC4.</b> Ensure availability of resources (dyes & chemicals) with distinct lot number, materials for dyeing and printing with location and contact person etc.	3	10	-	1
<b>PC5.</b> Allocate dyeing machines based on dyeing cycle, machine availability, colour type, urgency and priority of shade required	1	4	-	1
<b>PC6.</b> Allocate operators based on skill set for dyeing technicalities and printing sophistications	1	4	-	1
NOS Total	14	49	-	7







# **National Occupational Standards (NOS) Parameters**

NOS Code	AMH/N0615
NOS Name	Plan and organize materials to be dyed and printed as per customer requirements and dyes and chemicals
Sector	Apparel
Sub-Sector	Apparel, Made-Ups & Home Furnishing
Occupation	Department Supervision
NSQF Level	4
Credits	TBD
Version	2.0
Last Reviewed Date	27/01/2022
Next Review Date	30/12/2024
NSQC Clearance Date	30/12/2021







# AMH/N0616: Develop recipe for dyeing and printing as per the customer requirement or pantone shade

#### **Description**

This unit provides performance criteria, knowledge & understanding, skills & abilities required to develop recipe for dyeing and printing for processing of textile products.

#### Scope

The scope covers the following:

 Recipe for dyeing and printing of textile products of cellulosic, synthetic and of protein origins, blends, etc., hydro-extraction of wet products after dyeing and dyeing of buttons and accessories under exceptional circumstances

#### **Elements and Performance Criteria**

#### Recipe for dyeing and printing of textile products

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

- **PC1..** Understand the process parameters for dyeing and printing with all technicalities and technologies
- **PC2.** Use PPE before and while working in colour store and ensure all safety measures are in consideration
- **PC3.** Weigh all dyestuff separately (bigger quantity first and smaller quantity last, below 20 gms. Should be weighed on precision balance)
- **PC4.** Develop dyeing recipe with details like fabric type, dyeing cycle, MLR, ph and other parameters
- PC5. Check the shades developed against standard sample and/or pantone shade card
- **PC6.** Check that all controls are functioning properly; and take corrective measures in case of deviation

#### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** Developing recipe with minimum of recipe data bank and highest of flexibility
- **KU2.** The importance of complying with written instructions
- **KU3.** Weighing the dyestuff in descending order of their weight
- **KU4.** Dyes and chemicals like reactive dyes, natural dyes, disperse dyes, etc.
- **KU5.** Materials to be dyed like cotton, wool, synthetic, etc.
- **KU6.** Sample printing machine, dyeing machine like beaker dyeing, garment dyeing, etc.
- **KU7.** Mechanism of dye fixation
- **KU8.** Fastness of dyes like water fastness, colour fastness, etc.







### **Generic Skills (GS)**

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

- **GS1.** Document records related to recipe, chemicals and formulations
- **GS2.** Write letters, memos, mails clearly and legibly
- **GS3.** Read and comprehend written instructions related to the process of dyeing and printing
- **GS4.** Read and comprehend customer requirements in order to develop the recipe accordingly
- GS5. Communicate effectively with managers, colleagues and juniors appropriately when unclear
- **GS6.** Follow organization rule-based decision-making process when deciding the chemicals to be used in making the recipe
- **GS7.** Take decision with systematic course of actions and/or response
- GS8. Planning and organization of work to meet deadlines
- **GS9.** Build customer understanding of trust and cooperativeness
- **GS10.** Seek and comprehend recipe developing related inputs for clarification
- **GS11.** Assess/evaluate recipe development steps and processes
- **GS12.** Apply domain information about recipe development, its processes and technical specifications
- **GS13.** Critically evaluate inputs in relation to product intended
- **GS14.** Critically study the recipe being made with the customer requirements







#### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Recipe for dyeing and printing of textile products	16	56	-	8
<b>PC1</b> Understand the process parameters for dyeing and printing with all technicalities and technologies	2	2	-	1
<b>PC2.</b> Use PPE before and while working in colour store and ensure all safety measures are in consideration	1	4	-	1
<b>PC3.</b> Weigh all dyestuff separately (bigger quantity first and smaller quantity last, below 20 gms. Should be weighed on precision balance)	3	8	-	1
<b>PC4.</b> . Develop dyeing recipe with details like fabric type, dyeing cycle, MLR, ph and other parameters	4	20	-	1
<b>PC5.</b> . Check the shades developed against standard sample and/or pantone shade card	3	10	-	2
<b>PC6.</b> . Check that all controls are functioning properly; and take corrective measures in case of deviation	3	12	-	2
NOS Total	16	56	-	8







# **National Occupational Standards (NOS) Parameters**

NOS Code	AMH/N0616
NOS Name	Develop recipe for dyeing and printing as per the customer requirement or pantone shade
Sector	Apparel
Sub-Sector	Apparel, Made-Ups & Home Furnishing
Occupation	Department Supervision
NSQF Level	4
Credits	TBD
Version	2.0
Last Reviewed Date	27/01/2022
Next Review Date	30/12/2024
NSQC Clearance Date	30/12/2021







# AMH/N0617: Supervise the process of dyeing and printing as per plan received from production planning

#### **Description**

This unit provides performance criteria, knowledge & understanding, skills & abilities required to supervise the processes of dyeing and printing.

#### Scope

The scope covers the following:

• Supervision of different processes of dyeing cycle, printing process, washing cycle, hydro-extractor, etc

#### **Elements and Performance Criteria**

Supervision of different processes of dyeing cycle, printing process, washing cycle, hydro-extractor, etc To be competent, the user/individual on the job must be able to:

- **PC1.** Ensure dyeing and printing process is executed as per defined dyeing cycle and printing process
- **PC2.** Ensure materials after dyeing are washed and hydro-extracted as per defined washing cycle
- **PC3.** Ensure materials after dyeing are dried as per defined process parameters
- **PC4.** Take corrective action in case of any deviation in the dyeing/printing process
- PC5. Ensure that all chemicals/ dyeing/printing solutions are disposed off in the prescribed manner

#### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** Dyeing and printing plan is prioritized in a sequence to minimize consumption of resources (dyes, chemicals, water, etc.)
- **KU2.** Correction of dyeing like patchy dyeing, shade variation, etc.
- **KU3.** Effect of dyeing on material attributes like material harshness, shrinkage, etc.

#### **Generic Skills (GS)**

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

- **GS1.** Write letters, memos, applications areas of non-compliance
- **GS2.** Write in clearly and legibly the work distributed among workers and their performance.
- **GS3.** Comprehend written instructions regarding compliance applicable at workplace, handling of chemicals, effluent discharge etc.
- **GS4.** Read any application sent by other colleagues and team members
- **GS5.** Communicate effectively with managers, colleagues and juniors appropriately







- **GS6.** Talk to workers to convey information effectively
- **GS7.** Supervise and provide clarifications to unclear workers
- GS8. Make appropriate decisions apropos the supervision in the dyeing and printing workplace
- **GS9.** Plan and organize work depending on the workers capability
- **GS10.** Plan processes and encourage exchange of ideas/inputs
- **GS11.** Build customer relationships and use customer centric approach
- **GS12.** Clarification on the dyeing and printing to be done with the team members
- GS13. Analyse the supervision strategies adopted for the betterment of the workflow
- **GS14.** Critically evaluate the supervisory processes required for dyeing and printing







#### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Supervision of different processes of dyeing cycle, printing process, washing cycle, hydro-extractor, etc	15	60	-	10
<b>PC1.</b> Ensure dyeing and printing process is executed as per defined dyeing cycle and printing process	3	15	-	2
<b>PC2.</b> Ensure materials after dyeing are washed and hydro-extracted as per defined washing cycle	4	15	-	2
<b>PC3.</b> Ensure materials after dyeing are dried as per defined process parameters	4	15	-	2
<b>PC4.</b> Take corrective action in case of any deviation in the dyeing/printing process	2	7	-	2
<b>PC5.</b> Ensure that all chemicals/ dyeing/printing solutions are disposed off in the prescribed manner	2	8	-	2
NOS Total	15	60	-	10







# **National Occupational Standards (NOS) Parameters**

NOS Code	AMH/N0617
NOS Name	Supervise the process of dyeing and printing as per plan received from production planning
Sector	Apparel
Sub-Sector	Apparel, Made-Ups & Home Furnishing
Occupation	Department Supervision
NSQF Level	4
Credits	TBD
Version	2.0
Last Reviewed Date	27/01/2022
Next Review Date	30/12/2024
NSQC Clearance Date	30/12/2021







# AMH/N0618: Maintain health, safety and security in the processing department with Gender & PwD Sensitization

#### **Description**

This unit provides Performance Criteria, Knowledge & Understanding, Skills & Abilities required to organize/maintain work areas as safe and secure

#### Scope

The scope covers the following:

Maintain the work area as compliant to health, safety, security needs with gender & PwD sensitization

#### **Elements and Performance Criteria**

Maintain the work area as compliant to health, safety, security needs and gender & PwD requirements

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

- **PC1.** Ensure that procedures related to environment management system health safety, gender and PwD (People with disability) are being followed
- **PC2.** Ensure dyeing effluents are monitored periodically for compliance before discharge complies with industrial and environmental requirements like BOD,COD, PH, colour, etc.
- **PC3.** Ensure safe and secure handling of dyeing equipment, tools and machineries
- PC4. Monitor the workplace and work processes for potential risks and threats
- **PC5.** Ensure workers participation in mock-drills/evacuation procedures group discussions, training sensitization programs for gender and PwD awareness organized at the workplace
- **PC6.** Ensure workers undertake first-aid, fire-fighting, and emergency response training

#### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** Treatment processes which influence BOD, COD, PH, colour etc. Of the effluents
- **KU2.** Compliance requirements related to dyes and chemicals
- **KU3.** Health and safety requirements related to handling of dyes and chemicals
- **KU4.** Environmental compliance related to effluents
- **KU5.** Operating processes of ETP.
- **KU6.** Various personal protective equipment like nose mask, hand gloves, gum boots, etc.
- **KU7.** Correct usage of personal protective equipment
- **KU8.** The importance of gender equality being followed in the organization and policies for reporting any harassment or inappropriate behaviour
- **KU9.** How to accommodate employees with disabilities etiquette to adhere to and proper language and terminology







- KU10. How to communicate, offer help, respecting space, parking etc. For people with
- KU11. Promoting a safe, accessible and healthy workplace for disabled employees

#### **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 written instructions describing safety measures to be adopted while working with the dyeing and printing equipment.
- **GS3.** Read and comprehend the safety signage for personal and workplace safety and security
- **GS4.** Discuss details about safety from equipment to team assigned with the work
- **GS5.** Give clear instructions to co-workers about their health, safety and security pre, post and during dyeing and printing processes
- **GS6.** Make appropriate decisions apropos the concerned area of work
- **GS7.** Decisions related to dyeing and printing operations should directly and closely involve safety requirements and protocols
- **GS8.** Plan processes and encourage exchange of ideas/inputs related to health, safety and security
- **GS9.** Keep work area free from potential work hazards by training workers on norms and practices related to health and safety.
- **GS10.** Keep internal customers (worker/supervisor/manager) health and safety related concerns and processes paramount to ensure alignment with external customers health and safety related expectations (local/global)
- **GS11.** Clarification on the safety tools/processes to be used
- **GS12.** Demonstrate the procedure of safely handling the equipment
- **GS13.** Identify, record, report and rectify (if able to) the malfunctions of the tools and machines
- **GS14.** Analyse, evaluate and apply the information gathered from observation, experience, reasoning or communication to act efficiently
- **GS15.** Create a positive and inclusive workplace atmosphere without any kind of bias/discrimination towards any employee
- **GS16.** Actively take part in any discussion/workshop organized for gender sensitization training
- **GS17.** Read and comprehend written instructions related to gender equality issues in the organization
- **GS18.** Identify and report any harassment or inappropriate behaviour towards any employee
- **GS19.** Create a positive and inclusive workplace atmosphere without any kind of bias/discrimination towards any employee with disability or special needs
- **GS20.** Actively take part in any discussion/workshop organized for disability sensitization training.
- **GS21.** Read and comprehend written instructions related to equality issues in the organization related to disabled persons
- **GS22.** Identify and report any distinction, exclusion, harassment or inappropriate behaviour towards any employee







#### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Maintain the work area as compliant to health, safety, security needs and gender & PwD requirements	11	39	-	5
<b>PC1.</b> Ensure that procedures related to environment management system health safety, gender and PwD (People with disability) are being followed	2	9	-	1
<b>PC2.</b> Ensure dyeing effluents are monitored periodically for compliance before discharge complies with industrial and environmental requirements like BOD,COD, PH, colour, etc.	3	10	-	1
<b>PC3.</b> Ensure safe and secure handling of dyeing equipment, tools and machineries	3	12	-	1
<b>PC4.</b> Monitor the workplace and work processes for potential risks and threats	1	2	-	0.5
<b>PC5.</b> Ensure workers participation in mockdrills/evacuation procedures group discussions, training sensitization programs for gender and PwD awareness organized at the workplace	1	5	-	1
<b>PC6.</b> Ensure workers undertake first-aid, fire-fighting, and emergency response training	1	1	-	0.5
NOS Total	11	39	-	5







# **National Occupational Standards (NOS) Parameters**

NOS Code	AMH/N0618
NOS Name	Maintain health, safety and security in the processing department with Gender & PwD Sensitization
Sector	Apparel
Sub-Sector	Apparel, Made-Ups & Home Furnishing
Occupation	Department Supervision
NSQF Level	4
Credits	TBD
Version	2.0
Last Reviewed Date	27/01/2022
Next Review Date	30/12/2024
NSQC Clearance Date	30/12/2021

### Assessment Guidelines and Assessment Weightage

#### **Assessment Guidelines**

- 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. examination/training center (as per assessment criteria below)
- 4. Individual assessment agencies will create unique question papers for theory part for each candidate at each.
- 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.







Minimum Aggregate Passing % at QP Level: 70

(**Please note**: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

## **Assessment Weightage**

#### Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
AMH/N0102.Maintain work area, tools and machines	14	49	-	7	70	18
AMH/N0104.Comply with industry, regulatory and organizational requirements and Greening of Job roles	20	10	0	10	40	10
AMH/N0615.Plan and organize materials to be dyed and printed as per customer requirements and dyes and chemicals	14	49	-	7	70	18
AMH/N0616.Develop recipe for dyeing and printing as per the customer requirement or pantone shade	16	56	-	8	80	20
AMH/N0617.Supervise the process of dyeing and printing as per plan received from production planning	15	60	-	10	85	21
AMH/N0618.Maintain health, safety and security in the processing department Gender & PwD requirements	11	39	-	5	55	13
Total	90	263	0	47	400	100







### **Acronyms**

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







# **Glossary**

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







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.
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.
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