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OCCUPATIONAL STRUCTURE

TEXTILE & APPAREL SECTOR

OCCUPATIONAL STRUCTURE

Textile And Apparel Sector

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Occupational Structure Textile And Apparel Sector
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1. EXECUTIVE SUMMARY

Recognising the importance of skilled human resource, the Department of Skills Development, Ministry of Human Resource, Malaysia has requested an Occupational Analysis to be carried out on the Textile and Apparel sector to evaluate the requirement of skilled manpower in this sector.

For this Occupational Analysisor this Occupational Analysis, Textile and Apparel sector can be defined as the whole textile and apparel manufacturing industry. This analysis is including the production of Textile Handicraft product, which are songket, dastar, pua, tapestry, and batik.

In conducting the Occupational Analysis on the Textile and Apparel sector, information on the Textile and Apparel industry was gathered through literature search, interviews and discussions with the industry experts and players from the industry. Visits to establishments and related public departments were also carried out. A workshop was held in an attempt to get better understanding on the sub-sector structure, job titles and hierarchy, and the activities of the said sub-sector.

The occupational analysis conducted on the Textile and Apparel sector has led the team to identify 21 job areas under 9 sub-sectors. These job areas cover 132 job titles identified in this sector. The hierarchy of each job title is identified and their definition is well defined by the panels.

2. CONCEPT AND STRUCTURE OF THE MALAYSIAN OCCUPATIONAL SKILLS QUALIFICATION FRAMEWORK (MOSQF)

2.1 Objectives of the Malaysian Occupational Skills Qualification Framework (MOSQF)

i) Skills Qualification Framework of Occupations (MOSQF) is a framework that unites the skills and qualifications linked to the country and overseas.

ii) MOSQF develops instruments and classifies qualifications based on a set of criteria agreed at the national level and is benchmarked with international practice to explain the level of learning, standards-based learning outcomes. These criteria are accepted and adopted for all skills training institutions recognised by the Department of Skill Development (DSD).

iii) MOSQF also provides access to education for individuals who want to improve themselves through Recognition of Prior Achievement (RPA) obtained from formal education, non formal and informal, regardless of the time and place in the context of Life Long Learning (LLL) concept.

2.2 Benefits MOSQF

Some of the qualifications set out in accordance with the standard and the principles and criteria that are formulated in accordance with international and industry best practices. Thus, a reference intended MOSQF:

i) To increase public confidence about the quality of skills and qualifications in Malaysia by providing clear information on each qualification to various parties such as individuals, parents, training institutions, employers, industry, inside and outside the country.

ii) Unite the public and private skills training under a system of quality control. Strengthen the training system by providing clear guidelines for the design and naming program eligibility based on the standard.

MOSQF a close relationship and in line with the requirements of the job market facilitate the development of relevant skills training.

iii) Provide a clear career path, which allows individuals to increase the level of qualifications of higher skills.

iv) To facilitate the process of recognition and negotiation with two and multilateral recognition of skills both in and outside the country.

v) LLL through the policy of providing RPA through education, training in the workplace, self-learning or life experiences.

2.3 Formation and Development of MOSQF

MOSQF is developed by benchmark key national qualifications framework of the Malaysian Qualifications Framework (MQF) which used the same external reference of England, Wales and Northern Ireland, Australia, New Zealand and Europe. Thus, MOSQF facilitates communication with various frames and education and training systems in major countries of the world. It can also address the education and training systems making them to be more complex to ensure cooperation in education and training across the border.

MOSQF is a dynamic structures that grow in accordance with priorities and rapid changes in the economy. Framework is developed to foster confidence and trust among all stakeholders who use it as individuals, training providers, government, associations, professional bodies, industry and community. MOSQF provides national training system and improves access increased training for all stakeholders.

2.4 General Principles of MOSQF

1. Skill requirements definition

   Skills qualification is a certificate, diploma or advanced diploma awarded by the DSD to confirm the individual was competent in a field of standard-based employment. Given the award after meeting the certification requirements, whether through training or other methods prescribed by the DSD.

2. Levels of qualification

Qualification in MOSQF is divided into eight levels of skills, Malaysian Skills Certificate at Level 1-3, Malaysian Skills Diploma at Level 4, Malaysian Skills Advanced Diploma at Level 5, Malaysian Skills Higher Advanced Diploma at Level 6, Malaysian Skills Meister at Level 7 and Malaysian Skills Higher Meister at Level 8. Qualification levels are shown in *Figure 1: MOSQF – Four (4) Higher Education Sectors and Eight (8) Qualifications Levels*. The level indicates the capability and qualifications are described in *Figure 2: Malaysia Occupational Skills Qualification Framework (MOSQF) Levels Description*. Capabilities include:

i) depth and complexity of competence and understanding;
ii) application of knowledge and skills;
iii) degree of autonomy and creativity in decision making;
iv) communication skills and;
v) breadth and sophistication of the practice.

3. Learning outcomes

Learning outcomes are statements that describe things/competencies that individuals need to know, understand and can do after completing a training period at a certain level. Learning outcomes covering all the competencies specified in the standard according to skill level. MOSQF emphasises three domains of learning are significant, namely:

i) knowledge and technology;
ii) skills and capacity building work; and
iii) core capabilities.

Core competence is divided into four sub-domains of:

i) skills and social responsibility;
ii) autonomy and responsibility;
iii) learning competencies; and
iv) professional and vocational skills.

The advantage of learning is its emphasis on 'individual learning and achievement, not merely how to achieve it. Thus, the method of achieving learning outcomes is not limited to formal education and training and is opened only to past achievements gained through formal education, non formal and informal.

4. Learning period

Eligibility MOSQF priority learning outcomes covering the individual must show competency after successfully completed the program. Complexity and scope of competence increased with increasing levels of qualifications. Minimum training period for each level is set and must be filled in accordance with the standard.

5. Education path for individual development

MOSQF emphasises meeting and overlapping competencies between the different skills qualifications in terms of scope and level. This is done by means of mutual recognition to meet the requirements of the award certificate or admission to a higher level.

When successfully completed a level, the individual is entitled to apply for and be considered for admission to a higher level. However, the right of admission is not automatic because the individual might need to meet additional eligibility requirements are higher as determined by the Standard or associated organisations.

In linking the qualifications, MOSQF facilitates the process and support the individual to show all possible and probable route of learning for the advancement of the individual. MOSQF generates an alternative path that recognises the achievements of the increase individual.

Realise the educational path MOSQF Livelong Learning because it allows individuals who have knowledge and skills acquired from their own experience and learning to be evaluated and given the opportunity to obtain a higher qualification without basic qualifications.

6. Implementation of MOSQF

Implementation of MOSQF is to strengthen the quality of skills training opportunities in line with the country's industry and globalisation. Held in implementing the principles MOSQF is all qualifications contained in MOSQF skills must meet the standards and quality assurance as determined by the DSD.

Quality assurance processes can be classified as follows:

i) Approval of training providers and accreditation program

Training providers must be accredited by the DSD Director before implementing any training. Accreditation involves self-assessment skills training providers that followed the visit to affirm the assessment of whether the program or the eligibility of training providers have achieved the criteria specified. Assessment visit report will be considered by a committee appointed by the Director General.

ii) Monitoring and improvement

Once the program is approved, continuous monitoring for improvements will be implemented by the DSD. The process involves monitoring quality assurance activities undertaken by the training providers, visit the External Verification Officers for verification and audit visits by officers of DSD.

iii) Enforcement

If there are things that violate the laws, policies and regulations during the process of monitoring and improvement, it will be reported to the monitoring and enforcement under the responsibility of the Director General of DSD.

iv) Government Recognition

The process of granting the status of eligibility by the Public Services Department (PSD) for the register of approved qualifications for service in government.

v) Licensing and registration expert

The process that allows qualified individuals are recognised for carrying out activities related to training and skills assessment for certification in MOSQF.

vi) Development standards

Standard development is processed by working practitioners and approved by a committee composed of the most competent in the areas evaluated.

Malaysian Occupational Skills Qualification Framework In Malaysian Qualification Framework (MQF)

<table>
<tr><th rowspan="2">Qualification Levels</th><th colspan="3">Sector</th><th rowspan="2">Life Long Learning</th></tr>
<tr><th>Skills</th><th>Vocational and Training</th><th>Higher Education</th></tr>
<tr><td>8</td><td>Malaysian Skills Higher Meister</td><td rowspan="3"></td><td>Doctoral Degree</td><td rowspan="10">Accreditation for Prior Experiential Learning (APEL)</td></tr>
<tr><td rowspan="2">7</td><td rowspan="2">Malaysian Skills Meister</td><td>Master's Degree</td></tr>
<tr><td>Postgraduate Certificate & Diploma</td></tr>
<tr><td rowspan="2">6</td><td rowspan="2">Malaysian Skills Higher Advanced Diploma</td><td rowspan="2"></td><td>Bachelor's Degree</td></tr>
<tr><td>Graduate Certificate & Diploma</td></tr>
<tr><td>5</td><td>Malaysian Skills Advanced Diploma</td><td>Advanced Diploma</td><td>Advanced Diploma</td></tr>
<tr><td>4</td><td>Malaysian Skills Diploma</td><td>Diploma</td><td>Diploma</td></tr>
<tr><td>3</td><td>Malaysian Skills Certificate 3</td><td rowspan="3">Vocational & Technical Certificate</td><td>Certificate</td></tr>
<tr><td>2</td><td>Malaysian Skills Certificate 2</td><td rowspan="2"></td></tr>
<tr><td>1</td><td>Malaysian Skills Certificate 1</td></tr>
</table>

Figure 1: MOSQF – Four (4) Higher Education Sectors and Eight (8) Qualifications Levels

Source: MOSQ Division, Department of Skills Development

Date Reviewed: June 2008

MALAYSIA OCCUPATIONAL SKILLS QUALIFICATION FRAMEWORK (MOSQF)

Level	Level Description
1	Achievement at this level reflects the ability to use relevant knowledge, skills and procedures to **complete routine and predictable tasks** that include responsibility for completing tasks and procedures subject to **direction or guidance**
2	Achievement at this level reflects the ability to select and use relevant knowledge, **ideas**, skills and procedures to **complete well-defined tasks and address straightforward problem**. It includes **taking responsibility** for completing tasks and procedures, **and exercising autonomy** and **judgment** subject to overall direction or guidance
3	Achievement at this level reflects the ability to **identify and use relevant understanding,** methods and skills to **complete task** and address problems that are well defined with a **measure of complexity.** It includes taking responsibility for initiating and completing tasks and procedures as well as exercising autonomy and judgments **within limited parameter.** It also reflects awareness of different perspectives or approaches within an area of study or work
4	Achievement at this level reflects the ability to identify and use relevant understanding, methods and skills to address problems that are well defined but **complex and non-routine**. It includes taking responsibility for overall courses of action as well as exercising autonomy and **judgment within fairly broad** parameters. It also reflects **under-standing of different** perspective or approaches within an area of study or work
5	Achievement at this level reflects the ability to identify and use relevant understanding, methods and skills to address **broadly-defined, complex problem**s. It includes taking responsibility for **planning and developing courses** of action as well as exercising autonomy and judgment within broad parameters. It also reflects **understanding of different perspectives, approaches or schools of thought and the reasoning behind them**
6	Achievement at this level reflects the ability to **refine** and use relevant understanding, methods and skills to address **complex problems that have limited definition**. It includes taking responsibility for planning and developing courses of action **that are able to underpin substantial change or development, as well as exercising broad autonomy and judgment.** It also reflects an understanding of different perspectives, **approaches of schools of thought and the theories that underpin them**
7	Achievement at this level reflects the ability to **reformulate** and use relevant understanding, methodologies and approaches to address **problematic situations** that involve many interacting factors. It includes taking responsibility for **planning and developing** courses of action that initiate or underpin substantial change or development, as well as exercising broad autonomy and judgment. It also reflects an understanding **of theoretical and relevant methodological perspectives, and how they affect their area of study or work**
8	Achievement at this level reflects the **ability to develop original understanding** and extend an area of knowledge or professional practice. It reflects the ability to address problematic situations that involve many complexes, interacting factors through initiating, designing and undertaking research, development or strategic activities. It involves the exercise of broad autonomy, judgement and leadership in sharing responsibility for the development of a field of work or knowledge, or for creating substantial professional or organisational change. It also reflects a critical understanding of relevant theoretical and methodological perspectives and how they affect the field of knowledge or work.

Figure 2: Malaysia Occupational Skills Qualification Framework (MOSQF) Levels Description

Source: MOSQ Division, Department of Skills Development

Date Reviewed: 2 April 2009

3. INTRODUCTION AND BACKGROUND OF THE TEXTILE AND APPAREL SECTOR

A textile is a flexible material consisting of a network of natural or artificial fibres often referred to as thread or yarn. Yarn is produced by spinning raw wool fibres, linen, cotton, or other material on a spinning wheel to produce long strands. Textiles are formed by weaving, knitting, crocheting, knotting, or pressing fibres together. Textile refers to any material made of interlacing fibres. Fabric refers to any material made through weaving, knitting, spreading, crocheting, or bonding. Cloth refers to a finished piece of fabric that can be used for a purpose such as covering a bed.

A feature of all modern human societies is the wearing of clothing or apparel, a category encompassing a wide variety of materials that cover the body. The primary purpose of apparel is functional, as a protection from the elements. Clothes also enhance safety during hazardous activities such as hiking and cooking, by providing a barrier between the skin and the environment. Furthermore, clothes provide a hygienic barrier, keeping toxins away from the body and limiting the transmission of germs. Apparel performs important social and cultural functions. A uniform, for example, may identify civil authority figures, such as police and army personnel, or it may identify team, group or political affiliations. In many societies, norms about apparel reflect standards of modesty, religion, gender, and social status. Apparel may also function as a form of adornment and an expression of personal taste or style.

There are many integrated activities in the textile and apparel industry ranging from spinning, weaving, knitting, dyeing, finishing, printing and textile laboratory, nonwoven manufacturing and apparel manufacturing.

3.1 Spinning

Spinning is an ancient textile art in which plant, animal or synthetic fibres are twisted together to form yarn. Yarn is a generic term for an assemblage of fibres or filaments, either natural or man-made, forming a continuous strand and used to make textile materials. Spun yarns, made from staple

fibres, are given certain twist in order to give strength and hold the fibres together. Filament fibres on the other hand, could be given a slight twist or no twist at all.

Staple fibres spun into yarns will undergo a series of processes such as blending, opening, picking, carding, combing, drawing, roving and spinning. Spinning is the final operation in staple yarn manufacture consisting of the drawing, twisting, and the winding of the newly spun yarns onto devices such as bobbin, spindle, cop, tube, cheese, etc.

i. Yarn formation

Yarn formation is the process of converting loose cotton fibre into a yarn structure, involving a progression of distinctly different and separate processes. The primary functions of these processes are fibre opening and blending, fibre cleaning, fibre straightening and paralleling, formation of a continuous fibrous strand and twist insertion. Whatever the end result desired, proper fibre selection is the foundation of any successful spinning operation.

The requirements of the end-product, or of the consumer of the yarn, will be the dictating forces in determining the fibre quality and properties that are best suited for the most economic situation.

ii. Yarn texturising

Texturised yarns are made by processes such as draw texturising and air texturising (sometimes referred to as *taslanising*), which combines multiple filament yarns into a yarn with some of the characteristics of spun yarns. In the air texturising, for example, the process is simply feeding a bundle of continuous filament yarns into a small jet nozzle with various amounts of slack (overfeed).

High air pressure creates a suction and a turbulent airstream which tangles any slack into a yarn with a similar hand as a spun yarn. It is the turbulent airflow that tangles the fibres. This method of yarn

productions creates a yarn that is normally more even than a spun yarn and does not pill like a spun yarn.

3.2 Weaving

Weaving is a textile craft in which two distinct sets of yarns or threads, called the warp and the filling or weft (older *woof*), are interlaced to form a fabric or cloth. The warp threads run lengthways on the piece of cloth, and the weft runs across from side to side, across the bolt of cloth. The way the warp and filling threads interlace with each other is called the weave. The majority of woven products are created with one of three basic weaves: plain weave, satin weave, or twill. Woven cloth can be plain (in one colour or a simple pattern), or can be woven in decorative or artistic designs, including tapestries. Fabric in which the warp and/or weft is tie-dyed before weaving is called pua, also known as *ikat*. Apart from tapestry and pua, songket, dastar is also the product of weaving process. However, these products are defined in the Textile Handicraft sub-sector due to their usage and uniqueness.

In general, weaving involves the interlacing of two sets of threads at right angles to each other: the warp and the weft. The warp is held taut and in parallel order, typically by means of a loom, though some forms of weaving may use other methods. The loom is warped (or dressed) with the warp threads passing through heddles on two or more harnesses. The warp threads are moved up or down by the harnesses creating a space called the shed. The weft thread is wound onto spools called bobbins. The bobbins are placed in a shuttle that carries the weft thread through the shed. The raising and lowering sequence of warp threads gives rise to many possible weave structures, which are plain weave, twill weave, satin weave and complex-computer generated interlacing. Both warp and weft can be visible in the final product. By spacing the warp more closely, it can completely cover the weft that binds it, giving a *warpfaced* textile such as rep weave. Conversely, if the warp is spread out, the weft can slide down and completely cover the warp, giving a *weftfaced* textile, such as a tapestry or a Kilim rug.

3.3 Knitting

Knitting is a method by which thread or yarn may be turned into cloth or other fine crafts. Knitting consists of consecutive loops, called stitches. As each row progresses, a new loop is pulled through an existing loop. The active stitches are held on a needle until another loop can be passed through them. This process eventually results in a final product, often a garment.

Knitting is a technique for producing a two-dimensional fabric made from a one-dimensional yarn or thread. In weaving, threads are always straight, running parallel either lengthwise (warp threads) or crosswise (weft threads). By contrast, the yarn in knitted fabrics follows a meandering path (a *course*), forming symmetric loops (also called bights) symmetrically above and below the mean path of the yarn. These meandering loops can be stretched easily in different directions, which give knitting much more elasticity than woven fabrics; depending on the yarn and knitting pattern, knitted garments can stretch as much as 500%. For this reason, knitting was initially developed for garments that must be elastic or stretch in response to the wearer's motions, such as socks and hosiery.

i. Warp knitting and weft knitting

There are two major varieties of knitting: weft knitting and warp knitting. In the more common *weft knitting*, the wales are perpendicular to the course of the yarn. In warp knitting, the wales and courses run roughly parallel. In weft knitting, the entire fabric may be produced from a single yarn, by adding stitches to each wale in turn, moving across the fabric as in a raster scan. By contrast, in warp knitting, one yarn is required for every wale. Since a typical piece of knitted fabric may have hundreds of wales, warp knitting is typically done by machine, whereas weft knitting is done by both hand and machine. Warp-knitted fabrics such as tricot and milanese are resistant to runs, and are commonly used in lingerie.

3.4 Dyeing, Finishing and Printing

Dyeing is the process of imparting colours to a textile material in loose fibre, yarn, cloth or garment form by treatment with a dye.

i. Yarn dyeing

There are many forms of yarn dyeing. Common forms are the at package form and the at hanks form. Cotton yarns are mostly dyed at package form, and acrylic or wool yarn are dyed at hank form. In the continuous filament industry, polyester or polyamide yarns are always dyed at package form, while viscose rayon yarns are partly dyed at hank form because of technology.

ii. Fabric dyeing

For most of the thousands of years in which dyeing has been used by humans to decorate clothing, or fabrics for other uses, the primary source of dye has been nature, with the dyes being extracted from animals or plants. Acrylic fibres are dyed with basic dyes, nylon and protein fibres such as wool and silk are dyed with acid dyes, polyester yarn is dyed with disperse dyes. Cotton is dyed with a range of dye types, including vat dyes, which are similar to the ancient natural dyes, and modern synthetic reactive and direct dyes.

iii. Finishing

In textile manufacturing, finishing refers to any process performed on yarn or fabric after weaving to improve the look, performance, or "hand" (feel) of the finished textile. In order to impart the required functional properties to the fibre or fabric, it is customary to subject the material to different type of physical and chemical treatments. For example wash and wear finish for a cotton fabric is necessary to make it crease free or wrinkle free. In a similar way, mercerising, singeing, flame retardant, water repellent, water proof, antistatic finish, peach finish etc are some of the important finishes applied to textile fabric.

The properties of plastic based synthetic fibres, most important among them being polyamide, polyester and polyacrylonitrile, are essentially different from those of natural cellulosic and wool fibres. Hence the sequence of finishing operations is likely to be different. While cellulosic's require a resin finishing treatment to impart easy-care properties, synthetic fibres already have these easy-care criteria and require only a heat setting operation.

iv. Printing

Textile printing is the process of applying colour to fabric in definite patterns or designs. In properly printed fabrics the colour is bonded with the fibre, so as to resist washing and friction. Textile printing is related to dyeing but, whereas in dyeing proper the whole fabric is uniformly covered with one colour, in printing one or more colours are applied to it in certain parts only, and in sharply defined patterns.

In printing, wooden blocks, stencils, engraved plates, rollers, or silkscreens are used to place colours on the fabric. Colourants used in printing contain dyes thickened to prevent the colour from spreading by capillary attraction beyond the limits of the pattern or design.

One of the most popular products from fabric dyeing and printing techniques is batik. Batik can be categorised into three types, which are Stamped Batik, Screen Batik and Hand-Drawn Batik. For this analysis, batik is defined under the sub sector Textile Handicraft.

3.5 Nonwoven Manufacturing

Nonwoven fabrics are broadly defined as sheet or web structures bonded together by entangling fibre or filaments (and by perforating films) mechanically, thermally or chemically. They are flat, porous sheets that are made directly from separate fibres or from molten plastic or plastic film. They are not made by weaving or knitting and do not require converting the fibres to yarn.

Nonwoven fabrics are engineered fabrics that may be a limited life, single-use fabric or a very durable fabric. Nonwoven fabrics provide specific functions such as absorbency, liquid repellency, resilience, stretch, softness, strength, flame retardancy, washability, cushioning, filtering, bacterial barrier and sterility. These properties are often combined to create fabrics suited for specific jobs, while achieving a good balance between product use-life and cost. They can mimic the appearance, texture and strength of a woven fabric and can be as bulky as the thickest paddings. In combination with other materials they provide a spectrum of products with diverse properties, and are used alone or as components of apparel, home furnishings, health care, engineering, industrial and consumer goods.

Listed below are some of the more familiar products made with nonwovens:

- disposable diapers, sanitary napkins and tampons
- sterile wraps, caps, gowns, masks and drapings used in the medical field
- household and personal wipes
- laundry aids (fabric dryer-sheets)
- apparel interlining
- carpeting and upholstery fabrics, padding and backing
- wall coverings
- agricultural coverings and seed strips
- automotive headliners and upholstery
- filters
- envelopes
- tags
- labels
- insulation

In general, the processes in nonwoven manufacturing can be divided into 2 main categories: Web Formation and Bonding Process. Tufting is not directly under nonwoven but can be categorised here since the process does not involve weaving or knitting.

i. Tufting

Today, most of the world's carpet production utilises tufting technology. The action of a tufting machine is quite similar to that of a domestic sewing machine. Yarn bobbins feed yarn to needles which stitch through the anchor(or "primary") backing to create loops. If a "velvet" finish is desired, these loops are cut with a blade, and the finish is referred to as "cut pile velvet". For a "loop pile" finish, the loops are left intact. "Cut and loop" finishes, which mix the two techniques, are also popular. The tufted base is sealed with an adhesive, and the secondary base (of jute or synthetic) is then applied using latex based glue. Designs may be created in two ways: by using pre-dyed yarns or cross over tufting machines; or, by printing a design on a plain tufted carpet base. Tufted carpets may be manufactured using 80% wool/20% nylon, 100% wool, 100% polyamide or any other manmade or natural fibre.

ii. Web Formation

There are 3 main types of web formation methods: Dry-Laid, Wet-Laid and Polymer-Laid. Each method are further divided into several processes.

a. Dry-Laid

Carding and Layering

The main objective of carding is to separate small tufts into individual fibres, to begin the process of parallelization and to deliver the fibres in the form of a web. The principle of carding is the mechanical action in which the fibres are held by one surface while the other surface combs the fibres

causing individual fibre separation. At its centre is a large rotating metallic cylinder covered with card clothing. The card clothing is comprised of needles, wires, or fine metallic teeth embedded in a heavy cloth or in a metallic foundation. The cylinder is partly surrounded by an endless belt of a large number of narrow, cast iron flats positioned along the top of the cylinder. The top of the cylinder may be covered by alternating rollers and stripper rolls in a roller-top card.

The fibres are fed by a chute or hopper and condensed into the form of a lap or batting. This is initially opened into small tufts by a licker-in, which feeds the fibres to the cylinder. The needles of the two opposing surfaces of the cylinder and flats or the rollers are inclined in opposite directions and move at different speeds. The main cylinder moves faster than the flats and, due to the opposing needles and difference in speeds, the fibre clumps are pulled and teased apart. In the roller-top card the separation occurs between the worker roller and the cylinder. The stripping roller strips the larger tufts and deposits them back on the cylinder. The fibres are aligned in the machine direction and form a coherent web below the surface of the needles of the main cylinder.

Airlaid

The term airlaid nonwoven refers to a manufacturing technology that produces a web from short fibres, most often softwood pulp. The process is also referred to as short fibre airlaid technology to distinguish it from the Rando Weber airlaid process that handles long synthetic fibres, generally rayon or polyester. While the principal fibre used to produce airlaid nonwovens is fluff pulp other natural and synthetic fibres can be used. The airlaid process was originally conceived as a method of making paper without the use of

water. In paper making, wood pulp is bonded principally by a chemical reaction between the pulp's natural cellulose and water. Bonding agents such as resin are added to enhance the paper's strength. In contrast, airlaid nonwoven technology generally uses latex emulsions, thermoplastic fibres or some combination of both to bond the web's fibres and increase the strength and integrity of the sheet. The process yields a paper-like fabric that is thicker, softer and more absorbent than paper. It also has greater tear resistance and tensile strength, particularly when wet. These physical characteristics of airlaid nonwovens make them suitable for many disposable absorbent applications in consumer, industrial and institutional markets. The main product categories where airlaid nonwovens are currently used include:

- Disposable wiping applications: Baby wipes, Wet hand wipes, Household cleaning wipes and mops (dry and wet), Industrial wipes (dry and wet)
- Table-top and food handling applications: Napkins, Table covers, Cooking paper, Meat pads
- Personal Care Products: Feminine napkins, Adult Incontinence products, Baby diapers, training pants, swimming diapers

b. Wet-Laid

Wet-laid nonwovens are nonwovens made by a modified papermaking process. That is, the fibres to be used are suspended in water. A major objective of wet laid nonwoven manufacturing is to produce structures with textile-fabric characteristics, primarily flexibility and strength, at speeds approaching those associate with papermaking. Specialised paper machines are used to separate the water from the fibres to form a uniform sheet of material, which is then bonded and

dried. In the roll good industry 5-10% of nonwovens are made by using the wet laid technology.

The wet-laid process has its origins in the manufacture of paper and is developed because paper manufacturers wanted to be able to use uncut, long natural fibres and synthetic fibres in addition to the usual raw materials without changing the process.

Two fundamental reasons account for physical property differences between paper and textiles. The first is the difference in the raw materials each process uses. Papermaking fibres being short and fine are able to pack together into a dense structure. Chemical groups attached to their surfaces are able to form hydrogen bonds with similar groups on neighbouring fibres very easily. Textile fibres, on the other hand, tend to be longer, stronger, and relatively inert when compared to papermaking fibres. The second difference is the structure and the way individual fibres are arranged by the process to make a finished product. In paper, the fibres overlap randomly and pack densely. In textiles, there is a repeating unit structure which provides some extensibility in all directions, but which preserves the basic strength and stability of the fabric (whether knit of woven). In light of the characteristics of these raw materials and structure, one would expect paper to be weak, stiff, inextensible, smooth, and dense, while textiles would be stronger, softer, bulkier, more drapability, less smooth and more porous.

Manufacturers of wet-laid nonwovens desire to take advantage of the high production rate (up to 1000m/min) and the ability to blend a variety of fibres from papermaking technology. On the other hand, they must overcome the difficulties brought on by using textile fibres and producing fabric stiffness in wet-

laying if this technology is to compete realistically with textiles and other nonwoven products.

To alter the basic properties of paper, one must attack paper's two problems discussed above (raw material limitations and structure deficiencies). This has been done by including synthetic fibres in the raw materials for wet-laid nonwovens, by bonding the fibres together (rather than weaving, knitting, or relying on hydrogen bonding), and by using new methods of web forming which improve the structure. The strategies have been successful to one degree of another, either separately or in combination, but each introduces problems for the production process.

In theory, any natural or synthetic fibre could be used in the production of wet-laid nonwovens. However, there are practical limitations on the use of many fibres (cost, availability, priorities, etc). Some forms of wood pulp are used in virtually all wet-laid nonwovens because of its ease of handling, low cost, opacity, and chemical reactivity. Natural fibres other than wood pulp remain of interest because they have valuable properties for specialized end-uses. They suffer from unstable pricing and supply due to variations in climate, worldwide demand, and availability of competing fibres. Some natural fibres - such as cotton linters, manila hemp and cellulose staple fibres - are also used in wet-laid process.

Synthetic fibres provide specialised properties, uniformity, and constancy of supply which cannot be achieved by natural fibres. Some are used more widely than other for example, bicomponent fibres, which simultaneously provide both a structural element and a thermobonding capability, have been used in specialised materials despite their high cost. Crimped fibres require special dispersion and bonding techniques, but

make a very soft and bulky product. Usually 2-30 mm fibres are used in wet laid process; use of rayon and polyester textile fibres with lengths exceeding 1.5 inches has been reported sporadically. "Synthetic wood pulp" made from very short, shear-precipitated polyolefin fibres is available and results in improved wet strength and other properties of wet-laid nonwovens.

Unfortunately, synthetic fibres for use in wet-laid nonwovens are 20 to 50% more expensive than the same fibre in the form of textile staple, because the market is small relative to that for textile fibres, and special handling and cutting are required. Specialty fibres such as low-melting bicomponent fibres are even more expensive, and their total production is too small to allow economies of scale to be fully realized.

c. Polymer –Laid

Melt Blown

Melt blowing is a process for producing fibrous webs or articles directly from polymers or resins using high-velocity air or another appropriate force to attenuate the filaments. The melt blowing process is one of the newer and least developed nonwoven processes. This process is unique because it is used almost exclusively to produce microfibres rather than fibres the size of normal textile fibres. Melt blowing microfibres generally have diameters in the range of 2 to 4 μm, although they may be as small as 0.1 μm and as large as 10 to 15 μm. Differences between melt blowing nonwoven fabrics and other nonwoven fabrics, such as degree of softness, cover or opacity, and porosity can generally be traced to differences in filament size.

Spunbond

Spunbond fabrics are produced by depositing extruded, spun filaments onto a collecting belt in a uniform random manner followed by bonding the fibres. The fibres are separated during the web laying process by air jets or electrostatic charges. The collecting surface is usually perforated to prevent the air stream from deflecting and carrying the fibres in an uncontrolled manner. Bonding imparts strength and integrity to the web by applying heated rolls or hot needles to partially melt the polymer and fuse the fibres together. Since molecular orientation increases the melting point, fibres that are not highly drawn can be used as thermal binding fibres. Polyethylene or random ethylene-propylene copolymers are used as low melting bonding sites. Spunbond products are employed in carpet backing, geotextiles, and disposable medical/hygiene products. Since the fabric production is combined with fibre production, the process is generally more economical than when using staple fibre to make nonwoven fabrics.

iii. **Bonding Process**

There are 3 types of bonding: Mechanical Bonding, Thermal Bonding and Chemical Bonding.

a. Mechanical Bonding

Needle Punch

Needle punched fabrics are made by barbed felting needles punching bating into a centre fabric. This forms a flat fabric like carpet mainly used for indoor-outdoor carpeting, artificial grass surfaces, and some carpet tiles. Needle punched carpet can be printed, flocked or embossed. Different textural effects, such as corduroy, can be attained by mixing fibre deniers and

angling the needle in various ways. A coating of weather-resistant latex or similar material is applied to the back.

Spun Lace (or Hydroentanglement)

The oldest technique for consolidating fibres in a web is mechanical bonding, which entangles the fibres to give strength to the web. Under mechanical bonding, the two most widely used methods are needlepunching and spunlacing (hydroentanglement). Spunlacing uses high-speed jets of water to strike a web so that the fibres knot about one another. As a result, nonwoven fabrics made by this method have specific properties, as soft handle and drapability. Japan is the major producer of hydroentangled nonwovens in the world. The output of spunlaced fabrics containing cotton was 3,700 metric tons and a significant growth in production can still be seen.

This technology was officially introduced by DuPont in 1973 (Sontara®) and is a result of considerable work done by DuPont and Chicopee (DuPont obtained five patents on spun laced nonwovens within the period 1963-1970. Since the 1990's, the technology has been made more efficient and affordable for more manufacturers. Majorities of hydro entangled fabrics have incorporated dry-laid webs (carded or air-laid webs as precursors). This trend has changed very recently with an increase in wet-laid precursor webs. This is because of Dexter making use of Unicharm's technology to make spun laced fabrics using wet-laid fabrics as precursors.

So far, there are many different specific terms for spun laced nonwoven like jet entangled, water entangled, and hydro entangled or hydraulically needled. The term, spun laced, is used more popularly in the nonwoven industry. In fact, the

spun laced process can be defined as: the spun laced process is a nonwovens manufacturing system that employs jets of water to entangle fibres and thereby provide fabric integrity. Softness, drape, conformability, and relatively high strength are the major characteristics that make spun laced nonwoven unique among nonwovens.

b. Thermal Bonding

Thermal bonding is the process of using heat to bond or stabilise a web structure that consists of a thermoplastic fibre. All part of the fibres act as thermal binders, thus eliminating the use of latex or resin binders. Thermal bonding is the leading method used by the cover stock industry for baby diapers. Polypropylene has been the most suitable fibre with a low melting point of approximately 165°C. It is also soft to touch. The fibre web is passed between heated calender rollers, where the web is bonded. In most cases point bonding by the use of embossed rolls is the most desired method, adding softness and flexibility to the fabric. The use of smooth rolls bonds the entire surface of the fabric increasing the strength, but reduces drape and softness. Methods of thermal bonding are such as hot calendaring, belt calendaring, through-air thermal bonding, radiant-heat bonding, etc.

c. Chemical Bonding

Bonding a web by means of a chemical is one of the most common methods of bonding. The chemical binder is applied to the web and is cured. The most commonly used binder is latex, because it is economical, easy to apply and very effective. Several methods are used to apply the binder and include saturation bonding, spray bonding, print bonding and foam bonding.

Chemical or resin bonding is a generic term for interlocking fibres by the application of a chemical binder. The chemical binder most frequently used to consolidate fibre webs today is a water-borne latex. Most latex binders are made from vinyl materials, such as polyvinylacetate, polyvinylchloride, styrene/butadiene resin, butadiene, and polyacrylic, or their combinations.

Latexes are extensively used as nonwoven binders, because they are economical, versatile, easily applied, and effective adhesives. The versatility of a chemical binder system can be indicated by enumerating a few factors that are considered when such a system is formulated.

The chemical composition of the monomer or backbone material determines stiffness/softness properties, strength, water affinity (hydrophilic/hydrophobic balance), elasticity, durability, and aging. The type and nature of functional side groups determines solvent resistance, adhesive characteristics, and cross-linking nature. The type and quantity of surfactant used influence the polymerisation process, polymer stability, and the application method.

Chemical binders are applied to webs in amounts ranging from about 5% to as much as 60% by weight. In some instances, when clays or other weighty additives are included, add-on levels can approach or even exceed the weight of the web. Waterborne binders are applied by spray, saturation, print, and foam methods. A general objective of each method is to apply the binder material in a manner sufficient to interlock the fibres and provide fabric properties required of the intended fabric usage. The common methods of bonding include saturation, foam, spray, print and powder bonding.

3.6 Apparel Manufacturing

i. Cutting

Cutting is the process of spreading and cutting fabric based on marker or pattern. Fabric is cut using traditional as well as computerised cutting systems.

ii. Sewing

Sewing is the craft of fastening or attaching objects using stitches made with needle and thread. Sewing is one of the oldest of the textile arts, arising in the Paleolithic Era. Before the discovery of spinning yarn or weaving fabric, archaeologists believe Stone Age people across Europe and Asia sewed fur and skin clothing using bone, antler or ivory needles and "thread" made of various animal body parts including sinew, catgut, and veins.

Sewing is used in a variety of crafts and industries, including shoemaking, upholstery, sail making, bookbinding and the manufacturing of some kinds of sporting goods. Sewing is the fundamental process underlying a variety of textile arts and crafts, including embroidery, tapestry, quilting, appliqué and patchwork.

In sewing, a stitch is a single loop of thread brought in-and-out of the fabric in a particular way. A variety of stitches are used for specific purposes, named according to the position of the needle and direction of sewing (*running stitch*, *backstitch*), the form or shape of the stitch (*chain stitch*, *feather stitch*) or the purpose of the stitch (tailor's tack, *hem stitch*). There are three types of sewing, which are Plain, Fancy and Heirloom sewing.

3.7 Textiles and Apparels Industry in Malaysia

The growth of Malaysia's textiles and apparel industry accelerated in the early 1970s when the country embarked on export-oriented industrialisation. With exports valued at RM 10.49 billion while imports amounted to RM 5.46 billion thus making Malaysia a net exporter of textiles and textile products. There are 662 licensed companies in production with investments of RM8.3 billion. The industry employs more than 68,264 workers.

The industry currently encompasses a broad range of integrated activities ranging from polymerisation and man-made fibre production, spinning, texturing, weaving, knitting, dyeing, printing and finishing of yarn and fabrics; manufacture of made-up garments and other made-up textile goods such as carpets, bed and table linen and ropes. The industry also covers the manufacture of n on-woven fabrics for personal care products, made-up garments, furniture and bedding as well as construction and engineering applications.

New growth areas in textiles industry have been targeted for promotion under the Third Industrial Master Plan (IMP3). The growth areas for the industry include: industrial and home textiles; functional fabrics; high-end fabrics and garments; ethnic fabrics; and key support facilities and services such as design houses and fashion centres, specialised dyeing and finishing facilities, etc.

Six strategic thrusts have been set for further development of the industry during the IMP3 period. The thrusts include intensifying the promotion of investment in higher value-added textiles and apparel, including key support services, sustaining the market share and promoting exports of the targeted growth areas, intensifying regional integration of the industry, enhancing domestic capabilities and facilitating the utilisation of ICT and new technologies, enhancing the skills of the workforce in designing production and marketing, and strengthening the institutional support for the further development of the industry.

To encourage investments in the textiles and apparel industry, several textile products/activities have been gazetted as promoted products /activities under the Promotion of Investment Act, 1986 and could be considered for tax incentives in the form of Pioneer Status or Investment Tax Allowance.

4. METHODOLOGY OF OCCUPATIONAL ANALYSIS – TEXTILE AND APPAREL SECTOR

In conducting the occupational analysis, brainstorming sessions were held in accordance with guidelines as outlined by Department of Skills Development in terms of scope of study, time frame and representation by panel of Textile and Apparel experts from both public and private sector as stipulated in the letter of offer.

There were several approach used in this occupational analysis. The different approach was used to make sure all the information were well collected and to get better understanding of the sector itself.

4.1 Literature Research

Literature research on the Textile and Apparel sector was carried out to get some insight on the scope, policy, program and activities in the context of Malaysian scenario. The scope covered under this research includes definitions, current analysis of the sector/sub-sector, current status of the Textile and Apparel sector, skilled workers requirement in the local industry and the industrial competition at international level.

4.2 Identifying the industry players

The literature search findings were used as a guide to identify the scope of occupational study and analysis. From that, players from the sub-sector of Textile and Apparel were identified and short listed for further communication, contact and interviews. A pool of experts from the industry has been contacted and interviewed. Some kind of working relationship has been established with these experts. For this analysis, the list of the panel experts can be found in *Annex 1: List of Panel Expert for the Development of Occupational Analysis for Textile & Apparel Sector*.

4.3 Analysing Information

Based on the activities done as above, substantial data and information were collected. The data and information were discussed and analysed in several in-house workshops attended by key players and experts from the industry.

During these sessions, attempts to reframe the Textile and Apparel sub sector in Malaysia were made using the following framework:

i. Scope of the Textile and Apparel sector and its sub sector;
ii. Job Area;
iii. Job Title;
iv. Hierarchy Structure (Level 1 – 8);
v. Occupational Definition.

4.4 Workshop

A workshop on the Material Textile and Apparel sector was held, attended by experts in the field of Textile and Apparel. The objectives of the workshop are:

- Present the preliminary findings on:
  - Outline of Job Title
  - Career structure
  - Hierarchy structure (Level 1 – 8)
  - Occupational Definition
- Conduct Occupational Analysis Session
- Validation of the findings

5. OCCUPATIONAL ANALYSIS FINDINGS

Based on the Occupational Analysis carried out as outlined in the methodology, the findings of this study are as follows:

5.1 Scope of Textile and Apparel sector in Malaysia

Textile and Apparel can be defined as the whole textile and apparel manufacturing industry. This analysis is including the production of Textile Handicraft product, which are songket, dastar, pua, tapestry and batik.

Textile and Apparel sector in Malaysia is categorically divided into 9 sub sectors/job area namely Spinning, Weaving, Knitting, Dyeing, Finishing, Printing and Textile Laboratory, Non Woven Manufacturing, Textile Handicraft, Textile Machine Maintenance, Apparel Manufacturing and Industrial Engineering. From the 9 sub sectors mentioned, a total of 21 job areas are identified existed in Malaysia. These sub sectors and job areas are illustrated in *Table 1: Sub Sector and Job Area in Textile and Apparel.*

Table 1: Sub Sector and Job Area in Textile and Apparel

SECTOR	SUB SECTOR	AREA	JOB AREA
Textile and Apparel	Spinning	Yarn Formation	
		Yarn Texturizing	
	Weaving	Fabric Formation	(a) Warping (b) Sizing (c) Beaming (d) Leasing-in (e) Draw-in (f) Reed-in (g) Weaving (h) Quality Inspection
	Knitting	Warp	(a) Warping (b) Warp knitting
		Weft	(a) Weft Knitting
	Dyeing, Finishing, Printing &	Dyeing	(a) Yarn Dyeing (b) Fabric Dyeing
		Finishing	(a) Scutching (b) Drying (c) Chemical Preparation (d) Stentering (e) Sanding (f) Calendering (g) Continuous Denier Reduction (CDR) (h) Chintz (i) Sanforizing

SECTOR	SUB SECTOR	AREA	JOB AREA
		Printing	(a) Design (b) Design Transfer (c) Dyestuff (d) Preparation (e) Printing (f) Curing
		Textile Laboratory	(a) Fibre Testing (b) Yarn testing (c) Fabric testing (d) Finished Fabric Testing
	Nonwoven Manufacturing	Tufting	(a) Design (b) Dyeing (c) Rewinding
		Web Formation	(a) Dry-Laid (b) Wet-Laid (c) Polymer-Laid
		Bonding	(a) Mechanical (b) Thermal (c) Chemical
	Textile Handicraft	Songket	
		Dastar	
		Pua	
		Tapestry	
		Batik	(a) Stamped Batik (b) Screen Batik (c) Hand-Drawn batik
	Textile Machine Maintenance		

SECTOR	SUB SECTOR	AREA	JOB AREA
	Apparel Manufacturing	Custom Made	(a) Garments Alteration (b) Embroidery (c) Men's Wear (d) Ladies' Wear
		Mass Production	(a) Apparel Merchandising (b) Design and Sample (c) Cutting Section (d) Sewing Section (e) Finishing (f) Quality Assurance (g) Apparel Manufacturing Machine Maintenance
	Industrial Engineering		

5.2 Job Title and Hierarchy

In the Occupational Analysis conducted for Textile and and Apparel sector, the job title and hierarchy are defined from the current practice in the industry. Details of Job Title and Hierarchy in Textile and Apparel sector are explained in the following figures:

SECTOR	TEXTILE & APPAREL								
SUB SECTOR	SPINNING		WEAVING	KNITTING		DYEING, FINISHING, PRINTING & TEXTILE LABORATORY			
JOB AREA	YARN FORMATION	YARN TEXTURIZING	FABRIC FORMATION	WARP	WEFT	DYEING	FINISHING	PRINTING	TEXTILE LABORATORY
LEVEL 8	NO LEVEL		NO LEVEL	NO LEVEL		NO LEVEL			
LEVEL 7	NO LEVEL		NO LEVEL	NO LEVEL		NO LEVEL			
LEVEL 6	NO LEVEL		NO LEVEL	NO LEVEL		NO LEVEL			
LEVEL 5	PLANT MANAGER		*WEAVING TECHNOLOGIST	PLANT MANAGER					TEXTILE LABORATORY OFFICER
LEVEL 4	YARN FORMATION EXECUTIVE	YARN TEXTURIZING EXECUTIVE	*WEAVING ASSISTANT TECHNOLOGIST	KNITTING EXECUTIVE		TEXTILE DYEING EXECUTIVE	TEXTILE FINISHING EXECUTIVE	TEXTILE PRINTING EXECUTIVE	TEXTILE LABORATORY SENIOR ASSISTANT
LEVEL 3	*YARN FORMATION SUPERVISOR	YARN TEXTURIZING SUPERVISOR	*WEAVING SUPERVISOR	*WARP KNITTING SUPERVISOR	*WEFT KNITTING SUPERVISOR	TEXTILE DYEING SUPERVISOR	*TEXTILE FINISHING SUPERVISOR	*TEXTILE PRINTING SUPERVISOR	TEXTILE LABORATORY ASSISTANT
LEVEL 2	*YARN FORMATION SENIOR OPERATOR	YARN TEXTURIZING SENIOR OPERATOR	*WEAVING SENIOR OPERATOR	*WARP KNITTING SENIOR OPERATOR	*WEFT KNITTING SENIOR OPERATOR	TEXTILE DYEING SENIOR OPERATOR	*TEXTILE FINISHING SENIOR OPERATOR	*TEXTILE PRINTING SENIOR OPERATOR	TEXTILE LABORATORY JUNIOR ASSISTANT
LEVEL 1	*YARN FORMATION OPERATOR	YARN TEXTURIZING OPERATOR	*WEAVING OPERATOR	*WARP KNITTING OPERATOR	*WEFT KNITTING OPERATOR	TEXTILE DYEING OPERATOR	*TEXTILE FINISHING OPERATOR	*TEXTILE PRINTING OPERATOR	NO LEVEL

* Critical Job Title

Figure 3: Job Title and Hierarchy in Sub Sector Spinning, Weaving, Knitting and Dyeing, Finishing, Printing & Textile Laboratory

SECTOR	TEXTILE & APPAREL										
SUB SECTOR	NONWOVEN MANUFACTURING			TEXTILE HANDICRAFT							TEXTILE MACHINE MAINTENANCE
JOB AREA	TUFTING	WEB FORMATION	BONDING	SONGKET	DASTAR	PUA	TAPESTRY	BATIK			
								STAMPED BATIK	SCREEN BATIK	HAND-DRAWN BATIK	
LEVEL 8	NO LEVEL			NO LEVEL							NO LEVEL
LEVEL 7	NO LEVEL			NO LEVEL							NO LEVEL
LEVEL 6	NO LEVEL			NO LEVEL							NO LEVEL
LEVEL 5	PLANT MANAGER			WEAVING INDUSTRY MANAGER (SS-142-5)				BATIK PRODUCTION MANAGER (SS-130-5)			TEXTILE MACHINE MAINTENANCE MANAGER
LEVEL 4	TUFTING EXECUTIVE	WEB FORMATION EXECUTIVE	BONDING EXECUTIVE	WEAVING INDUSTRY EXECUTIVE (SS-142-4) / WEAVING DESIGNER (SS-140-4)				BATIK PRODUCTION EXECUTIVE (SS-110-4) / BATIK DESIGNER (SS-120-4)			TEXTILE MACHINE MAINTENANCE EXECUTIVE
LEVEL 3	TUFTING SUPERVISOR	WEB FORMATION SUPERVISOR	BONDING SUPERVISOR	*SONGKET WEAVING SUPERVISOR (SS-142-3)	*DASTAR WEAVING SUPERVISOR (SS-142-3)	*PUA WEAVING SUPERVISOR (SS-141-3)	*TAPESTRY WEAVING SUPERVISOR (SS-140-3)	*STAMPED BATIK SUPERVISOR (SS-080-3)	*SCREEN BATIK SUPERVISOR (SS-090-3)	*HAND-DRAWN BATIK ARTIST SUPERVISOR (SS-100-3)	*TEXTILE MACHINE MAINTENANCE SENIOR TECHNICIAN
LEVEL 2	TUFTING SENIOR OPERATOR	WEB FORMATION SENIOR OPERATOR	BONDING SENIOR OPERATOR	*SENIOR WEAVER SONGKET (SS-142-2)	*SENIOR WEAVER DASTAR (SS-142-2)	*SENIOR PUA WEAVER (SS-141-2)	*SENIOR TAPESTRY WEAVER (SS-140-2)	*SENIOR STAMPED BATIK MAKER (SS-080-2)	*SENIOR SCREEN BATIK MAKER (SS-090-2)	*SENIOR HAND-DRAWN BATIK ARTIST (SS-100-2)	*TEXTILE MACHINE MAINTENANCE TECHNICIAN
LEVEL 1	TUFTING OPERATOR	WEB FORMATION OPERATOR	BONDING OPERATOR	*WEAVER SONGKET (SS-142-1)	*WEAVER DASTAR (SS-142-1)	NO LEVEL	*TAPESTRY WEAVER (SS-140-1)	*STAMPED BATIK MAKER (SS-080-1)	*SCREEN BATIK MAKER (SS-090-1)	*HAND-DRAWN BATIK ARTIST (SS-100-1)	*TEXTILE MACHINE MAINTENANCE JUNIOR TECHNICIAN

* Critical Job Title

Figure 4: Job Title and Hierarchy in Sub Sector Nonwoven Manufacturing, Textile Handicraft and Textile Machine Maintenance

SECTOR	TEXTILE & APPAREL						
SUB SECTOR	APPAREL MANUFACTURING						
AREA	CUSTOM MADE				MASS PRODUCTION		
JOB AREA	GARMENTS ALTERATION	EMBROIDERY	MEN'S WEAR	LADIES' WEAR	APPAREL MERCHANDISING	DESIGN & SAMPLE	
						DESIGNING	SAMPLE MAKING
LEVEL 8	NO LEVEL						
LEVEL 7	NO LEVEL						
LEVEL 6	NO LEVEL						
LEVEL 5	NO LEVEL	NO LEVEL	FASHION AND APPAREL MANAGER (K-022-5)		APPAREL MERCHANDISING MANAGER	APPAREL DESIGN MANAGER	
LEVEL 4	NO LEVEL	NO LEVEL	FASHION AND APPAREL EXECUTIVE (K-022-4)		APPAREL SENIOR MERCHANDISER	APPAREL DESIGN EXECUTIVE	SAMPLE MAKING EXECUTIVE
LEVEL 3	NO LEVEL	NO LEVEL	*MEN'S WEAR SENIOR TAILOR (TA-010-3)	*LADIES' SENIOR DRESSMAKER (K-012-3)	*APPAREL MERCHANDISER	*APPAREL DESIGNER	*SENIOR SAMPLE MAKER
LEVEL 2	*GARMENTS ALTERATIONIST	*EMBROIDERER	*MEN'S WEAR TAILOR (TA-010-2)	*LADIES' DRESSMAKER (K-012-2)	*APPAREL ASSISTANT MERCHANDISER	*ASSISTANT APPAREL DESIGNER	*SAMPLE MAKER
LEVEL 1	NO LEVEL	NO LEVEL	*MEN'S WEAR JUNIOR TAILOR (TA-010-1)	*LADIES' JUNIOR DRESSMAKER (K-012-1)	NO LEVEL	NO LEVEL	NO LEVEL
PRE-REQUISITE	Pre requisite to Level 2 Garments Alterationist & Level 2 Embroiderer is Men's Wear Junior Tailor Level 1 or Ladies' Junior Dressmaker Level 1						

* Critical Job Title

Figure 5: Job Title and Hierarchy in Sub Sector Nonwoven Manufacturing, Textile Handicraft and Textile Machine Maintenance

SECTOR	TEXTILE & APPAREL									
SUB SECTOR	APPAREL MANUFACTURING									
AREA	MASS PRODUCTION									
JOB AREA	CUTTING SECTION				SEWING SECTION	FINISHING SECTION				QUALITY ASSURANCE	APPAREL MANUFACTURING MACHINE MAINTENANCE
	PATTERN MAKING	MARKER PLANNING	CUTTING	EMBROIDERY		TRIMMING	IRONING	FOLDING	PACKING		
LEVEL 8	NO LEVEL										
LEVEL 7	NO LEVEL										
LEVEL 6	NO LEVEL										
LEVEL 5	PLANT MANAGER									QUALITY ASSURANCE MANAGER	APPAREL MANUFACTURING MACHINE MAINTENANCE MANAGER
LEVEL 4	CUTTING EXECUTIVE				SEWING EXECUTIVE	FINISHING EXECUTIVE				QUALITY ASSURANCE EXECUTIVE	APPAREL MANUFACTURING MACHINE MAINTENANCE EXECUTIVE
LEVEL 3	*SENIOR PATTERN MAKER	*SENIOR MARKER PLANNER	*CUTTING SUPERVISOR	*EMBROIDERY SUPERVISOR	*SEWING SUPERVISOR (K-040-3)	FINISHING SUPERVISOR				QUALITY ASSURANCE SUPERVISOR	*APPAREL MANUFACTURING MACHINE MAINTENANCE SENIOR TECHNICIAN
LEVEL 2	*PATTERN MAKER	*MARKER PLANNER	*CUTTING OPERATOR	*EMBROIDERY SENIOR OPERATOR	*SEWING SENIOR OPERATOR (K-040-2)	FINISHING SENIOR OPERATOR				QUALITY ASSURANCE INSPECTOR	*APPAREL MANUFACTURING MACHINE MAINTENANCE TECHNICIAN
LEVEL 1	NO LEVEL	NO LEVEL	NO LEVEL	*EMBROIDERY OPERATOR	*SEWING OPERATOR (K-040-1)	FINISHING OPERATOR				NO LEVEL	*APPAREL MANUFACTURING MACHINE MAINTENANCE JUNIOR TECHNICIAN

* Critical Job Title

Figure 6: Job Title and Hierarchy in Sub Sector Nonwoven Manufacturing, Textile Handicraft and Textile Machine Maintenance

SECTOR	TEXTILE & APPAREL
SUB SECTOR	**INDUSTRIAL ENGINEERING**
LEVEL 8	NO LEVEL
LEVEL 7	NO LEVEL
LEVEL 6	NO LEVEL
LEVEL 5	*INDUSTRIAL ENGINEERING TECHNOLOGIST
LEVEL 4	*INDUSTRIAL ENGINEERING ASSISTANT TECHNOLOGIST
LEVEL 3	*INDUSTRIAL ENGINEERING SENIOR TECHNICIAN
LEVEL 2	*INDUSTRIAL ENGINEERING TECHNICIAN
LEVEL 1	NO LEVEL
PRE-REQUISITE	Pre requisite to Level 2 Industrial Engineering Technician is Textile Machine Maintenance Junior Technician Level 1 or Apparel Manufacturing Machine Maintenance Junior Technician Level 1

* Critical Job Title

Figure 7: Job Title and Hierarchy in Sub Sector Industrial Engineering

5.3 Occupational Definition

Each sub-sector in the Textile and Apparel sector is further refined by identifying and defining the job titles involved. Each job title is given an occupational definition as specified in *Annex 2: Occupational Definition in Textile and Apparel.*

5.4 Critical & Non Critical Job Title

The critical job titles have been determined based on the analysis of the Textile and Apparel sector conducted with the panel experts. In the process of gathering the critical job title, four methods were adopted. The methods are questionnaire/surveys, face-to-face interview with industry players, observation and workshop. These critical job titles have been defined as critical because they are currently in demand. Formal skills training and certification is required in order to recognise and maintain the competency standards of the workforce in the Textile and Apparel industry.

Table 2: Summary of Critical and Non Critical Job in Textile and Apparel

	SUB SECTOR / JOB AREA		LEVEL								Total
			L1	L2	L3	L4	L5	L6	L7	L8	
1.	Spinning	*Critical*	1	1	1	0	0	0	0	0	3
		Non-Critical	1	1	1	2	1	0	0	0	6
2.	Weaving	*Critical*	1	1	1	1	1	0	0	0	5
		Non-Critical	0	0	0	0	0	0	0	0	0
3.	Knitting	*Critical*	2	2	2	0	0	0	0	0	6
		Non-Critical	0	0	0	1	0	0	0	0	1
4.	Dyeing, Printing, Finishing and Textile Laboratory	*Critical*	2	2	2	0	0	0	0	0	6
		Non-Critical	1	2	2	4	1	0	0	0	10
5.	Non Woven Manufacturing	*Critical*	0	0	0	0	0	0	0	0	0
		Non-Critical	3	3	3	3	0	0	0	0	12
6.	Textile Handicraft	*Critical*	6	7	7	0	0	0	0	0	20
		Non-Critical	0	0	0	4	2	0	0	0	6
7.	Textile Machine Maintenance	*Critical*	1	1	1	0	0	0	0	0	3
		Non-Critical	0	0	0	1	1	0	0	0	2
8.	Apparel Manufacturing	*Critical*	5	13	11	0	0	0	0	0	29
		Non-Critical	1	2	2	9	5	0	0	0	19
9.	Industrial Engineering	*Critical*	0	1	1	1	1	0	0	0	4
		Non-Critical	0	0	0	0	0	0	0	0	0
Total		*Critical*	18	28	26	2	2	0	0	0	**76**
		Non-Critical	6	8	8	24	10	0	0	0	**55**
GRAND TOTAL			**24**	**36**	**34**	**26**	**12**	**0**	**0**	**0**	**132**

From the occupational analysis carried out, there are 76 job titles defined as Critical and 55 job titles defined as Non-Critical. Below are the lists of critical job titles:

SUB SECTOR: Spinning

No.	Job Title	Level
1.	Yarn Formation Operator	1
2.	Yarn Formation Senior Operator	2
3.	Yarn Formation Supervisor	3

SUB SECTOR: Weaving

No.	Job Title	Level
1.	Weaving Operator	1
2.	Weaving Senior Operator	2
3.	Weaving Supervisor	3
4.	Weaving Assistant Technologist	4
5.	Weaving Technologist	5

SUB SECTOR: Knitting

No.	Job Title	Level
1.	Warp Knitting Operator	1
2.	Weft Knitting Operator	1
3.	Warp Knitting Senior Operator	2
4.	Weft Knitting Senior Operator	2
5.	Warp Knitting Supervisor	3
6.	Weft Knitting Supervisor	3

SUB SECTOR: Dyeing, Finishing, Printing & Textile Laboratory

No.	Job Title	Level
1.	Textile Finishing Operator	1
2.	Textile Printing Operator	1
3.	Textile Finishing Senior Operator	2
4.	Textile Printing Senior Operator	2
5.	Textile Finishing Supervisor	3
6.	Textile Printing Supervisor	3

SUB SECTOR: Textile Handicraft

No.	Job Title	Level
1.	Weaver Songket	1
2.	Weaver Dastar	1
3.	Tapestry Weaver	1
4.	Stamped Batik Maker	1
5.	Screen Batik Maker	1
6.	Hand-Drawn Batik Artist	1
7.	Senior Weaver Songket	2
8.	Senior Weaver Dastar	2
9.	Senior Pua Weaver	2
10.	Senior Tapestry Weaver	2
11.	Senior Stamped Batik Maker	2
12.	Senior Screen Batik Maker	2
13.	Senior Hand-Drawn Batik Artist	2
14.	Songket Weaving Supervisor	3
15.	Dastar Weaving Supervisor	3
16.	Pua Weaving Supervisor	3
17.	Tapestry Weaving Supervisor	3
18.	Stamped Batik Supervisor	3
19.	Screen Batik Supervisor	3
20.	Hand-Drawn Batik Artist Supervisor	3

SUB SECTOR: Textile Machine Maintenance

No.	Job Title	Level
1.	Textile Machine Maintenance Junior Technician	1
2.	Textile Machine Maintenance Technician	2
3.	Textile Machine Maintenance Senior Technician	3

SUB SECTOR: Apparel Manufacturing

No.	Job Title	Level
1.	Men's Wear Junior Tailor	1
2.	Ladies' Junior Dressmaker	1
3.	Embroidery Operator	1
4.	Sewing Operator	1
5.	Apparel Manufacturing Machine Maintenance Junior Technician	1
6.	Garments Alterationist	2
7.	Embroiderer	2
8.	Men's Wear Tailor	2
9.	Ladies' Dressmaker	2
10.	Apparel Assistant Merchandiser	2
11.	Assistant Apparel Designer	2
12.	Sample Maker	2
13.	Pattern Maker	2
14.	Marker Planner	2
15.	Cutting Operator	2
16.	Embroidery Senior Operator	2
17.	Sewing Senior Operator	2
18.	Apparel Manufacturing Machine Maintenance Technician	2
19.	Men's Wear Senior Tailor	3
20.	Ladies' Senior Dressmaker	3
21.	Apparel Merchandiser	3
22.	Apparel Designer	3

23.	Senior Sample Maker	3
24.	Senior Pattern Maker	3
25.	Senior Marker Planner	3
26.	Cutting Supervisor	3
27.	Finishing Supervisor	3
28.	Sewing Supervisor	3
29.	Apparel Manufacturing Machine Maintenance Senior Technician	3

SUB SECTOR: Industrial Engineering

No.	Job Title	Level
1.	Industrial Engineering Technician	2
2.	Industrial Engineering Senior Technician	3
3.	Industrial Engineering Assistant Technologist	4
4.	Industrial Engineering Technologist	5

6. CONCLUSION, DISCUSSION AND RECOMMENDATION

Based on the analysis carried out, the textile and apparel sector is a sector that requires a comprehensive development on producing skilled worker. Further analysis for this sector should be done comprehensively, taking into account that all aspects of development and support that can contribute to this industry are included.

Malaysian textile and apparel manufacturers are adopting aggressive productivity measures and developing indigenous brands in order to increase their global competitiveness. Most importantly, Malaysian companies working together with foreign partners are investing in automation and R&D to improve process efficiency. Producers are also adopting flexible manufacturing systems and upgrading the technical competency of their workers.

To remain competitive, this sector needs not only support from government, but also from the financial sector. Without this support, the industry players might face some difficulties to compete with other players from this region. By producing skilled worker for this sector, it will helps the manufacturers run their production with more cost-effective. By doing so, the manufacturer can divert their focus on product development, in term of quality and R&D.

The occupational analysis conducted on the Textile and Apparel sector has led the team to identify 21 job areas under 9 sub sectors. These job areas cover 132 job titles identified in this sector. The hierarchy of each job title is identified and their definition is well defined by the panels. Based on the findings from this occupational analysis, it is suggested that this document should override the existing Occupational Structure of Textile and Apparel Sector (2005).

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22. Approved Adopted NOSS:
    i. K-012-1/2/3 Dressmaker/ Senior Dressmaker/ Supervisor

ii. K-022-4 Fashion and Apparel Executive

iii. K-022-5 Fashion and Apparel Manager

iv. K-030-1/2/3 Industrial Sewing Machine Technician/ Senior Technician/ Supervisor

v. K-040-1/2/3 Industrial Sewing Machine Operator/ Senior Operator/ Supervisor

vi. K-050-2/3 Textile Laboratory Supervisor

vii. K-060-2/3 Industrial Cutting Operator – Textile/ Supervisor

viii. K-070-1/2/3 Apparel Finishing Operator/ Senior Operator/ Supervisor

ix. SS-080-1/2/3 Stamped Batik Maker/ Senior Maker/ Supervisor

x. SS-090-1/2/3 Screen Batik Maker/ Senior Maker/ Supervisor

xi. SS-100-1/2/3 Hand-Drawn Batik Artist/ Senior Artist/ Supervisor

xii. SS-110-4 Batik Production Executive

xiii. SS-120-4 Batik Designer

xiv. SS-130-5 Batik Production Manager

xv. SS-140-1/2/3 Tapestry Weaver/ Senior Weaver/ Supervisor

xvi. SS-140-4 Weaving Designer

xvii. SS-141-2/3 Senior Pua Weaver/ Supervisor

xviii. SS-142-1/2/3 Weaver Songket and Dastar/ Senior Weaver/ Supervisor

xix. SS-142-4 Weaving Industry Executive

xx. SS-142-5 Weaving Industry Manager

xxi. TA-010-1/2/3 Tailor/ Senior Tailor/ Supervisor

Annex 1:
List of Panel Expert for the Development of
Occupational Analysis for Textile & Apparel Sector

List of Panel Expert for the Development of Occupational Analysis for Textile and Apparel Sector

PANEL				
NO.	**NAME**	**DESIGNATION & COMPANY**	**SUB SECTOR**	**EXPERTISE**
1.	Juraini Muslim	Quality Assurance PETZL Manufacturing	• Spinning • Weaving • Apparel Manufacturing	• Yarns Formation & Texturising • Fabric Formation • Apparel Manufacturing
2.	Ismail Bin Abu Hasim	Human Resource Development Manager Malaysian Textile and Apparel Centre (MATAC)	• Apparel Manufacturing	• Apparel Manufacturing
3.	Mohamed Zalman Bin Zainul Ariffin	Group Material Management Manager TAL Apparel Limited	• Dyeing, Printing & Finishing • Apparel Manufacturing	• Textile Laboratory • Quality Assurance • Apparel Manufacturing
4.	Mohd Kamil Mat Hassan	Head of Technical Ara Borgstena Sdn.Bhd.	• Weaving • Knitting • Dyeing, Printing & Finishing • Nonwoven Manufacturing	• Fabric Formation • Warp & Weft Knitting • Textile Laboratory • Tufting • Web Formation • Bonding
5.	Sallehhoudin @ Sallehuddin bin Alaluddin	Chief Operating Officer Jasa Koleksi Sdn. Bhd.	• Apparel Manufacturing	• Apparel Manufacturing
6.	Siti Rohanah Binti Ahmad	Production Designer SRN Supply and Services	• Apparel Manufacturing	• Apparel Manufacturing
7.	Syaiful Azlan Bin Surazi	Plant Manager Recron Malaysia Sdn. Bhd.	• Spinning • Weaving • Knitting • Dyeing, Printing & Finishing	• Yarns Formation & Texturizing • Fabric Formation • Warp & Weft knitting • Dyeing • Printing

8.	Tan Siew Peng	Executive Director Hong In Uniforms Sdn. Bhd.	• Dyeing, Printing & Finishing • Apparel Manufacturing	• Dyeing • Printing • Design • Apparel Manufacturing
9.	Dr. Mohd Rozi Ahmad	Senior Lecturer UiTM	• Spinning • Weaving • Knitting • Dyeing, Printing & Finishing • Nonwoven Manufacturing	• Yarns Formation & Texturising • Fabric Formation • Warp & Weft knitting • Textile Laboratory • Dyeing • Printing • Design • Tufting • Web Formation • Bonding
FACILITATOR				
1.	Ahmad Ramdan M Yusof		Multi Media Synergy Corporation Sdn. Bhd.	
PROOF READER				
1.	Nor Suhaili Mohd Nor		Multi Media Synergy Corporation Sdn. Bhd.	

Annex 2:
Occupational Definition in Textile and Apparel

SPINNING

SPINNING

LEVEL 1

*YARN FORMATION OPERATOR

A YARN FORMATION OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER OR INSTRUCTIONS FROM SUPERIOR, REPORT ANY ABNORMALITY OCCURRED DURING YARN FORMATION PROCESS AND ASSIST YARN FORMATION SENIOR OPERATOR IN ALL WORKS.

A Yarn Formation Operator will be able to:

1. Operate yarn formation machines such as opening, blending, carding, drawing and combing;
2. Adjusts machine controls, such as width or tension guides, to keep operations within specifications;
3. Join/piece broken slivers, rovings and yarns;
4. Replace depleted supply packages with full packages;
5. Transport fibre and yarn to or and from machines;
6. Notify supervisors or mechanics of equipment malfunctions;
7. Clean, oil, and lubricate machines, using air hoses, cleaning solutions, rags, oilcans, and grease guns; and
8. Perform related tasks.

Note:

* Critical job title

SPINNING

LEVEL 1

YARN TEXTURISING OPERATOR

A YARN TEXTURISING OPERATOR IS DESIGNATED TO PERFORM WORKS ON DAILY ROUTINE IN OPERATING THE TEXTURISING MACHINE, THREADING UP THE YARN, CHECKING AND RECTIFYING YARN PATH, TAKING OUT BOBBINS FROM ROTARY PEG TO YARN CARRIER, AND WORKING AS A TEAM WITH OTHER OPERATORS TO ACHIEVE TARGET.

A Yarn Texturising Operator will be able to:

1. Carry out given tasks at designated machines area;
2. Check and rectify yarn path and thread yarn;
3. Carry out manual doffing within given time frame;
4. Take bobbins from rotary peg to yarn carrier;
5. Patrol the operation area and check yarn path;
6. Record yarn breakages;
7. Notify supervisors or mechanics of equipment malfunctions;
8. Clean, oil, and lubricate machines, using air hoses, cleaning solutions, rags, oilcans, and grease guns; and
9. Perform related tasks.

SPINNING

LEVEL 2

*YARN FORMATION SENIOR OPERATOR

A YARN FORMATION SENIOR OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER, PERFORM MACHINE-RUNNING CONDITION IN HIGH EFFICIENCY, PREPARE REPORT OF ANY ABNORMALITY DURING YARN FORMATION PROCESS, PREPARE RECORD OF ALL WORK PERFORMED AND ASSIST YARN FORMATION SUPERVISOR IN ALL WORKS.

A Yarn Formation Senior Operator will be able to:

1. Perform works based on work order;
2. Operate machines for test runs to verify adjustments and to obtain product samples;
3. Operate machine in high efficiency running condition;
4. Adjusts machine controls, such as width or tension guides, to keep operations within specifications;
5. Ensure correct sliver cans, bobbins and yarns at respective machines and process;
6. Prepare report of abnormality to supervisor;
7. Inspect machinery to determine whether repairs are needed;
8. Prepare record of all work performed; and
9. Perform related tasks.

Note:

* Critical job title

SPINNING

LEVEL 2

YARN TEXTURISING SENIOR OPERATOR

A YARN TEXTURISING SENIOR OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER, PERFORM MACHINE-RUNNING CONDITION IN HIGH EFFICIENCY, PREPARE REPORT OF ANY ABNORMALITY DURING YARN TEXTURISING PROCESS, PREPARE RECORD OF ALL WORKS PERFORMED AND ASSIST YARN TEXTURISING SUPERVISOR IN ALL WORKS.

A Yarn Texturising Senior Operator will be able to:

1. Perform works based on work order;
2. Operate machines for test runs to verify adjustments and to obtain product samples;
3. Operate machine in high efficiency running condition;
4. Adjusts machine controls, such as width or tension guides, to keep operations within specifications;
5. Prepare report of abnormality to supervisor;
6. Inspect machinery to determine whether repairs are needed;
7. Prepare record of all work performed;
8. Record production data; and
9. Perform related tasks.

SPINNING

LEVEL 3

***YARN FORMATION SUPERVISOR**

A YARN FORMATION SUPERVISOR IS DESIGNATED TO SUPERVISE AND COORDINATE OTHER OPERATORS IN THE YARN FORMATION ACTIVITIES. THE PERSON ALSO PREPARES WORK SCHEDULE FOR YARN FORMATION OPERATORS AND ASSIST YARN FORMATION EXECUTIVE IN ALL WORKS.

A Yarn Formation Supervisor will be able to:

1. Assign tasks to operators;
2. Supervise other yarn formation operators;
3. Observe operations to detect defects, malfunctions, or supply shortages;
4. Inspect yarn to verify that they meet specifications and to determine whether machine adjustment is needed;
5. Train workers in job duties, safety procedures and company's policies;
6. Train new workers;
7. Resolve work-related problems and prepare and submit progress and other reports;
8. Inspect machinery to determine whether repairs are needed;
9. Request materials and supplies;
10. Perform supervisory functions; and
11. Perform related tasks.

Note:

***** Critical job title

SPINNING

LEVEL 3

YARN TEXTURISING SUPERVISOR

A YARN TEXTURISING SUPERVISOR IS DESIGNATED TO SUPERVISE AND COORDINATE OTHER OPERATORS IN THE YARN TEXTURISING ACTIVITIES. THE PERSON ALSO PREPARES WORK SCHEDULE FOR YARN TEXTURISING OPERATORS AND ASSIST YARN TEXTURISING EXECUTIVE IN ALL WORKS.

A Yarn Texturising Supervisor will be able to:

1. Assign tasks to operators;
2. Supervise other yarn texturising operators;
3. Observe operations to detect defects, malfunctions, or supply shortages;
4. Inspect yarn to verify that they meet specifications and to determine whether machine adjustment is needed;
5. Train workers in job duties, safety procedures and company's policies;
6. Train new workers;
7. Resolve work-related problems and prepare and submit progress and other reports;
8. Inspect machinery to determine whether repairs are needed;
9. Request materials and supplies;
10. Perform supervisory functions; and
11. Perform related tasks.

SPINNING

LEVEL 4

YARN FORMATION EXECUTIVE

A YARN FORMATION EXECUTIVE IS DESIGNATED TO ASSIST PLANT MANAGER ON PLANNING, ORGANISING, DIRECTING, CONTROLLING AND EVALUATING THE YARN FORMATION ACTIVITIES. THE PERSON ALSO SUPERVISES A GROUP OF YARN FORMATION SUPERVISORS AND OPERATORS TO ENSURE THE PRODUCTION TARGET IS MET.

A Yarn Formation Executive will be able to:

1. Oversee daily operation of yarn formation;
2. Prepare work schedules for supervisors and operators;
3. Coordinate activities with other work unit or departments;
4. Coordinate, assign and review the work of other yarn formation supervisors and operators;
5. Train workers in job duties, safety procedures and company's policies;
6. Develop plans and procedures for the yarn formation activities;
7. Improve production procedure if necessary,
8. Control company or department budget;
9. Resolve work-related problems;
10. Perform hiring and training activities;
11. Manage materials and supplies requisition;
12. Prepare various types of report; and
13. Perform related tasks.

SPINNING

LEVEL 4

YARN TEXTURISING EXECUTIVE

A YARN TEXTURISING EXECUTIVE IS DESIGNATED TO ASSIST PLANT MANAGER ON PLANNING, ORGANISING, DIRECTING, CONTROLLING AND EVALUATING THE YARN TEXTURISING ACTIVITIES. THE PERSON ALSO SUPERVISES A GROUP OF YARN TEXTURISING SUPERVISORS AND OPERATORS TO ENSURE THE PRODUCTION TARGET IS MET.

A Yarn Texturising Executive will be able to:

1. Oversee daily operation of yarn texturising;
2. Prepare work schedules for supervisors and operators;
3. Coordinate activities with other work unit or departments;
4. Coordinate, assign and review the work of other yarn texturising supervisors and operators;
5. Train workers in job duties, safety procedures and company's policies;
6. Develop plans and procedures for the yarn texturising activities;
7. Improve production procedure if necessary,
8. Control company or department budget;
9. Resolve work-related problems;
10. Perform hiring and training activities;
11. Manage materials and supplies requisition;
12. Prepare various types of report; and
13. Perform related tasks.

SPINNING

LEVEL 5

****PLANT MANAGER**

A PLANT MANAGER IS DESIGNATED TO PLAN, ORGANISE, DIRECT, CONTROL AND EVALUATE THE OPERATIONS OF TEXTILE AND APPAREL PLANT. THE PERSON ALSO COORDINATES THE WORK PROCESS AND RESOURCES NECESSARY FOR MANUFACTURING ACTIVITIES IN ACCORDANCE WITH COST, QUALITY AND QUANTITY SPECIFICATIONS.

A Plant Manager will be able to:

1. Direct and coordinate production, processing, distribution, and marketing activities;
2. Review processing schedules and production orders to make decisions concerning inventory requirements, staffing requirements, work procedures, and duty assignments, considering budgetary limitations and time constraints;
3. Develop and implement plans to efficiently use materials, labour and equipment to meet production targets;
4. Review operations and confer with technical or administrative staff to resolve production or processing problems;
5. Develop and implement production tracking and quality control systems, analysing production, quality control, maintenance, and other operational reports, to detect production problems;
6. Initiate and coordinate inventory and cost control programs;
7. Direct quality control inspection system and develop production reporting procedures;
8. Hire, supervise and train or oversee training of employees in the use of new

equipment or production techniques;

9. Review raw material quality and give feedback to supplier for any non-conformance;
10. Prepare annual budget and monitor expenditure; and
11. Perform related tasks.

Note:

** Plant Manager L5 has the same skills with other Plant Manager L5 for all sub sectors under Textile & Apparel sector.

WEAVING

WEAVING

LEVEL 1

*WEAVING OPERATOR

A WEAVING OPERATOR IS DESIGNATED TO WORKS ON DAILY ROUTINE OF OPERATING WEAVING MACHINES TO PROCESS YARN INTO FABRIC. THE PERSON ALSO WORKS AS A TEAM TO ACHIEVE PRODUCTION TARGET AND ASSIST WEAVING SENIOR OPERATOR IN ALL WORKS.

A Weaving Operator will be able to:

1. Ensure that the weft yarn supplied and the fabric doffed is according to work order;
2. Ensure that any changing weft/special doffing arrangement is according to special job request;
3. Prepare and submit daily weft yarn status report;
4. Identify defects on fabric and grading accordingly;
5. Record grading information;
6. Carry out monthly weft and fabric stock check;
7. Notify supervisor or repairers of mechanical malfunctions; and
8. Perform related tasks.

Note:

* Critical job title

WEAVING

LEVEL 2

*WEAVING SENIOR OPERATOR

A WEAVING SENIOR OPERATOR IS DESIGNATED TO WORKS ON DAILY ROUTINE OF OPERATING WEAVING MACHINES TO PROCESS YARN INTO FABRIC. THE PERSON ALSO WORKS AS A TEAM TO ACHIEVE PRODUCTION TARGET AND ASSIST WEAVING SUPERVISOR IN ALL WORKS.

A Weaving Senior Operator will be able to:

1. Check and ensure that there are no mixed yarn / lot at the weft yarn storing area;
2. Ensure that the weft yarn supplied to weaving loom is according to fabric code distribution chart;
3. Ensure that the fabric doffed is according to daily work order / doffing schedule;
4. Report any abnormality regarding to weft and fabric to weaving supervisor;
5. Assist Weaving Supervisor in organizing daily job;
6. Repair minor mechanical problems such as broken or defective needles;
7. Notify supervisor or repairers of mechanical malfunctions; and
8. Perform related tasks.

Note:

* Critical job title

WEAVING

LEVEL 3

***WEAVING SUPERVISOR**

A WEAVING SUPERVISOR IS DESIGNATED TO ARRANGE AND COORDINATE WORK FOR OTHER WORKERS IN WEAVING ACTIVITIES. THE PERSON ALSO WORKS AS A TEAM LEADER TO ACHIEVE PRODUCTION TARGET AND ASSIST WEAVING ASSISTANT TECHNOLOGIST IN ALL WORKS.

A Weaving Supervisor will be able to:

1. Check and ensure that there are no mixed yarn at the weft yarn storing area;
2. Operate weaving machine;
3. Manage and ensure that any fabric code and weft yarn changes is according to fabric code distribution order or instruction from weaving section head;
4. Ensure that the weft yarn supplied to weaving loom machine is sufficient;
5. Train workers in job duties, safety procedures and company's policies;
6. Train new workers;
7. Report any abnormality regarding to weft and fabric;
8. Repair minor machinery problems;
9. Perform supervisory functions; and
10. Perform related tasks.

Note:

* Critical job title

WEAVING

LEVEL 4

***WEAVING ASSISTANT TECHNOLOGIST**

A WEAVING ASSISTANT TECHNOLOGIST IS DESIGNATED TO ASSIST WEAVING TECHNOLOGIST TO MANAGE WEAVING WORKS IN TEXTILE PRODUCTION. THE PERSON ALSO PERFORMS LIMITED MANAGEMENT ACTIVITIES.

A Weaving Assistant Technologist will be able to:

1. Read and analyse charts, work orders, production schedules, and other records and reports;
2. Set up and adjust weaving machines;
3. Demonstrate equipment operations and work and safety procedures to new employees. Assign employees to experienced workers for training;
4. Coordinate the activities of employees engaged in the weaving sections;
5. Evaluate, improve and ensure weaving processes/stages (warping, sizing, beaming, leasing-in, draw-in and reed-in) are under control and effectively implemented;
6. Ensure that the materials are sufficient to cover the scheduled preparation production stages;
7. Inspect materials to detect defects;
8. Inspect weaved product quality;
9. Observe work, and monitor machine and other indicators to ensure that technicians conform to production or processing standards;
10. Plan and establish work schedules, assignments, and production sequences to meet production goals;
11. Prepare daily production output and ensure stock rotation occurs effectively;

12. Request materials, supplies, equipment parts, or repair services;
13. Ensure maintenance and servicing schedule is available and carried out accordingly;
14. Enforce safety and sanitation regulations; and
15. Perform related tasks.

Note:

* Critical job title

WEAVING

LEVEL 5

***WEAVING TECHNOLOGIST**

A WEAVING TECHNOLOGIST IS DESIGNATED TO MANAGE WEAVING WORKS IN TEXTILE PRODUCTION. THE PERSON ALSO PERFORM A WIDE RANGE OF MANAGEMENT ACTIVITIES.

A Weaving Technologist will be able to:

1. Define and manage technology roadmaps;
2. Scout new technologies;
3. Study on new knowledge on weaving process;
4. Recommend personnel actions such as hiring and promotions;
5. Demonstrate equipment operations and work and safety procedures to new employees. Assign employees to experienced workers for training;
6. Inspect materials, products, or equipment to detect defects or malfunctions;
7. Plan and establish work schedules, assignments, and product forming sequences to meet production goals;
8. Observe work, and monitor machine and other indicators to ensure that technicians conform to production or processing standards;
9. Approve daily production output and ensure stock rotation occurs effectively;
10. Request materials, supplies, equipment parts, or repair services;
11. Enforce safety and sanitation regulations;
12. Perform managerial functions; and
13. Perform related tasks.

Note:

* Critical job title

KNITTING

KNITTING

LEVEL 1

*WARP KNITTING OPERATOR

A WARP KNITTING OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER OR INSTRUCTIONS FROM SUPERIOR, REPORT ANY ABNORMALITY OCCURRED DURING WARP KNITTING PROCESS AND ASSIST WARP KNITTING SENIOR OPERATOR IN ALL WORKS.

A Warp Knitting Operator will be able to:

1. Perform work based on work order;
2. Install warp beams and unload empty bobbins at creel;
3. Thread yarns into sleys, guides and needles;
4. Join and mend broken yarns;
5. Cut excess thread from knots;
6. Transfer full warp beams to storage area;
7. Report any abnormality to senior operator or supervisor;
8. Repair minor mechanical problems such as broken or defective needles; and
9. Perform related tasks.

Note:

* Critical job title

KNITTING

LEVEL 1

*WEFT KNITTING OPERATOR

A WEFT KNITTING OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER OR INSTRUCTIONS FROM SUPERIOR, REPORT ANY ABNORMALITY OCCURRED DURING WEFT KNITTING PROCESS AND ASSIST WEFT KNITTING SENIOR OPERATOR IN ALL WORKS.

A Weft Knitting Operator will be able to:

1. Perform work based on work order;
2. Install new yarn cones and unload empty cones at knitting creel;
3. Record all needle problems and broken yarns;
4. Cut excess thread from knots;
5. Transfer full weft beams to storage area;
6. Report any abnormality to senior operator or supervisor;
7. Repair minor mechanical problems such as broken or defective needles; and
8. Perform related tasks.

Note:

* Critical job title

KNITTING

LEVEL 2

***WARP KNITTING SENIOR OPERATOR**

A WARP KNITTING SENIOR OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER, PERFORM MACHINE-RUNNING CONDITION IN HIGH EFFICIENCY, PREPARE REPORT OF ANY ABNORMALITY DURING WARP KNITTING PROCESS, PREPARE RECORD OF ALL WORK PERFORMED AND ASSIST WARP KNITTING SUPERVISOR IN ALL WORKS.

A Warp Knitting Senior Operator will be able to:

1. Perform works based on work order;
2. Operate machines for test runs to verify adjustments and to obtain product samples;
3. Operate machine in high efficiency running condition;
4. Ensure designated beams for warp knitting machines;
5. Check on quality of fabric;
6. Prepare report of abnormality to supervisor;
7. Inspect machinery to determine whether repairs are needed;
8. Prepare record of all work performed;
9. Record production data; and
10. Perform related tasks.

Note:

* Critical job title

KNITTING

LEVEL 2

***WEFT KNITTING SENIOR OPERATOR**

A WEFT KNITTING SENIOR OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER, PERFORM MACHINE-RUNNING CONDITION IN HIGH EFFICIENCY, PREPARE REPORT OF ANY ABNORMALITY DURING WEFT KNITTING PROCESS, PREPARE RECORD OF ALL WORK PERFORMED AND ASSIST WEFT KNITTING SUPERVISOR IN ALL WORKS.

A Weft Knitting Senior Operator will be able to:

1. Perform works based on work order;
2. Operate machines for test runs to verify adjustments and to obtain product samples;
3. Operate machine in high efficiency running condition;
4. Ensure designated beams for weft knitting machines;
5. Check on quality of fabric;
6. Prepare report of abnormality to supervisor;
7. Inspect machinery to determine whether repairs are needed;
8. Prepare record of all work performed;
9. Record production data; and
10. Perform related tasks.

Note:

* Critical job title

KNITTING

LEVEL 3

*WARP KNITTING SUPERVISOR

A WARP KNITTING SUPERVISOR IS DESIGNATED TO SUPERVISE AND COORDINATE OTHER OPERATORS IN THE WARP KNITTING ACTIVITIES. THE PERSON ALSO PREPARES WORK SCHEDULE FOR WARP KNITTING OPERATORS AND ASSIST KNITTING EXECUTIVE IN ALL WORKS.

A Warp Knitting Supervisor will be able to:

1. Assign tasks to operators;
2. Supervise other warp knitting operators;
3. Observe operations to detect defects, malfunctions, or supply shortages;
4. Inspect fabrics to verify that they meet specifications and to determine whether machine adjustment is needed;
5. Inspect fabrics for defects, such as holes, yarn breaks and discolorations;
6. Train workers in job duties, safety procedures and company's policies;
7. Train new workers;
8. Resolve work-related problems and prepare and submit progress and other reports;
9. Inspect machinery to determine whether repairs are needed;
10. Request materials and supplies;
11. Perform supervisory functions; and
12. Perform related tasks.

Note:

* Critical job title

KNITTING

LEVEL 3

***WEFT KNITTING SUPERVISOR**

A WEFT KNITTING SUPERVISOR IS DESIGNATED TO SUPERVISE AND COORDINATE OTHER OPERATORS IN THE WEFT KNITTING ACTIVITIES. THE PERSON ALSO PREPARES WORK SCHEDULE FOR WEFT KNITTING OPERATORS AND ASSIST KNITTING EXECUTIVE IN ALL WORKS.

A Weft Knitting Supervisor will be able to:

1. Assign tasks to operators;
2. Supervise other weft knitting operators;
3. Observe operations to detect defects, malfunctions, or supply shortages;
4. Inspect fabrics to verify that they meet specifications and to determine whether machine adjustment is needed;
5. Inspect fabrics for defects, such as holes, yarn breaks and discolorations;
6. Train workers in job duties, safety procedures and company's policies;
7. Train new workers;
8. Resolve work-related problems and prepare and submit progress and other reports;
9. Inspect machinery to determine whether repairs are needed;
10. Request materials and supplies;
11. Perform supervisory functions; and
12. Perform related tasks.

Note:

* Critical job title

KNITTING

LEVEL 4

KNITTING EXECUTIVE

A KNITTING EXECUTIVE IS DESIGNATED TO ASSIST PLANT MANAGER ON PLANNING, ORGANISING, DIRECTING, CONTROLLING AND EVALUATING THE KNITTING ACTIVITIES. THE PERSON ALSO SUPERVISES A GROUP OF WARP AND WEFT KNITTING SUPERVISORS AND OPERATORS TO ENSURE THE PRODUCTION TARGET IS MET.

A Knitting Executive will be able to:

1. Oversee daily operation of knitting activities;
2. Prepare work schedules for supervisors and operators;
3. Coordinate activities with other work unit or departments;
4. Coordinate, assign and review the work of other knitting supervisors and operators;
5. Train workers in job duties, safety procedures and company's policies;
6. Develop plans and procedures for the knitting activities;
7. Improve production procedure if necessary,
8. Control company or department budget;
9. Resolve work-related problems;
10. Perform hiring and training activities;
11. Manage materials and supplies requisition;
12. Prepare various types of report; and
13. Perform related tasks.

DYEING, FINISHING, PRINTING & TEXTILE LABORATORY

DYEING, FINISHING, PRINTING & TEXTILE LABORATORY

LEVEL 1

TEXTILE DYEING OPERATOR

A TEXTILE DYEING OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER OR INSTRUCTIONS FROM SUPERIOR, REPORT ANY ABNORMALITY OCCURRED DURING DYEING PROCESS AND ASSIST TEXTILE DYEING SENIOR OPERATOR IN ALL WORKS.

A Textile Dyeing Operator will be able to:

1. Carry out given tasks at designated working area;
2. Mix dyes or chemicals according to established formulas;
3. Operate dyeing machine or equipment;
4. Carry out dyeing process (such as soft winding, rewinding, scoring, desizing, slitting, spinning, bleaching, mercerising and singeing);
5. Check dyed yarn and fabric quality and quantity;
6. Store finished product at designated area;
7. Notify supervisors or mechanics of equipment malfunctions;
8. Clean equipment or machinery; and
9. Perform related tasks.

DYEING, FINISHING, PRINTING & TEXTILE LABORATORY

LEVEL 1

***TEXTILE FINISHING OPERATOR**

A TEXTILE FINISHING OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER OR INSTRUCTIONS FROM SUPERIOR, REPORT ANY ABNORMALITY OCCURRED DURING FINISHING PROCESS AND ASSIST TEXTILE FINISHING SENIOR OPERATOR IN ALL WORKS.

A Textile Finishing Operator will be able to:

1. Carry out given tasks at designated working area;
2. Prepare and mix chemicals according to established formulas;
3. Operate finishing machine or equipment;
4. Carry out finishing process (such as scutching, drying, stentering, sanding, Continuous Denier Reduction (CDR), chintz and sanforizing);
5. Check finishing quality;
6. Store finished product at designated area;
7. Notify supervisors or mechanics of equipment malfunctions;
8. Clean equipment or machinery; and
9. Perform related tasks.

Note:

* Critical job title

DYEING, FINISHING, PRINTING & TEXTILE LABORATORY

LEVEL 1

***TEXTILE PRINTING OPERATOR**

A TEXTILE PINTING OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER OR INSTRUCTIONS FROM SUPERIOR, REPORT ANY ABNORMALITY OCCURRED DURING PRINTING PROCESS AND ASSIST TEXTILE PRINTING SENIOR OPERATOR IN ALL WORKS.

A Textile Printing Operator will be able to:

1. Carry out given tasks at designated working area;
2. Interpret textile design;
3. Prepare printing works based on the approved design;
4. Operate curing machine;
5. Obtain dyestuff substance;
6. Check printing quality;
7. Store finished product at designated area;
8. Notify supervisors or mechanics of equipment malfunctions;
9. Clean equipment or machinery; and
10. Perform related tasks.

Note:

* Critical job title

DYEING, FINISHING, PRINTING & TEXTILE LABORATORY

LEVEL 2

TEXTILE DYEING SENIOR OPERATOR

A TEXTILE DYEING SENIOR OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER AND FABRIC CODE ARRANGEMENT. THE PERSON ALSO PREPARES REPORT OF ANY ABNORMALITY DURING TEXTILE DYEING PROCESS, PREPARE RECORD OF ALL WORK PERFORMED AND ASSIST TEXTILE DYEING SUPERVISOR IN ALL WORKS.

A Textile Dyeing Senior Operator will be able to:

1. Perform works based on work order;
2. Set dyeing equipment;
3. Carry out dyeing process (such as soft winding, rewinding, scoring, desizing, slitting, spinning, bleaching, mercerising and singeing);
4. Check on quality of dyed yarn and fabric;
5. Prepare report of abnormality to supervisor;
6. Inspect equipment to determine whether repairs are needed;
7. Prepare record of all work performed;
8. Record production data; and
9. Perform related tasks.

DYEING, FINISHING, PRINTING & TEXTILE LABORATORY

LEVEL 2

***TEXTILE FINISHING SENIOR OPERATOR**

A TEXTILE FINISHING SENIOR OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER AND FABRIC CODE ARRANGEMENT. THE PERSON ALSO PREPARE REPORT OF ANY ABNORMALITY DURING TEXTILE FINISHING PROCESS, PREPARE RECORD OF ALL WORK PERFORMED AND ASSIST TEXTILE FINISHING SUPERVISOR IN ALL WORKS.

A Textile Finishing Senior Operator will be able to:

1. Perform works based on work order;
2. Set finishing equipment;
3. Carry out finishing process (such as scutching, drying, stentering, sanding, Continuous Denier Reduction (CDR), chintz and sanforizing);
4. Check on quality of finishing;
5. Prepare report of abnormality to supervisor;
6. Inspect equipment to determine whether repairs are needed;
7. Prepare record of all work performed;
8. Record production data; and
9. Perform related tasks.

Note:

* Critical job title

DYEING, FINISHING, PRINTING & TEXTILE LABORATORY

LEVEL 2

***TEXTILE PRINTING SENIOR OPERATOR**

A TEXTILE FINISHING SENIOR OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER AND TEXTILE PRINTING ARRANGEMENT. THE PERSON ALSO PREPARE REPORT OF ANY ABNORMALITY DURING TEXTILE PRINTING PROCESS, PREPARE RECORD OF ALL WORK PERFORMED AND ASSIST TEXTILE PRINTING SUPERVISOR IN ALL WORKS.

A Textile Printing Senior Operator will be able to:

1. Perform works based on work order;
2. Set printing machine and equipment;
3. Carry out finishing process;
4. Prepare and mix dyestuff substance;
5. Check on quality of finishing;
6. Prepare report of abnormality to supervisor;
7. Inspect equipment to determine whether repairs are needed;
8. Prepare record of all work performed;
9. Record production data; and
10. Perform related tasks.

Note:

* Critical job title

DYEING, FINISHING, PRINTING & TEXTILE LABORATORY

LEVEL 2

TEXTILE LABORATORY JUNIOR ASSISTANT

A TEXTILE LABORATORY JUNIOR ASSISTANT IS DESIGNATED TO PERFORM TESTING AND COLOUR MATCHING PROCESS ON TEXTILE AND RAW MATERIAL ACCORDING TO PRODUCT SPECIFICATION, CHARACTERISTIC AND QUALITY REQUIREMENT. THE PERSON ALSO PREPARE RECORD OF ALL WORK PERFORMED AND ASSIST TEXTILE LABORATORY ASSISTANT IN ALL WORKS.

A Textile Laboratory Junior Assistant will be able to:

1. Perform works based on work order;
2. Carry out various laboratories testing on textile and raw materials;
3. Carry out pre-treatment laboratory trial;
4. Carry out dyeing laboratory trial;
5. Carry out printing laboratory trial;
6. Carry out finishing laboratory trial;
7. Test and match various colours on textile;
8. Inspect equipment to determine whether repairs are needed;
9. Prepare record of all work performed;
10. Record production data; and
11. Perform related tasks.

DYEING, FINISHING, PRINTING & TEXTILE LABORATORY

LEVEL 3

TEXTILE DYEING SUPERVISOR

A TEXTILE DYEING SUPERVISOR IS DESIGNATED TO SUPERVISE AND COORDINATE OTHER OPERATORS IN THE TEXTILE DYEING ACTIVITIES. THE PERSON ALSO PREPARES WORK SCHEDULE FOR TEXTILE DYEING OPERATORS.

A Textile Dyeing Supervisor will be able to:

1. Assign tasks to operators;
2. Supervise other textile dyeing operators;
3. Adjust production equipment/machinery setup;
4. Check on quality of dyed yarn and fabric;
5. Examine products for defects;
6. Train workers in job duties, safety procedures and company's policies;
7. Train new workers;
8. Resolve work-related problems and prepare and submit progress and other reports;
9. Inspect equipment to determine whether repairs are needed;
10. Request materials and supplies;
11. Perform supervisory functions; and
12. Perform related tasks.

DYEING, FINISHING, PRINTING & TEXTILE LABORATORY

LEVEL 3

***TEXTILE FINISHING SUPERVISOR**

A TEXTILE FINISHING SUPERVISOR IS DESIGNATED TO SUPERVISE AND COORDINATE OTHER OPERATORS IN THE TEXTILE FINISHING ACTIVITIES. THE PERSON ALSO PREPARES WORK SCHEDULE FOR TEXTILE FINISHING OPERATORS AND ASSIST TEXTILE FINISHING EXECUTIVE IN ALL WORKS.

A Textile Finishing Supervisor will be able to:

1. Assign tasks to operators;
2. Supervise other textile finishing operators;
3. Observe operations to detect defects, malfunctions, or supply shortages;
4. Inspect fabrics to verify that they meet specifications and to determine whether equipment adjustment is needed;
5. Train workers in job duties, safety procedures and company's policies;
6. Train new workers;
7. Resolve work-related problems and prepare and submit progress and other reports;
8. Inspect equipment to determine whether repairs are needed;
9. Request materials and supplies;
10. Perform supervisory functions; and
11. Perform related tasks.

Note:

* Critical job title

DYEING, FINISHING, PRINTING & TEXTILE LABORATORY

LEVEL 3

***TEXTILE PRINTING SUPERVISOR**

A TEXTILE PRINTING SUPERVISOR IS DESIGNATED TO SUPERVISE AND COORDINATE OTHER OPERATORS IN THE TEXTILE PRINTING ACTIVITIES. THE PERSON ALSO PREPARES WORK SCHEDULE FOR TEXTILE PRINTING OPERATORS AND ASSIST TEXTILE PRINTING EXECUTIVE IN ALL WORKS.

A Textile Printing Supervisor will be able to:

1. Assign tasks to operators;
2. Supervise other textile printing operators;
3. Observe operations to detect defects, malfunctions, or supply shortages;
4. Inspect printed product to verify that they meet specifications and to determine whether machine or equipment adjustment is needed;
5. Train workers in job duties, safety procedures and company's policies;
6. Train new workers;
7. Resolve work-related problems and prepare and submit progress and other reports;
8. Inspect machinery and equipment to determine whether repairs are needed;
9. Request materials and supplies;
10. Perform supervisory functions; and
11. Perform related tasks.

Note:

* Critical job title

DYEING, FINISHING, PRINTING & TEXTILE LABORATORY

LEVEL 3

TEXTILE LABORATORY ASSISTANT

A TEXTILE LABORATORY ASSISTANT IS DESIGNATED TO ARRANGE AND COORDINATE WORK FOR OTHER WORKERS IN TEXTILE LABORATORY ACTIVITIES. THE PERSON ALSO WORKS AS A TEAM LEADER TO ACHIEVE PRODUCTION TARGET AND ASSIST TEXTILE LABORATORY SENIOR ASSISTANT IN ALL WORKS.

A Textile Laboratory Assistant will be able to:

1. Supervise various laboratories testing on textile and raw materials;
2. Verify pre-treatment laboratory trial;
3. Verify dyeing laboratory trial;
4. Verify printing laboratory trial;
5. Verify finishing laboratory trial;
6. Train workers in job duties, safety procedures and company's policies;
7. Train new workers;
8. Perform supervisory functions; and
9. Perform related tasks.

DYEING, FINISHING, PRINTING & TEXTILE LABORATORY

LEVEL 4

TEXTILE DYEING EXECUTIVE

A TEXTILE DYEING EXECUTIVE IS DESIGNATED TO ASSIST PLANT MANAGER ON PLANNING, ORGANISING, DIRECTING, CONTROLLING AND EVALUATING THE TEXTILE DYEING ACTIVITIES. THE PERSON ALSO SUPERVISES A GROUP OF TEXTILE DYEING SUPERVISORS AND OPERATORS TO ENSURE THE PRODUCTION TARGET IS MET.

A Textile Dyeing Executive will be able to:

1. Oversee daily operation of textile dyeing activities;
2. Prepare work schedules for supervisors and operators;
3. Coordinate activities with other work unit or departments;
4. Coordinate, assign and review the work of other textile dyeing supervisors and operators;
5. Train workers in job duties, safety procedures and company's policies;
6. Develop plans and procedures for the textile dyeing activities;
7. Improve production procedure if necessary,
8. Control company or department budget;
9. Resolve work-related problems;
10. Perform hiring and training activities;
11. Manage materials and supplies requisition;
12. Prepare various types of report; and
13. Perform related tasks.

DYEING, FINISHING, PRINTING & TEXTILE LABORATORY

LEVEL 4

TEXTILE FINISHING EXECUTIVE

A TEXTILE FINISHING EXECUTIVE IS DESIGNATED TO ASSIST PLANT MANAGER ON PLANNING, ORGANISING, DIRECTING, CONTROLLING AND EVALUATING THE TEXTILE FINISHING ACTIVITIES. THE PERSON ALSO SUPERVISES A GROUP OF TEXTILE FINISHING SUPERVISORS AND OPERATORS TO ENSURE THE PRODUCTION TARGET IS MET.

A Textile Finishing Executive will be able to:

1. Oversee daily operation of textile finishing activities;
2. Prepare work schedules for supervisors and operators;
3. Coordinate activities with other work unit or departments;
4. Coordinate, assign and review the work of other textile finishing supervisors and operators;
5. Train workers in job duties, safety procedures and company's policies;
6. Develop plans and procedures for the textile finishing activities;
7. Improve production procedure if necessary,
8. Control company or department budget;
9. Resolve work-related problems;
10. Perform hiring and training activities;
11. Manage materials and supplies requisition;
12. Prepare various types of report; and
13. Perform related tasks.

DYEING, FINISHING, PRINTING & TEXTILE LABORATORY

LEVEL 4

TEXTILE PRINTING EXECUTIVE

A TEXTILE PRINTING EXECUTIVE IS DESIGNATED TO ASSIST PLANT MANAGER ON PLANNING, ORGANISING, DIRECTING, CONTROLLING AND EVALUATING THE TEXTILE PRINTING ACTIVITIES. THE PERSON ALSO SUPERVISES A GROUP OF TEXTILE PRINTING SUPERVISORS AND OPERATORS TO ENSURE THE PRODUCTION TARGET IS MET.

A Textile Printing Executive will be able to:

1. Oversee daily operation of textile printing activities;
2. Prepare work schedules for supervisors and operators;
3. Coordinate activities with other work unit or departments;
4. Coordinate, assign and review the work of other textile printing supervisors and operators;
5. Train workers in job duties, safety procedures and company's policies;
6. Develop plans and procedures for the textile printing activities;
7. Improve production procedure if necessary,
8. Control company or department budget;
9. Resolve work-related problems;
10. Perform hiring and training activities;
11. Manage materials and supplies requisition;
12. Prepare various types of report; and
13. Perform related tasks.

DYEING, FINISHING, PRINTING & TEXTILE LABORATORY

LEVEL 4

TEXTILE LABORATORY SENIOR ASSISTANT

A TEXTILE LABORATORY SENIOR ASSISTANT IS DESIGNATED TO ASSIST TEXTILE LABORATORY OFFICER TO MANAGE TEXTILE LABORATORY WORKS IN TEXTILE PRODUCTION. THE PERSON ALSO PERFORM LIMITED MANAGEMENT ACTIVITIES.

A Textile Laboratory Senior Assistant will be able to:

1. Read and analyse charts, work orders, production schedules, and other records and reports;
2. Coordinates and approves various laboratories testing on textile and raw materials;
3. Coordinates and approves pre-treatment laboratory trial;
4. Coordinates and approves dyeing laboratory trial;
5. Coordinates and approves printing laboratory trial;
6. Coordinates and approves finishing laboratory trial;
7. Demonstrate testing, work and safety procedures to new employees. Assign employees to experienced workers for training;
8. Plan and establish work schedules, assignments and testing;
9. Request materials, supplies, equipment parts, or repair services;
10. Ensure maintenance and servicing schedule is available and carried out accordingly;
11. Enforce safety and sanitation regulations; and
12. Perform related tasks.

DYEING, FINISHING, PRINTING & TEXTILE LABORATORY

LEVEL 5

TEXTILE LABORATORY OFFICER

A TEXTILE LABORATORY OFFICER IS DESIGNATED TO MANAGE TEXTILE LABORATORY WORKS IN TEXTILE PRODUCTION. THE PERSON ALSO PERFORMS A WIDE RANGE OF MANAGEMENT ACTIVITIES.

A Textile Laboratory Officer will be able to:

1. Define and manage technology roadmaps;
2. Scout new technologies;
3. Communicates with other departments;
4. Conduct Training Needs Analysis at organizational level;
5. Develop, manage and promote training;
6. Manage changes and influence workplace culture;
7. Supervise, support and develop subordinates;
8. Exercise leadership at workplace;
9. Plan, organize and develop quality improvement activities.
10. Recommend personnel actions such as hiring and promotions;
11. Demonstrate testing, work and safety procedures to new employees. Assign employees to experienced workers for training;
12. Plan and establish work schedules, assignments and testing;
13. Request materials, supplies, equipment parts, or repair services;
14. Enforce safety and sanitation regulations;
15. Perform managerial functions; and
16. Perform related tasks.

NONWOVEN MANUFACTURING

NONWOVEN MANUFACTURING

LEVEL 1

TUFTING OPERATOR

A TUFTING OPERATOR IS DESIGNATED TO PERFORM A WORK ON DAILY ROUTINE OF OPERATING THE TUFTING MACHINE, REPORT ANY ABNORMALITY OCCURRED DURING TUFTING PROCESS AND ASSIST TUFTING SENIOR OPERATOR IN ALL WORKS.

A Tufting Operator will be able to:

1. Carry out given tasks at designated machines area;
2. Thread yarns through guides and needles;
3. Load and unload yarns into dyeing and drying machines;
4. Load bobbins onto machine creel according to colour and design specifications;
5. Join or tie broken yarns;
6. Repair missing tufting product piles during production;
7. Patrol the operation area and check for broken/missing yarns;
8. Notify supervisors or mechanics of equipment malfunctions;
9. Repair minor mechanical problems such as broken or defective needles; and
10. Perform related tasks.

NONWOVEN MANUFACTURING

LEVEL 1

WEB FORMATION OPERATOR

A WEB FORMATION OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER OR INSTRUCTIONS FROM SUPERIOR, REPORT ANY ABNORMALITY OCCURRED DURING BONDING PROCESS AND ASSIST WEB FORMATION SENIOR OPERATOR IN ALL WORKS.

A Web Formation Operator will be able to:

1. Carry out given tasks at designated machines area;
2. Carry out web formation process, which are carding, air-laid, wet-laid, spunbond and melt blown;
3. Operate web formation machine based on product specifications;
4. Store finished product at designated area;
5. Notify supervisors or mechanics of equipment malfunctions;
6. Repair minor mechanical problems such as broken or defective needles and wires;
7. Clean, oil, and lubricate machines, using air hoses, cleaning solutions, rags, oilcans, and grease guns; and
8. Perform related tasks.

NONWOVEN MANUFACTURING

LEVEL 1

BONDING OPERATOR

A BONDING OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER OR INSTRUCTIONS FROM SUPERIOR, REPORT ANY ABNORMALITY OCCURRED DURING BONDING PROCESS AND ASSIST BONDING SENIOR OPERATOR IN ALL WORKS.

A Bonding Operator will be able to:

1. Carry out given tasks at designated machines area;
2. Carry out bonding process, which are mechanical bonding, thermal bonding and chemical bonding;
3. Operate bonding machine based on product specifications;
4. Store finished product at designated area;
5. Notify supervisors or mechanics of equipment malfunctions;
6. Repair minor mechanical problems such as broken or defective needles;
7. Clean, oil, and lubricate machines, using air hoses, cleaning solutions, rags, oilcans, and grease guns; and
8. Perform related tasks.

NONWOVEN MANUFACTURING

LEVEL 2

TUFTING SENIOR OPERATOR

A TUFTING SENIOR OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER, PERFORM MACHINE-RUNNING CONDITION IN HIGH EFFICIENCY, PREPARE REPORT OF ANY ABNORMALITY DURING TUFTING PROCESS, PREPARES RECORD OF ALL WORK PERFORMED AND ASSIST TUFTING SUPERVISOR IN ALL WORKS.

A Tufting Senior Operator will be able to:

1. Perform works based on work order;
2. Operate machines for test runs to verify adjustments and to obtain product samples;
3. Operate machine in high efficiency running condition;
4. Ensure correct yarns are loaded for tufting;
5. Adjusts machine controls, such as width or tension guides, to keep operations within specifications;
6. Prepare report of abnormality to supervisor;
7. Inspect machinery to determine whether repairs are needed;
8. Prepare record of all work performed;
9. Record production data; and
10. Perform related tasks.

NONWOVEN MANUFACTURING

LEVEL 2

WEB FORMATION SENIOR OPERATOR

A WEB FORMATION SENIOR OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER, PERFORM MACHINE-RUNNING CONDITION IN HIGH EFFICIENCY, PREPARE REPORT OF ANY ABNORMALITY DURING WEB FORMATION PROCESS, PREPARE RECORD OF ALL WORK PERFORMED AND ASSIST WEB FORMATION SUPERVISOR IN ALL WORKS.

A Web Formation Senior Operator will be able to:

1. Perform works based on work order;
2. Operate machines for test runs to verify adjustments and to obtain product samples;
3. Operate machine in high efficiency running condition;
4. Ensure correct materials are loaded for web formation process;
5. Adjusts machine controls, such as width or tension guides, to keep operations within specifications;
6. Prepare report of abnormality to supervisor;
7. Inspect machinery to determine whether repairs are needed;
8. Prepare record of all work performed;
9. Record production data; and
10. Perform related tasks.

NONWOVEN MANUFACTURING

LEVEL 2

BONDING SENIOR OPERATOR

A BONDING SENIOR OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER, PERFORMS MACHINE-RUNNING CONDITION IN HIGH EFFICIENCY, PREPARES REPORT OF ANY ABNORMALITY DURING BONDING PROCESS, PREPARES RECORD OF ALL WORK PERFORMED AND ASSIST BONDING SUPERVISOR IN ALL WORKS.

A Bonding Senior Operator will be able to:

1. Perform works based on work order;
2. Operate machines for test runs to verify adjustments and to obtain product samples;
3. Operate machine in high efficiency running condition;
4. Ensure correct materials are loaded for bonding process;
5. Adjusts machine controls, such as width or tension guides, to keep operations within specifications;
6. Prepare report of abnormality to supervisor;
7. Inspect machinery to determine whether repairs are needed;
8. Prepare record of all work performed;
9. Record production data; and
10. Perform related tasks.

NONWOVEN MANUFACTURING

LEVEL 3

TUFTING SUPERVISOR

A TUFTING SUPERVISOR IS DESIGNATED TO SUPERVISE AND COORDINATE OTHER OPERATORS IN THE TUFTING ACTIVITIES. THE PERSON ALSO PREPARES WORK SCHEDULE FOR TUFTING OPERATORS AND ASSIST TUFTING EXECUTIVE IN ALL WORKS.

A Tufting Supervisor will be able to:

1. Assign tasks to operators;
2. Supervise other tufting operators;
3. Observe operations to detect defects, malfunctions, or supply shortages;
4. Inspect tufted products to verify that they meet specifications and to determine whether machine adjustment is needed;
5. Inspect tufted products for defects, such as holes, yarn breaks and discolorations;
6. Train workers in job duties, safety procedures and company's policies;
7. Train new workers;
8. Resolve work-related problems and prepare and submit progress and other reports;
9. Inspect machinery to determine whether repairs are needed;
10. Request materials and supplies;
11. Perform supervisory functions; and
12. Perform related tasks.

NONWOVEN MANUFACTURING

LEVEL 3

WEB FORMATION SUPERVISOR

A WEB FORMATION SUPERVISOR IS DESIGNATED TO SUPERVISE AND COORDINATE OTHER OPERATORS IN THE WEB FORMATION ACTIVITIES. THE PERSON ALSO PREPARES WORK SCHEDULE FOR WEB FORMATION OPERATORS AND ASSIST WEB FORMATION EXECUTIVE IN ALL WORKS.

A Web Formation Supervisor will be able to:

1. Assign tasks to operators;
2. Supervise other web formation operators;
3. Observe operations to detect defects, malfunctions, or supply shortages;
4. Inspect finished products to verify that they meet specifications and to determine whether machine adjustment is needed;
5. Inspect finished products for defects, such as holes, yarn breaks and discolorations;
6. Train workers in job duties, safety procedures and company's policies;
7. Train new workers;
8. Resolve work-related problems and prepare and submit progress and other reports;
9. Inspect machinery to determine whether repairs are needed;
10. Request materials and supplies;
11. Perform supervisory functions; and
12. Perform related tasks.

NONWOVEN MANUFACTURING

LEVEL 3

BONDING SUPERVISOR

A BONDING SUPERVISOR IS DESIGNATED TO SUPERVISE AND COORDINATE OTHER OPERATORS IN THE BONDING ACTIVITIES. THE PERSON ALSO PREPARES WORK SCHEDULE FOR BONDING OPERATORS AND ASSIST BONDING EXECUTIVE IN ALL WORKS.

A Bonding Supervisor will be able to:

1. Assign tasks to operators;
2. Supervise other bonding operators;
3. Observe operations to detect defects, malfunctions, or supply shortages;
4. Inspect finished products to verify that they meet specifications and to determine whether machine adjustment is needed;
5. Inspect finished products for defects, such as holes, yarn breaks and discolorations;
6. Train workers in job duties, safety procedures and company's policies;
7. Train new workers;
8. Resolve work-related problems and prepare and submit progress and other reports;
9. Inspect machinery to determine whether repairs are needed;
10. Request materials and supplies;
11. Perform supervisory functions; and
12. Perform related tasks.

NONWOVEN MANUFACTURING

LEVEL 4

TUFTING EXECUTIVE

A TUFTING EXECUTIVE IS DESIGNATED TO ASSIST PLANT MANAGER ON PLANNING, ORGANISING, DIRECTING, CONTROLLING AND EVALUATING THE TUFTING ACTIVITIES. THE PERSON ALSO SUPERVISES A GROUP OF TUFTING SUPERVISORS AND OPERATORS TO ENSURE THE PRODUCTION TARGET IS MET.

A Tufting Executive will be able to:

1. Oversee daily operation of tufting activities;
2. Prepare work schedules for supervisors and operators;
3. Coordinate activities with other work unit or departments;
4. Coordinate, assign and review the work of other tufting supervisors and operators;
5. Train workers in job duties, safety procedures and company's policies;
6. Develop plans and procedures for the tufting activities;
7. Improve production procedure if necessary,
8. Control company or department budget;
9. Resolve work-related problems;
10. Perform hiring and training activities;
11. Manage materials and supplies requisition;
12. Prepare various types of report; and
13. Perform related tasks.

NONWOVEN MANUFACTURING

LEVEL 4

WEB FORMATION EXECUTIVE

A WEB FORMATION EXECUTIVE IS DESIGNATED TO ASSIST PLANT MANAGER ON PLANNING, ORGANISING, DIRECTING, CONTROLLING AND EVALUATING THE WEB FORMATION ACTIVITIES. THE PERSON ALSO SUPERVISES A GROUP OF WEB FORMATION SUPERVISORS AND OPERATORS TO ENSURE THE PRODUCTION TARGET IS MET.

A Web Formation Executive will be able to:

1. Oversee daily operation of web formation activities;
2. Prepare work schedules for supervisors and operators;
3. Coordinate activities with other work unit or departments;
4. Coordinate, assign and review the work of other web formation supervisors and operators;
5. Train workers in job duties, safety procedures and company's policies;
6. Develop plans and procedures for the web formation activities;
7. Improve production procedure if necessary,
8. Control company or department budget;
9. Resolve work-related problems;
10. Perform hiring and training activities;
11. Manage materials and supplies requisition;
12. Prepare various types of report; and
13. Perform related tasks.

NONWOVEN MANUFACTURING

LEVEL 4

BONDING EXECUTIVE

A BONDING EXECUTIVE IS DESIGNATED TO ASSIST PLANT MANAGER ON PLANNING, ORGANISING, DIRECTING, CONTROLLING AND EVALUATING THE BONDING ACTIVITIES. THE PERSON ALSO SUPERVISES A GROUP OF BONDING SUPERVISORS AND OPERATORS TO ENSURE THE PRODUCTION TARGET IS MET.

A Bonding Executive will be able to:

1. Oversee daily operation of bonding activities;
2. Prepare work schedules for supervisors and operators;
3. Coordinate activities with other work unit or departments;
4. Coordinate, assign and review the work of other bonding supervisors and operators;
5. Train workers in job duties, safety procedures and company's policies;
6. Develop plans and procedures for the bonding activities;
7. Improve production procedure if necessary,
8. Control company or department budget;
9. Resolve work-related problems;
10. Perform hiring and training activities;
11. Manage materials and supplies requisition;
12. Prepare various types of report; and
13. Perform related tasks.

TEXTILE HANDICRAFT

TEXTILE HANDICRAFT

LEVEL 1

*WEAVER SONGKET

A WEAVER SONGKET IS DESIGNATED TO PERFORM WEAVING EQUIPMENT PREPARATION, PERFORM WEAVING RAW MATERIAL PREPARATION, PERFORM YARN DYEING ACTIVITIES AND PERFORM SONGKET DESIGN PREPARATION.

A Weaver Songket will be able to:

1. Carry out *menerai* equipment preparation;
2. Carry out *menyampak* equipment preparation;
3. Carry out winding equipment preparation;
4. Carry out *menganing* equipment preparation;
5. Carry out weaving yarn preparation;
6. Carry out thread colouring agent preparation;
7. Carry out dye colour and chemical mixing;
8. Carry out colour dye testing;
9. Carry out "*menganing*" process;
10. Carry out "*menerai*" process;
11. Carry out *menyampak* process;
12. Carry out songket sketching;
13. Carry out *'menyungkit'* process; and
14. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS SS-142-1 Weaver Songket and Dastar

TEXTILE HANDICRAFT

LEVEL 1

***WEAVER DASTAR**

A WEAVER DASTAR IS DESIGNATED TO PERFORM WEAVING EQUIPMENT PREPARATION, PERFORM WEAVING RAW MATERIAL PREPARATION, PERFORM YARN DYEING ACTIVITIES AND PERFORM DASTAR DESIGN PREPARATION.

A Weaver Dastar will be able to:

1. Carry out *menerai* equipment preparation;
2. Carry out *menyampak* equipment preparation;
3. Carry out winding equipment preparation;
4. Carry out *menganing* equipment preparation;
5. Carry out weaving yarn preparation;
6. Carry out thread colouring agent preparation;
7. Carry out dye colour and chemical mixing;
8. Carry out colour dye testing;
9. Carry out "*menganing*" process;
10. Carry out "*menerai*" process;
11. Carry out *menyampak* process;
12. Carry out dastar sketching; and
13. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS SS-142-1 Weaver Songket and Dastar

TEXTILE HANDICRAFT

LEVEL 1

***TAPESTRY WEAVER**

A TAPESTRY WEAVER IS DESIGNATED TO PERFORM WEAVING EQUIPMENT PREPARATION, PERFORM WEAVING RAW MATERIAL PREPARATION, PERFORM YARN DYEING ACTIVITIES, PERFORM PRE-WEAVING PREPARATION AND PERFORM TAPESTRY DESIGN PREPARATION.

A Tapestry Weaver will be able to:

1. Carry out *menerai* equipment preparation;
2. Carry out weaving equipment preparation;
3. Carry out weighing equipment inspection;
4. Carry out *menyampak* equipment preparation;
5. Carry out winding equipment preparation;
6. Carry out *menganing* equipment preparation;
7. Carry out weaving yarn preparation;
8. Carry out thread colouring agent preparation;
9. Carry out dye colour and chemical mixing;
10. Carry out colour dye testing;
11. Carry out "*menganing*" process;
12. Carry out "*menerai*" process;
13. Carry out yarn knitting/(*menyampak*) process;
14. Carry out tapestry design information compilation;
15. Carry out tapestry sketching; and
16. Perform related tasks.

Notes:

***** Critical job title

- Referring to existing NOSS SS-140-1 Tapestry Weaver

TEXTILE HANDICRAFT

LEVEL 1

*STAMPED BATIK MAKER

A STAMPED BATIK MAKER IS DESIGNATED TO PERFORM SCREEN BATIK FABRIC PREPARATION, PERFORM SCREEN BATIK EQUIPMENT PREPARATION AND CONDUCT SCREEN BATIK FINISHING.

A Stamped Batik Maker will be able to:

1. Carry out white fabric cutting;
2. Carry out white fabric washing;
3. Carry out white fabric drying;
4. Store white fabric;
5. Prepare stamped printing table;
6. Prepare wax melting stove;
7. Carry out stamping block set selection;
8. Carry out stamped batik background colouring;
9. Carry out colour fixation;
10. Remove stamped batik fabric wax;
11. Carry out stamped batik washing;
12. Carry out stamped batik drying;
13. Carry out stamped batik packaging; and
14. Perform related tasks.

Notes:

* Critical job title

• Referring to existing NOSS SS-080-1 Stamped Batik Maker

TEXTILE HANDICRAFT

LEVEL 1

***SCREEN BATIK MAKER**

A SCREEN BATIK MAKER IS DESIGNATED TO PERFORM SCREEN BATIK FABRIC PREPARATION, PERFORM SCREEN BATIK EQUIPMENT PREPARATION AND CONDUCT SCREEN BATIK FINISHING.

A Screen Batik Maker will be able to

1. Carry out white fabric cutting;
2. Carry out white fabric washing;
3. Carry out white fabric drying;
4. Store White Fabric;
5. Prepare screen batik cleaning set;
6. Prepare screen batik storage shelf;
7. Carry out colour fixation;
8. Remove screen batik starch;
9. Carry out screen batik washing;
10. Carry out screen batik drying;
11. Carry out screen batik packaging; and
12. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS SS-090-1 Screen Batik Maker

TEXTILE HANDICRAFT

LEVEL 1

*HAND-DRAWN BATIK MAKER

A HAND-DRAWN BATIK MAKER IS DESIGNATED TO PERFORM HAND-DRAWN BATIK FABRIC PREPARATION, PERFORM HAND-DRAWN BATIK EQUIPMENT PREPARATION, PERFORM HAND-DRAWN BATIK FABRIC COLOURING AND CONDUCT HAND-DRAWN BATIK FINISHING.

A Hand-Drawn Batik Maker will be able to

1. Carry out white fabric washing;
2. Carry out white fabric drying;
3. Store white fabric;
4. Carry out white fabric cutting;
5. Prepare wax melting stove;
6. Prepare hand-drawn batik stretcher frame;
7. Prepare hand-drawn batik drawing set;
8. Carry out background colouring;
9. Carry out colour fixation;
10. Remove hand-drawn batik fabric wax;
11. Carry out hand-drawn batik washing;
12. Carry out hand-drawn batik fabric drying;
13. Carry out hand-drawn batik packaging; and
14. Perform related tasks.

Notes:

* Critical job title

• Referring to existing NOSS SS-100-1 Hand-Drawn Batik Artist

TEXTILE HANDICRAFT

LEVEL 2

***SENIOR WEAVER SONGKET**

A SENIOR WEAVER SONGKET IS DESIGNATED TO PERFORM YARN DYEING ACTIVITIES, PREPARE LOSENG YARN, AND PREPARE SONGKET DESIGN.

A Senior Weaver Songket will be able to:

1. Handle raw materials;
2. Handle weaving equipment;
3. Carry out *menganing* process;
4. Carry out *mengarat* process;
5. Sketch songket design;
6. Prepare design motif;
7. Conduct trial-run;
8. Carry out songket weaving;
9. Perform yarn dyeing;
10. Prepare loseng thread;
11. Control songket production; and
12. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS SS-142-2 Senior Weaver Songket and Dastar

TEXTILE HANDICRAFT

LEVEL 2

***SENIOR WEAVER DASTAR**

A SENIOR WEAVER DASTAR IS DESIGNATED TO PERFORM YARN DYEING ACTIVITIES, PREPARE LOSENG YARN, AND PREPARE DASTAR DESIGN.

A Senior Weaver Dastar will be able to:

1. Handle raw materials;
2. Handle weaving equipment;
3. Carry out *menganing* process;
4. Carry out *mengarat* process;
5. Sketch dastar design;
6. Prepare design motif;
7. Conduct trial-run;
8. Carry out dastar weaving;
9. Perform yarn dyeing;
10. Prepare loseng thread;
11. Control dastar production; and
12. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS SS-142-2 Senior Weaver Songket and Dastar

TEXTILE HANDICRAFT

LEVEL 2

***SENIOR PUA WEAVER**

A SENIOR PUA WEAVER IS DESIGNATED TO PERFORM PUA WEAVING EQUIPMENT PREPARATION, PUA YARN DYEING ACTIVITIES, PUA DESIGN WORKS, PUA WEAVING SAMPLING WORKS, PUA PRE-WEAVING WORKS, AND PUA WEAVING PRODUCTION.

A Senior Pua Weaver will be able to:

1. Prepare *kek pua* equipment;
2. Prepare beater *(beliak)* equipment;
3. Prepare spool (*jengkuan*) equipment;
4. Prepare pua yarn colouring;
5. Carry out yarn dyeing;
6. Carry out pua design sketching;
7. Carry out pua motif layout;
8. Carry out pua design colouring;
9. Carry out pua weaving sampling;
10. Carry out *'mengirit'* warp;
11. Carry out '*mengarap*' warp;
12. Carry out *'menegi'* warp;
13. Carry out folding (*melipat)* warp;
14. Carry out '*ikat'* pua;
15. Carry out *'ikat' pua* untying;
16. Carry out *'mengirit' pua* edges;
17. Carry out pua weaving; and
18. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS SS-141-2 Senior Pua Weaver

TEXTILE HANDICRAFT

LEVEL 2

*SENIOR TAPESTRY WEAVER

A SENIOR TAPESTRY WEAVER IS DESIGNATED TO PERFORM WEAVING RAW MATERIAL PREPARATION, PERFORM YARN DYEING ACTIVITIES, PERFORM PRE-WEAVING PREPARATION, PERFORM TAPESTRY DESIGN PREPARATION, PERFORM TAPESTRY WEAVING SAMPLE DEVELOPMENT AND PERFORM TAPESTRY WEAVING PRODUCTION.

A Senior Tapestry Weaver will be able to:

1. Carry out colour fixative solution preparation;
2. Carry out natural dye solution Preparation;
3. Carry out colour dye fixing;
4. Carry out warp dyeing;
5. Carry out yarn winding process;
6. Prepare tapestry warp materials;
7. Prepare tapestry weft materials;
8. Carry out tapestry design alteration;
9. Develop tapestry weaving sample;
10. Carry out customer's confirmation assessment;
11. Prepare tapestry weaving finishing sample;
12. Carry out finishing sample selection;
13. Carry out tapestry weaving process;
14. Carry out tapestry weaving quality control (QC); and
15. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS SS-140-2 Senior Tapestry Weaver

TEXTILE HANDICRAFT

LEVEL 2

***SENIOR STAMPED BATIK MAKER**

A SENIOR STAMPED BATIK MAKER IS DESIGNATED TO DEVELOP SCREEN BATIK PROTOTYPE, PERFORM SCREEN BATIK EQUIPMENT PREPARATION, PERFORM SCREEN BATIK MATERIAL PREPARATION, PERFORM SCREEN BATIK DESIGN TRANSFER AND PERFORM SCREEN BATIK PRINTING.

A Senior Stamped Batik Maker will be able to:

1. Produce stamped batik sample;
2. Prepare colour dipping set;
3. Prepare stamped batik colouring set;
4. Prepare stamped batik colour fixative;
5. Prepare stamped batik wax remover;
6. Prepare stamped batik colour brightener agent;
7. Prepare stamped batik wax mixture;
8. Prepare stamped batik colour mixture;
9. Carry out stamped batik design identification;
10. Carry out stamped batik design layout;
11. Carry out stamped batik motif design;
12. Carry out wax melting;
13. Carry out fabric installation;
14. Carry out motif stamping;
15. Carry out background colouring;
16. Carry out colour overlapping; and
17. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS SS-080-2 Senior Stamped Batik Maker

TEXTILE HANDICRAFT

LEVEL 2

***SENIOR SCREEN BATIK MAKER**

A SENIOR SCREEN BATIK MAKER IS DESIGNATED TO DEVELOP SCREEN BATIK PROTOTYPE, PERFORM SCREEN BATIK EQUIPMENT PREPARATION, PERFORM SCREEN BATIK MATERIAL PREPARATION, PERFORM SCREEN BATIK DESIGN TRANSFER AND PERFORM SCREEN BATIK PRINTING.

A Senior Screen Batik Maker will be able to:

1. Produce screen batik sample;
2. Prepare screen batik making set;
3. Prepare screen batik mixture set;
4. Prepare screen batik fabrication set;
5. Prepare screen batik stock paste;
6. Prepare screen batik colour fixer mixture;
7. Prepare screen batik colour brightener agent;
8. Prepare screen batik starch remover mixture;
9. Interpret screen batik design;
10. Carry out screen batik design transfer;
11. Carry out screen batik design selection;
12. Carry out fabric installation;
13. Register screen batik design;
14. Carry out colour overlapping; and
15. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS SS-090-2 Senior Screen Batik Maker

TEXTILE HANDICRAFT

LEVEL 2

***SENIOR HAND-DRAWN BATIK MAKER**

A SENIOR HAND-DRAWN BATIK MAKER IS DESIGNATED TO DEVELOP HAND-DRAWN BATIK PROTOTYPE, PERFORM HAND-DRAWN BATIK MATERIAL PREPARATION, PERFORM HAND-DRAWN BATIK DESIGN APPLICATION, PERFORM HAND-DRAWN BATIK WAX DRAWING, PERFORM HAND-DRAWN BATIK FABRIC COLOURING AND CONDUCT HAND-DRAWN BATIK FINISHING

A Senior Hand-Drawn Batik Maker will be able to:

1. Produce hand-drawn batik samples;
2. Prepare hand-drawn batik colour fixative;
3. Prepare hand-drawn batik wax remover mixture;
4. Prepare hand-drawn batik colour brightener agent;
5. Prepare hand-drawn batik wax mixture;
6. Prepare hand-drawn batik dyes;
7. Carry out hand-drawn batik design identification;
8. Carry out hand-drawn batik design layout;
9. Carry out hand-drawn batik design motif transfer ;
10. Carry out fabric stretching;
11. Carry out wax melting;
12. Carry out wax drawing;
13. Carry out motif colouring;
14. Carry out colour overlapping; and
15. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS SS-100-2 Senior Hand-Drawn Batik Artist

TEXTILE HANDICRAFT

LEVEL 3

*SONGKET WEAVING SUPERVISOR

A SONGKET WEAVING SUPERVISOR IS DESIGNATED TO MONITOR SONGKET WEAVING EQUIPMENT PREPARATION, YARN DYEING ACTIVITIES, SONGKET DESIGNING WORKS, SAMPLING WORKS, SONGKET WEAVING PRODUCTION ACTIVITIES AND PERFORM OTHER SUPERVISORY FUNCTIONS.

A Songket Weaving Supervisor will be able to:

1. Verify weaving equipment preparation works;
2. Prepare dye formula;
3. Prepare yarn dyed finishing formula;
4. Prepare colour fixing solution;
5. Verify yarn dyeing activities;
6. Verify design activities;
7. Carry out songket weaving sample approval;
8. Verify songket weaving sampling activities;
9. Verify songket weaving production;
10. Conduct section briefing;
11. Prepare appraisal recommendation;
12. Carry out subordinates requirement planning;
13. Monitor work progress performance;
14. Conduct on-job training; and
15. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS SS-142-3 Songket and Dastar Weaving Supervisor

TEXTILE HANDICRAFT

LEVEL 3

***DASTAR WEAVING SUPERVISOR**

A DASTAR WEAVING SUPERVISOR IS DESIGNATED TO MONITOR DASTAR WEAVING EQUIPMENT PREPARATION, YARN DYEING ACTIVITIES, DASTAR DESIGNING WORKS, SAMPLING WORKS, DASTAR WEAVING PRODUCTION ACTIVITIES AND PERFORM OTHER SUPERVISORY FUNCTIONS.

A Dastar Weaving Supervisor will be able to:

1. Verify weaving equipment preparation works;
2. Prepare dye formula;
3. Prepare yarn dyed finishing formula;
4. Prepare colour fixing solution;
5. Verify yarn dyeing activities;
6. Verify design activities;
7. Carry out dastar weaving sample approval;
8. Verify dastar weaving sampling activities;
9. Verify dastar weaving production;
10. Conduct section briefing;
11. Prepare appraisal recommendation;
12. Carry out subordinates requirement planning;
13. Monitor work progress performance;
14. Conduct on-job training; and
15. Perform related tasks.

Notes:

* Critical job title

Referring to existing NOSS SS-142-3 Songket and Dastar Weaving Supervisor

TEXTILE HANDICRAFT

LEVEL 3

***PUA WEAVING SUPERVISOR**

A PUA WEAVING SUPERVISOR IS DESIGNATED TO MONITOR PUA WEAVING EQUIPMENT PREPARATION, PUA YARN DYEING ACTIVITIES, PUA DESIGNING WORKS, PUA WEAVING SAMPLING WORKS, PUA WEAVING PRODUCTION ACTIVITIES AND PERFORM OTHER SUPERVISORY FUNCTIONS.

A Pua Weaving Supervisor will be able to:

1. Verify weaving equipment preparation works;
2. Prepare dye formula;
3. Prepare yarn dyed finishing formula;
4. Prepare colour fixing solution;
5. Verify yarn dyeing activities;
6. Verify design activities;
7. Carry out pua weaving sample approval;
8. Verify pua weaving sampling activities;
9. Verify pua weaving production;
10. Conduct section briefing;
11. Prepare appraisal recommendation;
12. Carry out subordinates requirement planning;
13. Monitor work progress performance;
14. Conduct on-job training; and
15. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS SS-141-3 Pua Weaving Supervisor

TEXTILE HANDICRAFT

LEVEL 3

***TAPESTRY WEAVING SUPERVISOR**

A TAPESTRY WEAVING SUPERVISOR IS DESIGNATED TO PERFORM WEAVING EQUIPMENT PREPARATION, PERFORM WEAVING RAW MATERIAL PREPARATION, PERFORM YARN DYEING ACTIVITIES, PERFORM PRE-WEAVING PREPARATION, PERFORM TAPESTRY DESIGN PREPARATION, PERFORM TAPESTRY WEAVING SAMPLE DEVELOPMENT, PERFORM TAPESTRY WEAVING PRODUCTION AND PERFORM SUPERVISORY FUNCTIONS.

A Tapestry Weaving Supervisor will be able to:

1. Verify weaving equipment preparation;
2. Verify raw material weaving preparation;
3. Verify yarn dyeing activities performance;
4. Verify tapestry design preparation;
5. Verify tapestry weaving production;
6. Handle subordinate attendance;
7. Supervise subordinate discipline;
8. Conduct in-house training;
9. Conduct sectional meeting;
10. Conduct motivational activities;
11. Carry out workplace grievances handling;
12. Carry out annual appraisal;
13. Synchronize inter-sectional activities;
14. Prepare tapestry product costing; and
15. Perform related tasks.

Notes:

* Critical job title

• Referring to existing NOSS SS-140-3 Tapestry Weaving Supervisor

TEXTILE HANDICRAFT

LEVEL 3

***STAMPED BATIK SUPERVISOR**

A STAMPED BATIK SUPERVISOR IS DESIGNATED TO DEVELOP SCREEN BATIK PROTOTYPE, PERFORM SCREEN BATIK FABRIC PREPARATION, PERFORM SCREEN BATIK EQUIPMENT PREPARATION, PERFORM SCREEN BATIK MATERIAL PREPARATION, PERFORM SCREEN BATIK DESIGN TRANSFER, PERFORM SCREEN BATIK PRINTING, CONDUCT SCREEN BATIK FINISHING AND PERFORM SUPERVISORY FUNCTIONS.

A Stamped Batik Supervisor will be able to:

1. Evaluate stamped batik sample;
2. Acquire management approval;
3. Produce final sample;
4. Verify prototype development;
5. Verify white fabric preparation;
6. Verify equipment preparation;
7. Verify stamped batik material preparation;
8. Verify stamped batik design application;
9. Verify batik stamping;
10. Verify stamped batik finishing;
11. Conduct section meeting;
12. Conduct staff appraisal;
13. Prepare resources requisition;
14. Supervise workplace grievances;

15. Monitor staff discipline;
16. Prepare job schedule; and
17. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS SS-080-3 Stamped Batik Supervisor

TEXTILE HANDICRAFT

LEVEL 3

***SCREEN BATIK SUPERVISOR**

A SCREEN BATIK SUPERVISOR IS DESIGNATED DEVELOP SCREEN BATIK PROTOTYPE, PERFORM SCREEN BATIK FABRIC PREPARATION, PERFORM SCREEN BATIK EQUIPMENT PREPARATION, PERFORM SCREEN BATIK MATERIAL PREPARATION, PERFORM SCREEN BATIK DESIGN TRANSFER, PERFORM SCREEN BATIK PRINTING, CONDUCT SCREEN BATIK FINISHING AND PERFORM SUPERVISORY FUNCTIONS.

A Screen Batik Supervisor will be able to:

- Evaluate screen batik sample;
- Acquire management approval;
- Produce final sample;
- Verify prototype development;
- Verify white fabric preparation;
- Verify equipment preparation;
- Verify screen batik equipment preparation;
- Verify screen batik design application;
- Verify screen batik printing;
- Verify screen batik finishing;
- Conduct section meeting;
- Conduct staff appraisal;
- Prepare resources requisition;
- Supervise workplace grievances;
- Monitor staff discipline;
- Prepare job schedule; and
- Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS SS-090-3 Screen Batik Supervisor

TEXTILE HANDICRAFT

LEVEL 3

***HAND-DRAWN BATIK ARTIST**

A HAND-DRAWN BATIK SUPERVISOR IS DESIGNATED TO DEVELOP HAND-DRAWN BATIK PROTOTYPE, PERFORM HAND-DRAWN BATIK FABRIC PREPARATION, PERFORM HAND-DRAWN BATIK EQUIPMENT PREPARATION, PERFORM HAND-DRAWN BATIK MATERIAL PREPARATION, PERFORM HAND-DRAWN BATIK DESIGN APPLICATION, PERFORM HAND-DRAWN BATIK WAX DRAWING, PERFORM HAND-DRAWN BATIK FABRIC COLOURING, CONDUCT HAND-DRAWN BATIK FINISHING AND PERFORM SUPERVISORY FUNCTIONS.

A Hand-Drawn Batik Artist will be able to:

1. Prepare out hand-drawn batik final sample;
2. Carry out hand-drawn batik sample adjustment;
3. Acquire sample approval;
4. Verify hand drawn batik prototype;
5. Verify white fabric preparation;
6. Verify material preparation;
7. Acquire design layout approval;
8. Verify wax drawing;
9. Verify hand-drawn batik colouring;
10. Verify hand-drawn batik finishing;
11. Prepare staff annual appraisal;
12. Prepare resources requisition;
13. Monitor staff discipline;
14. Prepare job schedule; and
15. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS SS-100-3 Hand-Drawn Batik Artist Supervisor

TEXTILE HANDICRAFT

LEVEL 4
WEAVING INDUSTRY EXECUTIVE

A WEAVING INDUSTRY EXECUTIVE IS DESIGNATED TO MANAGE MANPOWER, CONDUCT MARKET RESEARCH, PLAN PRODUCT MARKETING, PLAN PRODUCTION BUDGET, PLAN AND MONITOR PRODUCTION ACTIVITIES, AND ORGANISE TRAINING FOR OTHERS WEAVING INDUSTRY PERSONNEL.

A Weaving Industry Executive will be able to:

1. Carry out manpower selection;
2. Arrange manpower duties;
3. Prepare manpower requirements;
4. Perform trend survey;
5. Research new production materials;
6. Research new production technologies;
7. Control product stock;
8. Carry out marketing strategy;
9. Control production budget;
10. Produce weaving products and production specification;
11. Produce production schedule;
12. Control production flow;
13. Carry out production progression monitoring;
14. Prepare training schedule;
15. Prepare training materials; and
16. Perform related tasks.

Note:

- Referring to existing NOSS SS-142-4 Weaving Industry Executive

TEXTILE HANDICRAFT

LEVEL 4

WEAVING DESIGNER

A WEAVING DESIGNER IS DESIGNATED TO MANAGE WEAVING DESIGNING MANPOWER, CONDUCT WEAVING DESIGN RESEARCH & DEVELOPMENT, PERFORM WEAVING DESIGN EXECUTIONS**,** PERFORM WEAVING DESIGNING PROGRESSION, ORGANIZE WEAVING DESIGN PERSONNEL TRAINING PROGRAMME.WEAVING FASHION & DESIGN MARKET ANALYSIS, PERFORM WEAVING DESIGN QUALITY CONTROL, MONITOR.

A Weaving Designer will be able to:

1. Carry out designing duties revision;
2. Research new colour trend;
3. Research new designing tools / technologies;
4. Research new weaving materials;
5. Research new designs trend;
6. Research new product dimension;
7. Research new product development;
8. Carry out design sampling;
9. Carry out design portfolio preparation;
10. Carry out design tools/equipments verifications;
11. Evaluate current/traditional design;
12. Carry out market demand analysis;
13. Carry out customer feedback analysis;
14. Carry out market segmentation analysis;
15. Carry out design conformance;

16. Prepare training need analysis;
17. Prepare design training materials; and
18. Perform related tasks.

Note:

- Referring to existing NOSS SS-140-4 Weaving Designer

TEXTILE HANDICRAFT

LEVEL 4

BATIK PRODUCTION EXECUTIVE

A BATIK PRODUCTION EXECUTIVE IS DESIGNATED TO MANAGE PRODUCTION MANPOWER, PLAN MARKET RESEARCH, PLAN BATIK PRODUCTION, PLAN PRODUCT MARKETING, MONITOR BATIK PRODUCTION PROGRESSION AND ORGANISE PRODUCTION TRAINING.

A Batik Production Executive will be able to:

1. Arrange manpower duties;
2. Carry out duties revision;
3. Prepare manpower requirements;
4. Perform batik trend survey;
5. Research new production tools;
6. Research new production materials;
7. Research new production technologies;
8. Research new production methods;
9. Carry out batik production capacity schedule;
10. Carry out batik production estimation;
11. Verify batik production equipment requirement;
12. Control product stock;
13. Carry out marketing strategy;
14. Produce batik production schedule;
15. Control batik production flow;
16. Carry out batik production progression monitoring;
17. Prepare training schedule;
18. Prepare training materials; and
19. Perform related tasks.

Note:

- Referring to existing NOSS SS-110-4 Batik Production Executive

TEXTILE HANDICRAFT

LEVEL 4

BATIK DESIGNER

A BATIK DESIGNER IS DESIGNATED TO CONDUCT DESIGN RESEARCH AND DEVELOPMENT, PERFORM DESIGNS PRODUCTION, PERFORM FASHION AND DESIGN MARKET ANALYSIS, PERFORM DESIGN QUALITY CONTROL, SUPERVISE DESIGNING PROGRESSION AND ORGANISE BATIK DESIGNING TRAINING.

A Batik Designer will be able to:

1. Research new colour combination;
2. Research new designing tools;
3. Research new designing materials;
4. Research new designing technologies;
5. Research new batik designs;
6. Research new designing motif;
7. Research new designing techniques;
8. Carry out designing duration estimation;
9. Verify designing equipment requirement;
10. Carry out batik design portfolio preparation;
11. Verify designing current and traditional design;
12. Carry out market demand analysis;
13. Carry out customer feedback analysis;
14. Evaluate batik design equipment;
15. Prepare equipment handling procedure;
16. Prepare material handling procedure;
17. Produce design production schedule;
18. Control design production flow;

19. Prepare training schedule;
20. Prepare training materials;
21. Plan training facilities; and
22. Perform related tasks.

Note:

- Referring to existing NOSS SS-120-4 Batik Designer

TEXTILE HANDICRAFT

LEVEL 5

WEAVING INDUSTRY MANAGER

A TAPESTRY WEAVING SUPERVISOR IS DESIGNATED TO PERFORM MARKET RESEARCH, DEVELOP PRODUCTION LAYOUT, PLAN WEAVING PRODUCTION, FORMULATE COMPANY BUDGET, MANAGE WEAVING PRODUCTION PROGRESSION, ORGANIZE QUALITY CONTROL & PERFORM MANAGERIAL FUNCTIONS.

A Weaving Industry Manager will be able to:

1. Research product range;
2. Carry out market competitions analysis;
3. Purchase production equipments;
4. Acquire local authority approval;
5. Carry out weaving design/pattern production plan;
6. Formulate production cost structure;
7. Analyse production line;
8. Evaluate production specification;
9. Prepare production standard manual;
10. Carry out production outcome estimation;
11. Plan maintenance budget;
12. Plan administrative budget;
13. Plan material budget;
14. Plan new project budget;
15. Prepare production SOP;
16. Carry out production performance analysis;
17. Prepare production maintenance manual;
18. Carry out quality improvement;

19. Approve quality work instruction manual;
20. Respond to customer feedback;
21. Coordinate quality audit;
22. Manage manpower;
23. Carry out marketing strategy arrangement; and
24. Perform related tasks.

Note:

- Referring to existing NOSS SS-142-5 Weaving Industry Manager

TEXTILE HANDICRAFT

LEVEL 5

BATIK PRODUCTION MANAGER

A BATIK PRODUCTION MANAGER IS DESIGNATED TO MANAGE PRODUCTION MANPOWER, CONDUCT MARKET RESEARCH, PLAN BATIK PRODUCTION, PERFORM FASHION AND DESIGN MARKET ANALYSIS, FORMULATE COMPANY BUDGET, PLAN PRODUCT MARKETING, MONITOR BATIK PRODUCTION PROGRESSION, PERFORM DESIGN QUALITY CONTROL AND ORGANISE PRODUCTION TRAINING.

A Batik Production Manager will be able to:

1. Manage manpower;
2. Carry out batik target group analysis;
3. Carry out market competition analysis;
4. Carry out batik production schedule;
5. Analyse batik fashion and design trend;
6. Analyse current fashion and design market;
7. Prepare budgets;
8. Acquire local authority approval;
9. Carry out product promotion strategy;
10. Carry out marketing network plan;
11. Produce batik production specification;
12. Carry out production performance analysis;
13. Prepare production performance analysis;
14. Produce design production standard;
15. Carry out batik design evaluation;
16. Carry out quality control management team;
17. Propose design value-added;
18. Coordinate technical training;

19. Evaluate production training; and
20. Perform related tasks.

Note:

- Referring to existing NOSS SS-130-5 Batik Production Manager

TEXTILE MACHINE MAINTENANCE

TEXTILE MACHINE MAINTENANCE

LEVEL 1

***TEXTILE MACHINE MAINTENANCE JUNIOR TECHNICIAN**

A TEXTILE MACHINE MAINTENANCE JUNIOR TECHNICIAN IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER OR INSTRUCTIONS FROM SUPERIOR, REPORT ANY ABNORMALITY OCCURRED DURING MAINTENANCE ACTIVITIES AND ASSIST TEXTILE MACHINE MAINTENANCE TECHNICIAN IN ALL WORKS

A Textile Machine Maintenance Junior Technician will be able to:

1. Adjust functional parts of devices and control instruments, using hand tools, levels, plumb bobs, and straightedges;
2. Align and balance new textile equipment or machine after installation;
3. Assemble, install or repair wiring, electrical and electronic components, machinery and equipment;
4. Align or adjust clearances of mechanical components or parts;
5. Clean and lubricate shafts, bearings, gears, and other parts of textile machinery;
6. Repair minor mechanical problems;
7. Record all maintenance works; and
8. Perform related tasks.

Note:

* Critical job title

TEXTILE MACHINE MAINTENANCE

LEVEL 2

***TEXTILE MACHINE MAINTENANCE TECHNICIAN**

A TEXTILE MACHINE MAINTENANCE TECHNICIAN IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER OR INSTRUCTIONS FROM SUPERIOR, REPORT ANY ABNORMALITY OCCURRED DURING MAINTENANCE ACTIVITIES AND ASSIST TEXTILE MACHINE MAINTENANCE SENIOR TECHNICIAN IN ALL WORKS.

A Textile Machine Maintenance Technician will be able to:

1. Adjust functional parts of devices and control instruments, using hand tools, levels, plumb bobs, and straightedges;
2. Align and balance new textile equipment and machine after installation;
3. Assemble, install or repair wiring, electrical and electronic components, machinery and equipment;
4. Align or adjust clearances of mechanical components or parts;
5. Clean and lubricate shafts, bearings, gears, and other parts of machinery;
6. Train other machine maintenance technicians;
7. Repair minor mechanical problems;
8. Prepare record of all work performed; and
9. Perform related tasks.

Note:

* Critical job title

TEXTILE MACHINE MAINTENANCE

LEVEL 3

***TEXTILE MACHINE MAINTENANCE SENIOR TECHNICIAN**

A TEXTILE MACHINE MAINTENANCE SENIOR TECHNICIAN IS DESIGNATED TO SUPERVISE AND COORDINATE OTHER TEXTILE MACHINE MAINTENANCE TECHNICIANS IN THE TEXTILE MACHINE MAINTENANCE ACTIVITIES. THE PERSON ALSO PREPARES WORK SCHEDULE FOR TEXTILE MACHINE MAINTENANCE TECHNICIANS AND ASSIST TEXTILE MACHINE MAINTENANCE EXECUTIVE IN ALL WORKS.

A Textile Machine Maintenance Senior Technician will be able to:

1. Prepare maintenance schedule;
2. Compile and evaluate statistical data to determine and maintain quality and reliability of products;
3. Diagnose mechanical problems and determine how to correct them;
4. Evaluate data and write reports to validate or indicate deviations from existing standards;
5. Verify textile machine maintenance works;
6. Train workers in job duties, safety procedures and company's policies;
7. Train new workers;
8. Resolve work-related problems and prepare and submit progress and other reports;
9. Inspect machinery to determine whether repairs are needed;
10. Prepare record of all work performed;
11. Perform supervisory functions; and
12. Perform related tasks.

Note:

* Critical job title

TEXTILE MACHINE MAINTENANCE

LEVEL 4

TEXTILE MACHINE MAINTENANCE EXECUTIVE

A TEXTILE MACHINE MAINTENANCE EXECUTIVE IS DESIGNATED TO ASSIST TEXTILE MACHINE MAINTENANCE MANAGER TO PLAN, ORGANIZE, DIRECT, CONTROL AND EVALUATE THE TEXTILE MACHINE MAINTENANCE DEPARTMENT WITHIN THE INDUSTRIAL FACILITIES. THE PERSON ALSO PERFORMS LIMITED MANAGEMENT ACTIVITIES.

A Textile Machine Maintenance Executive will be able to:

1. Supervise textile machine maintenance activities;
2. Oversee the leasing of space in the facility;
3. Oversee the installation, maintenance and repairing works including machinery, equipment and electrical and mechanical systems;
4. Plan and manage the facility's maintenance budget;
5. Prepare or oversee the preparation of reports and statistics related to areas of responsibility;
6. Supervise textile machine maintenance staff;
7. Review of inspection and repair reports and observes progress of work on major overhauls to evaluate efficiency and work quality;
8. Confer with contractors to resolve problems in installation of new equipment and to assist in start of new plants or additions;
9. Resolve work-related problems;
10. Perform hiring and training activities;
11. Prepare various types of report; and
12. Perform related tasks.

TEXTILE MACHINE MAINTENANCE

LEVEL 5

TEXTILE MACHINE MAINTENANCE MANAGER

A TEXTILE MACHINE MAINTENANCE MANAGER IS DESIGNATED TO PLAN, ORGANIZE, DIRECT, CONTROL AND EVALUATE THE TEXTILE MACHINE MAINTENANCE DEPARTMENT WITHIN THE INDUSTRIAL FACILITIES. THE PERSON ALSO PERFORMS A WIDE RANGE OF MANAGEMENT ACTIVITIES.

A Textile Machine Maintenance Manager will be able to:

1. Plan, organize, direct, control and evaluate the textile machine maintenance activities;
2. Confer with other department heads to plan maintenance programs and to schedule inspections and major overhauls in coordination with other operating activities;
3. Develop and implement schedules and procedures for safety inspections and preventive maintenance programs;
4. Oversee the leasing of space in the facility;
5. Oversee the installation, maintenance and repairing works including machinery, equipment and electrical and mechanical systems;
6. Plan and manage the facility's maintenance budget;
7. Administer contracts for the provision of supplies and services;
8. Prepare or oversee the preparation of reports and statistics related to areas of responsibility;
9. Communicates with other departments;
10. Conduct Training Needs Analysis at organizational level;
11. Develop, manage and promote training;
12. Manage changes and influence workplace culture;

13. Supervise, support and develop subordinates;
14. Exercise leadership at workplace;
15. Plan, organize and develop quality improvement activities.
16. Recommend personnel actions such as hiring and promotions; and
17. Perform related tasks.

APPAREL MANUFACTURING

APPAREL MANUFACTURING

LEVEL 1

***MEN'S WEAR JUNIOR TAILOR**

A MEN'S WEAR JUNIOR TAILOR IS DESIGNATED TO DESIGN MEN'S FASHION, CONSTRUCT PATTERN DRAFTING, PERFORM MATERIAL CUTTING, PERFORM CLOTHES SEWING AND PERFORM CLOTHES ASSEMBLY.

A Men's Wear Junior Tailor will be able to:

1. Sketch casual wear;
2. Sketch traditional outfit;
3. Sketch children's wear;
4. Draft casual wear pattern;
5. Draft traditional outfit pattern;
6. Draft children's wear pattern;
7. Cut fabric;
8. Carry out hand stitching;
9. Carry out machine stitching;
10. Carry out hand embroidery stitching;
11. Assemble men's wear; and
12. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS TA-010-1 Tailor

APPAREL MANUFACTURING

LEVEL 1

*LADIES' JUNIOR DRESSMAKER

A LADIES' JUNIOR DRESSMAKER IS DESIGNATED TO DESIGN LADIES' FASHION, CONSTRUCT PATTERN DRAFTING, PERFORM MATERIAL CUTTING, PERFORM CLOTHES SEWING AND PERFORM CLOTHES ASSEMBLY.

A Ladies' Junior Dressmaker will be able to:

1. Sketch casual wear;
2. Sketch traditional outfit;
3. Sketch children's wear;
4. Draft casual wear pattern;
5. Draft traditional outfit pattern;
6. Draft children's wear pattern;
7. Cut fabric;
8. Carry out hand stitching;
9. Carry out machine stitching;
10. Carry out hand embroidery stitching;
11. Assemble men's wear; and
12. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS K-012-1 Dressmaker

APPAREL MANUFACTURING

LEVEL 1

***EMBROIDERY OPERATOR**

AN EMBROIDERY OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER OR INSTRUCTIONS FROM SUPERIOR, REPORT ANY ABNORMALITY OCCURRED DURING EMBROIDERY PROCESS AND ASSIST EMBROIDERY SENIOR OPERATOR IN ALL WORKS.

An Embroidery Operator will be able to:

1. Carry out given tasks at designated working area;
2. Operate embroidery equipment based on product specifications;
3. Inspect finished product for defects;
4. Store finished product at designated area;
5. Notify supervisors or mechanics of equipment malfunctions;
6. Repair minor mechanical problems;
7. Clean, oil, and lubricate machines using air hoses, cleaning solutions, rags, oilcans, and grease guns; and
8. Perform related tasks.

Note:

* Critical job title

APPAREL MANUFACTURING

LEVEL 1

***SEWING OPERATOR**

A SEWING OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER OR INSTRUCTIONS FROM SUPERIOR, REPORT ANY ABNORMALITY OCCURRED DURING SEWING PROCESS AND ASSIST SEWING SENIOR OPERATOR IN ALL WORKS.

A Sewing Operator will be able to:

1. Carry out given tasks at designated machines area;
2. Carry out joining sewing machine set-up;
3. Carry out securing sewing machine set-up;
4. Carry out fastening sewing machine set-up;
5. Carry out decorative sewing machine set-up;
6. Notify supervisors or mechanics of equipment malfunctions;
7. Repair minor mechanical problems;
8. Clean, oil, and lubricate machines using air hoses, cleaning solutions, rags, oilcans, and grease guns; and
9. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS K-040-1 Industrial Sewing Machine Operator

APPAREL MANUFACTURING

LEVEL 1

***FINISHING OPERATOR**

A FINISHING OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER OR INSTRUCTIONS FROM SUPERIOR, REPORT ANY ABNORMALITY OCCURRED DURING FINISHING PROCESS AND ASSIST FINISHING SENIOR OPERATOR IN ALL WORKS.

A Finishing Operator will be able to:

1. Carry out given tasks at designated working area;
2. Operate finishing equipment or machine based on product specifications;
3. Inspect finished product for defects;
4. Store finished product at designated area;
5. Notify supervisors or mechanics of equipment or machine malfunctions;
6. Repair minor mechanical problems;
7. Clean, oil, and lubricate machines, using air hoses, cleaning solutions, rags, oilcans, and grease guns; and
8. Perform related tasks.

Note:

***** Critical job title

APPAREL MANUFACTURING

LEVEL 1

***APPAREL MANUFACTURING MACHINE MAINTENANCE JUNIOR TECHNICIAN**

AN APPAREL MANUFACTURING MACHINE MAINTENANCE JUNIOR TECHNICIAN IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER OR INSTRUCTIONS FROM SUPERIOR, REPORT ANY ABNORMALITY OCCURRED DURING APPAREL MANUFACTURING MACHINE MAINTENANCE ACTIVITIES AND ASSIST APPAREL MANUFACTURING MACHINE MAINTENANCE TECHNICIAN IN ALL WORKS

An Apparel Manufacturing Machine Maintenance Junior Technician will be able to:

1. Adjust functional parts of devices and control instruments, using hand tools, levels, plumb bobs, and straightedges;
2. Align and balance new apparel manufacturing equipment and machine after installation;
3. Assemble, install or repair wiring, electrical and electronic components, machinery and equipment;
4. Align or adjust clearances of mechanical components or parts;
5. Clean and lubricate shafts, bearings, gears, and other parts of apparel manufacturing machinery;
6. Repair minor mechanical problems;
7. Record all maintenance works; and
8. Perform related tasks.

Note:

* Critical job title

APPAREL MANUFACTURING

LEVEL 2

***GARMENTS ALTERATIONIST**

A GARMENTS ALTERATIONIST IS DESIGNATED TO FIT, ALTER AND REPAIR GARMENTS ACCORDING TO CUSTOMERS' REQUESTS BY HAND OR USING SEWING MACHINES.

A Garments Alterationist will be able to:

1. Fit and study garments on customers to determine required alterations;
2. Advise customer on alteration works;
3. Sew garments, using needles and thread or sewing machines;
4. Measure parts such as sleeves or pant legs, and mark or pin-fold alteration lines;
5. Take up or let down hems to shorten or lengthen garment parts such as sleeves
6. Let out or take in seams in suits and other garments to improve fit;
7. Remove stitches from garments to be altered, using rippers or razor blades;
8. Record required alterations and instructions on tags, and attach them to garments;
9. Estimate alteration cost;
10. Maintain sewing machine and other equipments; and
11. Perform related tasks.

Note:

* Critical job title

APPAREL MANUFACTURING

LEVEL 2

***EMBROIDERER**

AN EMBROIDERER IS DESIGNATED TO PERFORM EMBROIDERY WORKS BASED ON CUSTOMERS' REQUESTS BY HAND OR USING EMBROIDERY MACHINES.

An Embroiderer will be able to:

1. Perform works based on work order;
2. Set embroidery equipment and machine;
3. Carry out embroidery works;
4. Maintain quality standard of embroidery products;
5. Follow procedure and adhere to embroidery quality policy;
6. Inspect equipment and machine to determine whether repairs are needed;
7. Estimate embroidery work cost;
8. Maintain embroidery equipment and machine; and
9. Perform related tasks.

Note:

* Critical job title

APPAREL MANUFACTURING

LEVEL 2

***MEN'S WEAR TAILOR**

A MEN'S WEAR TAILOR IS DESIGNATED TO DESIGN MEN'S FASHION, CONSTRUCT PATTERN DRAFTING, PERFORM MATERIAL CUTTING, PERFORM CLOTHES SEWING, PERFORM FITTING ACTIVITIES, PERFORM CLOTHES ASSEMBLY AND PERFORM FASHION STYLING.

A Men's Wear Tailor will be able to:

1. Sketch Malay contemporary outfit;
2. Sketch men's sportswear;
3. Sketch men's office wear;
4. Draft Malay contemporary outfit pattern;
5. Draft men's sportswear pattern;
6. Draft men's office wear pattern;
7. Cut fabrics;
8. Carry out special machine stitching;
9. Carry out machine embroidery stitching;
10. Produce men's fashion sample;
11. Carry out fitting adjustment;
12. Carry out pattern alteration;
13. Assemble men's wear;
14. Re-style finished garment;
15. Carry out garments alteration; and
16. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS TA-010-2 Senior Tailor

APPAREL MANUFACTURING

LEVEL 2

***LADIES' DRESSMAKER**

A LADIES' DRESSMKAER IS DESIGNATED TO DESIGN LADIES' FASHION, CONSTRUCT PATTERN DRAFTING, PERFORM MATERIAL CUTTING, PERFORM CLOTHES SEWING, PERFORM FITTING ACTIVITIES, PERFORM CLOTHES ASSEMBLY AND PERFORM FASHION STYLING.

A Ladies' Dressmaker will be able to:

1. Sketch Malay contemporary outfit;
2. Sketch maternity wear;
3. Sketch ladies' sportswear;
4. Sketch ladies' office wear;
5. Draft Malay contemporary outfit pattern;
6. Draft maternity wear pattern;
7. Draft ladies' sportswear pattern;
8. Draft ladies' office wear pattern;
9. Cut fabrics;
10. Carry out special machine stitching;
11. Carry out machine embroidery stitching;
12. Produce ladies' fashion sample;
13. Carry out fitting adjustment;
14. Carry out pattern alteration;
15. Assemble ladies' wear;
16. Re-style finished garment;
17. Carry out garments alteration; and
18. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS K-012-2 Senior Dressmaker

APPAREL MANUFACTURING

LEVEL 2

***APPAREL ASSISTANT MERCHANDISER**

AN APPAREL ASSISTANT MERCHANDISER IS DESIGNATED TO ASSIST APPAREL MERCHANDISER ON PRODUCTION PLANNING, SUPPLIER MANAGEMENT, CLIENT RELATION MANAGEMENT AND PROCUREMENT IN APPAREL MERCHANDISING ACTIVITIES.

An Apparel Assistant Merchandiser will be able to:

1. Place materials order;
2. Check the details of customer's requirements;
3. Identify type of dyeing and it's process;
4. Identify type of printing and it's process;
5. Identify production specification and quality requirement;
6. Place an order with manufacturer/ production;
7. Place order for raw materials, trimming & accessories;
8. Determine mode of transportation;
9. Determine condition of delivery;
10. Determine Term of Payment;
11. Determine delivery dates; and
12. Perform related tasks.

Note:

***** Critical job title

APPAREL MANUFACTURING

LEVEL 2

***ASSISTANT APPAREL DESIGNER**

AN ASSISTANT APPAREL DESIGNER IS DESIGNATED TO SKETCH AND DRAW PATTERNS, DEVELOP DESIGNS, PRODUCE DESIGN AND COLOUR SAMPLES, UPDATE ON TRENDS, AND SEW MOCK-UP SAMPLES.

An Assistant Apparel Designer will be able to:

1. Sketch rough and detailed drawings of apparel or accessories;
2. Write apparel specifications, such as colour scheme, construction, or material type;
3. Draw and cut pattern;
4. Cut material according to pattern;
5. Sews together sections to form mock-up or sample of garment;
6. Attend fashion shows and review garment magazines to gather information about fashion trends and consumer preferences;
7. Study current trends;
8. Collaborate with other designers to coordinate special products and designs; and
9. Perform related tasks.

Note:

* Critical job title

APPAREL MANUFACTURING

LEVEL 2

***SAMPLE MAKER**

A SAMPLE MAKER IS DESIGNATED TO PRODUCE SAMPLE GARMENTS FOR MASS PRODUCTION IN APPAREL MANUFACTURING. THE PERSON ALSO ASSISTS SENIOR SAMPLE MAKER IN ALL WORKS.

A Sample Maker will be able to:

1. Carry out proper clothing fittings and issue necessary adjustments or corrections;
2. Check the accuracy of sample garments to ascertain that it follows the original sketch design;
3. Alter sample garments as necessary to satisfy cost specification and manufacturing limitations;
4. Maintain an open communication with designers and manufacturers to ensure smooth transition of designs and actual clothing products;
5. Cut fabric;
6. Carry out hand stitching;
7. Carry out machine stitching;
8. Maintain sewing machine and equipments; and
9. Perform related tasks.

Note:

* Critical job title

APPAREL MANUFACTURING

LEVEL 2

***PATTERN MAKER**

A PATTERN MAKER IS DESIGNATED TO CREATE MASTER PATTERN FOR MASS PRODUCTION IN APPAREL MANUFACTURING. THE PERSON ALSO ASSISTS SENIOR PATTERN MAKER IN ALL WORKS.

A Pattern Maker will be able to:

1. Create paper pattern for a particular apparel design;
2. Send verified paper pattern to sample maker to prepare sample;
3. Make adjustment on paper pattern based on designer or customer feedback on sample;
4. Prepare final pattern based on approved sample;
5. Transfer paper pattern to prepare master pattern (positions of pleats, pockets, buttonholes, and other features);
6. Cut master pattern;
7. Duplicate master patter for cutting and sewing;
8. Keep and store master pattern;
9. Perform grading on approved pattern into the size range required; and
10. Perform related tasks.

Note:

* Critical job title

APPAREL MANUFACTURING

LEVEL 2

***MARKER PLANNER**

A MARKER PLANNER IS DESIGNATED TO CREATE MASTER PATTERNS FOR MASS PRODUCTION IN APPAREL MANUFACTURING. THE PERSON ALSO ASSISTS SENIOR MARKER PLANNER IN ALL WORKS.

A Marker Planner will be able to:

1. Carry out given tasks at designated working area;
2. Perform works based on work order;
3. Determine best arrangement of pattern pieces to minimise wasted fabric;
4. Determine number of marker and marker length based on sizes, colours and order quantity;
5. Determine percentage of fabric utilisation;
6. Print marker for cutting;
7. Check prepared marker;
8. Prepare record of all work performed; and
9. Perform related tasks.

Note:

* Critical job title

APPAREL MANUFACTURING

LEVEL 2

***CUTTING OPERATOR**

A CUTTING OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER, PERFORMS MACHINE-RUNNING CONDITION IN HIGH EFFICIENCY, PREPARE REPORT OF ANY ABNORMALITY DURING CUTTING PROCESS, PREPARES RECORD OF ALL WORK PERFORMED AND ASSIST CUTTING SUPERVISOR IN ALL WORKS.

A Cutting Operator will be able to:

1. Perform works based on work order;
2. Ensure daily input schedule is completed;
3. Prepare table for cutting;
4. Spread fabric and record number of plies, lays and ratio as per work order;
5. Cut fabric based on marker;
6. Maintain quality standard of cut panels;
7. Prepare cut components for sewing;
8. Prepare record of all work performed; and
9. Perform related tasks.

Note:

* Critical job title

APPAREL MANUFACTURING

LEVEL 2

***EMBROIDERY SENIOR OPERATOR**

AN EMBROIDERY SENIOR OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER, PERFORM MACHINE-RUNNING CONDITION IN HIGH EFFICIENCY, PREPARE REPORT OF ANY ABNORMALITY DURING EMBROIDERY PROCESS, PREPARE RECORD OF ALL WORK PERFORMED AND ASSIST EMBROIDERY SUPERVISOR IN ALL WORKS.

An Embroidery Senior Operator will be able to:

1. Perform works based on work order;
2. Ensure daily input schedule is completed;
3. Set embroidery equipment and machine;
4. Test run embroidery equipment and machine;
5. Maintain quality standard of embroidery products;
6. Follow procedure and adhere to embroidery quality policy;
7. Prepare report of abnormality to supervisor;
8. Inspect machinery to determine whether repairs are needed;
9. Prepare record of all work performed; and
10. Perform related tasks.

Note:

* Critical job title

APPAREL MANUFACTURING

LEVEL 2

***SEWING SENIOR OPERATOR**

A SEWING SENIOR OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER, PERFORMS MACHINE-RUNNING CONDITION IN HIGH EFFICIENCY, PREPARE REPORT OF ANY ABNORMALITY DURING SEWING PROCESS, PREPARES RECORD OF ALL WORK PERFORMED AND ASSIST SEWING SUPERVISOR IN ALL WORKS.

A Sewing Senior Operator will be able to:

1. Perform works based on work order;
2. Operate machines for test runs to verify adjustments and to obtain product samples;
3. Carry out sewing operations;
4. Regulate industrial sewing machine thread tension;
5. Adjust industrial sewing machine stitch length;
6. Install industrial sewing machine attachments;
7. Prepare report of abnormality to supervisor;
8. Inspect machinery to determine whether repairs are needed;
9. Prepare record of all work performed;
10. Record production data; and
11. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS K-040-2 Industrial Sewing Machine Senior Operator

APPAREL MANUFACTURING

LEVEL 2

***FINISHING SENIOR OPERATOR**

A FINISHING SENIOR OPERATOR IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER, PREPARE REPORT OF ANY ABNORMALITY DURING FINISHING PROCESS, PREPARE RECORD OF ALL WORK PERFORMED AND ASSIST FINISHING SUPERVISOR IN ALL WORKS.

A Finishing Senior Operator will be able to:

1. Coordinate, arrange and control operators in finishing activities, which are trimming, ironing, folding and packing;
2. Assist Finishing Supervisor in assigning daily duties or tasks to operators;
3. Setting up finishing equipment and machine;
4. Test run equipment and machine;
5. Carry out trimming, ironing, folding and packing activities;
6. Report any abnormality to the Finishing Supervisor;
7. Inspect machinery to determine whether repairs are needed;
8. Prepare record of all work performed; and
9. Perform related tasks.

Note:

* Critical job title

APPAREL MANUFACTURING

LEVEL 2

QUALITY ASSURANCE INSPECTOR

A QUALITY ASSURANCE INSPECTOR IS DESIGNATED TO MAINTAIN THE INSPECTION AND TESTING OF THE MATERIALS, WORK IN PROGRESS AND FINISHED GOODS. THE PERSON ALSO ASSISTS QUALITY ASSURANCE SUPERVISOR IN ALL WORKS.

A Quality Assurance Inspector will be able to:

1. Inspect incoming materials, work in progress and finished apparel products;
2. Interpret production process;
3. Collect samples for testing;
4. Segregate defective items from acceptable items;
5. Conduct destructive and non-destructive testing;
6. Perform equipment calibration;
7. Execute daily QC functions, routine testing and reporting;
8. Collect and control all data related to product and material quality; and
9. Perform related tasks.

APPAREL MANUFACTURING

LEVEL 2

***APPAREL MANUFACTURING MACHINE MAINTENANCE TECHNICIAN**

AN APPAREL MANUFACTURING MACHINE MAINTENANCE TECHNICIAN IS DESIGNATED TO PERFORM WORKS BASED ON WORK ORDER OR INSTRUCTIONS FROM SUPERIOR, REPORT ANY ABNORMALITY OCCURRED DURING MACHINE MAINTENANCE ACTIVITIES AND ASSIST APPAREL MANUFACTURING MACHINE MAINTENANCE SENIOR TECHNICIAN IN ALL WORKS.

An Apparel Manufacturing Machine Maintenance Technician will be able to:

1. Adjust functional parts of devices and control instruments, using hand tools, levels, plumb bobs, and straightedges;
2. Align and balance new apparel manufacturing equipment and machine after installation;
3. Assemble, install or repair wiring, electrical and electronic components, machinery and equipment;
4. Align or adjust clearances of mechanical components or parts;
5. Clean and lubricate shafts, bearings, gears, and other parts of apparel manufacturing machinery;
6. Train other apparel manufacturing machine maintenance technicians;
7. Repair minor mechanical problems;
8. Prepare record of all work performed; and
9. Perform related tasks.

Note:

* Critical job title

APPAREL MANUFACTURING

LEVEL 3

***MEN'S WEAR SENIOR TAILOR**

A MEN'S WEAR SENIOR TAILOR IS DESIGNATED TO DESIGN MEN'S FASHION, CONSTRUCT PATTERN DRAFTING, PERFORM MATERIAL CUTTING, PERFORM CLOTHES SEWING, PERFORM CLOTHES ASSEMBLY, PERFORM FASHION STYLING AND PERFORM SUPERVISORY FUNCTIONS.

A Men's Wear Senior Tailor will be able to:

1. Sketch men's corporate wear;
2. Sketch men's uniform wear;
3. Sketch men's evening wear;
4. Sketch wedding outfit;
5. Draft men's corporate wear pattern;
6. Draft men's uniform wear pattern;
7. Draft men's evening wear pattern;
8. Draft wedding outfit pattern;
9. Cut fabrics;
10. Carry out computerised embroidery machine stitching;
11. Assemble men's wear;
12. Carry out fashion coordination;
13. Coordinate budget;
14. Prepare job schedule;
15. Conduct training;
16. Prepare training materials; and
17. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS TA-010-3 Tailor Supervisor

APPAREL MANUFACTURING

LEVEL 3

***LADIES' SENIOR DRESSMKAER**

A LADIES' SENIOR DRESSMKAER IS DESIGNATED TO DESIGN LADIES' FASHION, CONSTRUCT PATTERN DRAFTING, PERFORM MATERIAL CUTTING, PERFORM CLOTHES SEWING, PERFORM CLOTHES ASSEMBLY, PERFORM FASHION STYLING AND PERFORM SUPERVISORY FUNCTIONS.

A Ladies' Senior Dressmaker will be able to:

1. Sketch ladies' corporate wear;
2. Sketch ladies' uniform wear;
3. Sketch ladies' evening wear;
4. Sketch wedding outfit;
5. Draft ladies' corporate wear pattern;
6. Draft ladies' uniform wear pattern;
7. Draft ladies' evening wear pattern;
8. Draft wedding outfit pattern;
9. Cut fabrics;
10. Carry out computerised embroidery machine stitching;
11. Assemble ladies' wear;
12. Carry out fashion coordination;
13. Coordinate budget;
14. Prepare job schedule;
15. Conduct training;
16. Prepare training materials; and
17. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS K-012-3 Dressmaker Supervisor

APPAREL MANUFACTURING

LEVEL 3

***APPAREL MERCHANDISER**

AN APPAREL MERCHANDISER IS DESIGNATED TO PERFORM PRODUCTION PLANNING, SUPPLIER MANAGEMENT, CLIENT RELATION MANAGEMENT AND PROCUREMENT IN APPAREL MERCHANDISING ACTIVITIES.

An Apparel Merchandiser will be able to:

1. Verify materials order;
2. Verify the details of customer's requirements;
3. Verify production specification and quality requirement;
4. Identify quality consideration for raw materials, trimmings & accessories (acceptable/reject);
5. Identify quality consideration for sewing products (acceptable/reject);
6. Verify mode of transportation;
7. Verify condition of delivery;
8. Verify Term of Payment;
9. Verify delivery dates;
10. Identify Production Order & Scheduling;
11. Carry out sourcing process;
12. Negotiate & confirm price;
13. Keep track collection of payment;
14. Perform supervisory functions; and
15. Perform related tasks.

Note:

* Critical job title

APPAREL MANUFACTURING

LEVEL 3

***APPAREL DESIGNER**

AN APPAREL DESIGNER IS DESIGNATED TO DRAW AND SKETCH PATTERNS AND DESIGNS, LIASE WITH CLIENTS, ATTEND FASHION SHOWS, SEW AND PRODUCE SAMPLES, DESIGN CLOTHES AND ACCESSORIES.

An Apparel Designer will be able to:

1. Liase with clients to develop and plan design briefs or designs custom garments for clients;
2. Integrates findings of analysis and discussion, and personal tastes and knowledge of design, to originate design ideas;
3. Sews together sections to form mock-up or sample of garment or article, using sewing equipment;
4. Directs and coordinates workers who draw and cut patterns, and construct sample or finished garment;
5. Confers with sales and management executives, or clients regarding design ideas;
6. Arranges for showing of sample garments at sales meetings or fashion shows;
7. Examines sample garment on and off model, and modifies design to achieve desired effect;
8. Sketch rough and detailed drawings of apparel or accessories;
9. Write apparel specifications, such as colour scheme, construction, or material type;
10. Attend fashion shows and review garment magazines to gather information about fashion trends and consumer preferences; and
11. Perform related tasks.

Note:

* Critical job title

APPAREL MANUFACTURING

LEVEL 3

***SENIOR SAMPLE MAKER**

A SENIOR SAMPLE MAKER IS DESIGNATED TO SUPERVISE SAMPLE MAKER IN PREPARING SAMPLE GARMENTS FOR MASS PRODUCTION IN APPAREL MANUFACTURING. THE PERSON ALSO ASSISTS SAMPLE MAKING EXECUTIVE IN ALL WORKS.

A Senior Sample Maker will be able to:

1. Conduct proper clothing fittings and issue necessary adjustments or corrections;
2. Inspect the accuracy of sample garments to ascertain that it follows the original sketch design;
3. Verify altered sample garments as necessary to satisfy cost specification and manufacturing limitations;
4. Communicate with designers and manufacturers to ensure smooth transition of designs and actual clothing products;
5. Verify cut fabric;
6. Verify stitching works;
7. Prepare maintenance schedule for sewing machine and equipments;
8. Perform supervisory works; and
9. Perform related tasks.

Note:

* Critical job title

APPAREL MANUFACTURING

LEVEL 3

***SENIOR PATTERN MAKER**

A SENIOR PATTERN MAKER IS DESIGNATED TO SUPERVISE PATTERN MAKER IN PREPARING MASTER PATTERN FOR MASS PRODUCTION IN APPAREL MANUFACTURING. THE PERSON ALSO ASSISTS SENIOR PATTERN MAKER IN ALL WORKS.

A Senior Pattern Maker will be able to:

1. Approve paper pattern for sample;
2. Capture designer's and customer's feedback on sample;
3. Verify adjustment on paper pattern based on designer or customer feedback on sample;
4. Approve final pattern based on approved sample;
5. Verify duplicated master pattern for cutting and sewing;
6. Verify grading on approved pattern into the size range required;
7. Perform supervisory works; and
8. Perform related tasks.

Note:

* Critical job title

APPAREL MANUFACTURING

LEVEL 2

***SENIOR MARKER PLANNER**

A SENIOR MARKER PLANNER IS DESIGNATED TO SUPERVISE MARKER PLANNER IN PREPARING MASTER PATTERNS FOR MASS PRODUCTION IN APPAREL MANUFACTURING. THE PERSON ALSO ASSISTS CUTTING EXECUTIVE IN ALL WORKS.

A Senior Marker Planner will be able to:

1. Carry out given tasks at designated working area;
2. Perform works based on work order;
3. Verify pattern pieces arrangement;
4. Verify number of marker and marker length based on sizes, colours and order quantity;
5. Verify percentage of fabric utilisation;
6. Verify printed marker for cutting;
7. Approve prepared marker;
8. Prepare record of all work performed;
9. Perform supervisory functions; and
10. Perform related tasks.

Note:

* Critical job title

APPAREL MANUFACTURING

LEVEL 3

***CUTTING SUPERVISOR**

A CUTTING SUPERVISOR IS DESIGNATED TO SUPERVISE AND COORDINATE OTHER OPERATORS IN THE CUTTING ACTIVITIES. THE PERSON ALSO PREPARES WORK SCHEDULE FOR CUTTING OPERATORS AND ASSIST CUTTING EXECUTIVE IN ALL WORKS.

A Cutting Supervisor will be able to:

1. Assign tasks to operators;
2. Supervise other cutting operators;
3. Observe operations to detect defects, malfunctions, or supply shortages;
4. Approve spread fabric for cutting;
5. Verify cutting works;
6. Monitor material consumption;
7. Train workers in job duties, safety procedures and company's policies;
8. Train new workers;
9. Resolve work-related problems and prepare and submit progress and other reports;
10. Request materials and supplies;
11. Perform supervisory functions; and
12. Perform related tasks.

Note:

* Critical job title

APPAREL MANUFACTURING

LEVEL 3

***EMBROIDERY SUPERVISOR**

AN EMBROIDERY SUPERVISOR IS DESIGNATED TO SUPERVISE AND COORDINATE OTHER OPERATORS IN THE EMBROIDERY ACTIVITIES. THE PERSON ALSO PREPARES WORK SCHEDULE FOR EMBROIDERY OPERATORS AND ASSIST EMBROIDERY EXECUTIVE IN ALL WORKS.

An Embroidery Supervisor will be able to:

1. Assign tasks to operators;
2. Supervise other embroidery operators;
3. Observe operations to detect defects, malfunctions, or supply shortages;
4. Verify embroidery works;
5. Monitor material consumption;
6. Train workers in job duties, safety procedures and company's policies;
7. Train new workers;
8. Resolve work-related problems and prepare and submit progress and other reports;
9. Request materials and supplies;
10. Perform supervisory functions; and
11. Perform related tasks.

Note:

* Critical job title

APPAREL MANUFACTURING

LEVEL 3

***SEWING SUPERVISOR**

A SEWING SUPERVISOR IS DESIGNATED TO SUPERVISE AND COORDINATE OTHER OPERATORS IN THE SEWING ACTIVITIES. THE PERSON ALSO PREPARES WORK SCHEDULE FOR SEWING OPERATORS AND ASSIST SEWING EXECUTIVE IN ALL WORKS.

A Sewing Supervisor will be able to:

1. Assign tasks to operators;
2. Supervise other sewing operators;
3. Observe operations to detect defects, malfunctions, or supply shortages;
4. Plans industrial sewing machine set-up;
5. Plans sewing line layout;
6. Monitors sewing line balancing;
7. Monitors product quality;
8. Train workers in job duties, safety procedures and company's policies;
9. Train new workers;
10. Resolve work-related problems and prepare and submit progress and other reports;
11. Inspect machinery to determine whether repairs are needed;
12. Request materials and supplies;
13. Perform supervisory functions; and
14. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS K-040-3 Industrial Sewing Machine Supervisor

APPAREL MANUFACTURING

LEVEL 3

***FINISHING SUPERVISOR**

A FINISHING SUPERVISOR IS DESIGNATED TO SUPERVISE AND COORDINATE OTHER OPERATORS IN THE FINISHING ACTIVITIES. THE PERSON ALSO PREPARES WORK SCHEDULE FOR FINISHING OPERATORS AND LINE LEADERS, AND ASSIST FINISHING EXECUTIVE IN ALL WORKS.

A Finishing Supervisor will be able to:

1. Assign tasks to operators and line leaders;
2. Supervise other finishing operators;
3. Observe operations to detect defects, malfunctions, or supply shortages;
4. Verify finishing works;
5. Monitor machine and equipment usage;
6. Train workers in job duties, safety procedures and company's policies;
7. Train new workers;
8. Resolve work-related problems and prepare and submit progress and other reports;
9. Request materials and supplies;
10. Perform supervisory functions; and
11. Perform related tasks.

Note:

* Critical job title

APPAREL MANUFACTURING

LEVEL 3

QUALITY ASSURANCE SUPERVISOR

A QUALITY ASSURANCE SUPERVISOR IS DESIGNATED TO SUPERVISE AND COORDINATE OTHER QUALITY ASSURANCE INSPECTORS IN THE QUALITY ASSURANCE ACTIVITIES. THE PERSON ALSO PREPARES WORK SCHEDULE FOR QUALITY ASSURANCE INSPECTORS AND ASSIST QUALITY ASSURANCE EXECUTIVE IN ALL WORKS.

A Quality Assurance Supervisor will be able to:

1. Confirm status of defective and non-conforming materials, work in progress and finished goods;
2. Inspect finished products before delivery;
3. Manage customer's feedback;
4. Prepare statistical process control;
5. Ensure that the work place is kept free from hazards in order to maintain product quality and workers' safety;
6. Train workers in job duties, safety procedures and company's policies;
7. Train new workers;
8. Resolve work-related problems and prepare and submit progress and other reports;
9. Perform supervisory functions; and
10. Perform related tasks.

APPAREL MANUFACTURING

LEVEL 3

*** APPAREL MANUFACTURING MACHINE MAINTENANCE SENIOR TECHNICIAN**

AN APPAREL MANUFACTURING MACHINE MAINTENANCE SENIOR TECHNICIAN IS DESIGNATED TO SUPERVISE AND COORDINATE OTHER MACHINE MAINTENANCE TECHNICIANS IN THE APPAREL MANUFACTURING MACHINE MAINTENANCE ACTIVITIES. THE PERSON ALSO PREPARES WORK SCHEDULE FOR APPAREL MANUFACTURING MACHINE MAINTENANCE TECHNICIANS AND ASSIST APPAREL MANUFACTURING MACHINE MAINTENANCE EXECUTIVE IN ALL WORKS.

An Apparel Manufacturing Machine Maintenance Senior Technician will be able to:

1. Prepare maintenance schedule;
2. Compile and evaluate statistical data to determine and maintain quality and reliability of products;
3. Diagnose mechanical problems and determine how to correct them;
4. Evaluate data and write reports to validate or indicate deviations from existing standards;
5. Verify apparel manufacturing machine maintenance works;
6. Train workers in job duties, safety procedures and company's policies;
7. Train new workers;
8. Resolve work-related problems and prepare and submit progress and other reports;
9. Inspect machinery to determine whether repairs are needed;
10. Prepare record of all work performed;
11. Perform supervisory functions; and
12. Perform related tasks.

Note:

* Critical job title

APPAREL MANUFACTURING

LEVEL 4

FASHION AND APPAREL EXECUTIVE

A FASHION AND APPAREL EXECUTIVE IS DESIGNATED TO CONSULT CUSTOMER ON FASHION AND APPAREL, DESIGN FASHION, CONSTRUCT PATTERN DRAFTING, PERFORM CLOTHES SEWING, PERFORM CLOTHES ASSEMBLY AND PERFORM FASHION STYLING.

A Fashion and Apparel Executive will be able to:

1. Carry out customer consultation;
2. Design apparel fashion;
3. Conduct fabrics study;
4. Sketch special wear;
5. Draft special wear pattern;
6. Prepare product sample;
7. Cut fabrics;
8. Carry out computerised embroidery machine stitching;
9. Assemble special wear;
10. Measure parts such as sleeves or pant legs, and mark or pin-fold alteration lines;
11. Alter and repair apparel according to customer's requests;
12. Remove stitches from garments to be altered, using rippers or razor blades;
13. Re-style finished garment;
14. Carry out fashion coordination;
15. Inventory stock and reorder when inventory drops to a specified level;
16. Create customer's database;
17. Manage and monitor other tailors;
18. Conduct training; and
19. Perform related tasks.

Note:

- Referring to existing NOSS K-022-4 Fashion & Apparel Executive

APPAREL MANUFACTURING

LEVEL 4

APPAREL SENIOR MERCHANDISER

AN APPAREL SENIOR MERCHANDISER IS DESIGNATED TO ASSIST APPAREL MERCHANDISING MANAGER ON PLANNING, ORGANISING, DIRECTING, CONTROLLING AND EVALUATING THE APPAREL MERCHANDISING ACTIVITIES. THE PERSON ALSO SUPERVISES A GROUP OF APPAREL MERCHANDISERS.

An Apparel Senior Merchandiser will be able to:

1. Evaluates suppliers;
2. Interpret Production Specification;
3. Check pre-production sample against Production specification;
4. Counter check documents details;
5. Negotiate with buyers to ensure delivery of shipment;
6. Oversee daily operation of apparel merchandising activities;
7. Coordinate activities with other work unit or departments;
8. Coordinate, assign and review the work of other apparel merchandiser;
9. Train workers in job duties, safety procedures and company's policies;
10. Develop plans and procedures for the apparel merchandising activities;
11. Control company or department budget;
12. Resolve work-related problems;
13. Perform hiring and training activities;
14. Prepare various types of report; and
15. Perform related tasks.

APPAREL MANUFACTURING

LEVEL 4

APPAREL DESIGN EXECUTIVE

AN APPAREL DESIGN EXECUTIVE IS DESIGNATED TO UNDERTAKE DESIGN AND SAMPLE DEVELOPMENTS, PREPARE SCHEDULE, LIASE WITH CLIENTS, LIASE WITH SALES AND MARKETING PEOPLE, LIASE WITH PRODUCTION STAFF, KEEP UPDATED WITH LATEST TRENDS, AND SOURCE FOR NEW MATERIALS.

An Apparel Design Executive will be able to:

1. Attends fashion shows and reviews garment magazines and manuals to analyse fashion trends, predictions, and consumer preferences;
2. Liase with clients, sales staff, buyers and production team on design matters and meeting deadlines;
3. Coordinates workers who draw and cut patterns, and construct sample or finished garment;
4. Arranges for showing of sample garments at sales meetings or fashion shows;
5. Confers with sales and management executives, or clients regarding design ideas;
6. Integrates findings of analysis and discussion, and personal tastes and knowledge of design, to originate design ideas;
7. Perform presentation of designs and samples to clients;
8. Prepare proper design and sample development schedule for Design Department;
9. Control company or department budget;
10. Resolve work-related problems;
11. Perform hiring and training activities; and
12. Perform related tasks.

APPAREL MANUFACTURING

LEVEL 4

SAMPLE MAKING EXECUTIVE

A SAMPLE MAKING EXECUTIVE IS DESIGNATED TO ASSIST APPAREL DESIGNER ON PLANNING, ORGANISING, DIRECTING, CONTROLLING AND EVALUATING THE SAMPLE MAKING ACTIVITIES. THE PERSON ALSO SUPERVISES A GROUP OF SAMPLE MAKERS TO ENSURE THE PRODUCTION TARGET IS MET.

A Sample Making Executive will be able to:

1. Oversee daily operation of sample making activities;
2. Prepare work schedules for sample makers;
3. Coordinate activities with other work unit or departments;
4. Coordinate, assign and review the work of other sample makers;
5. Train workers in job duties, safety procedures and company's policies;
6. Develop plans and procedures for the sample making activities;
7. Improve production procedure if necessary,
8. Control company or department budget;
9. Resolve work-related problems;
10. Perform hiring and training activities;
11. Manage materials and supplies requisition;
12. Prepare various types of report; and
13. Perform related tasks.

APPAREL MANUFACTURING

LEVEL 4

CUTTING EXECUTIVE

A CUTTING EXECUTIVE IS DESIGNATED TO ASSIST PLANT MANAGER ON PLANNING, ORGANISING, DIRECTING, CONTROLLING AND EVALUATING THE CUTTING SECTION. THE PERSON ALSO SUPERVISES A GROUP OF SUPERVISORS AND OPERATORS TO ENSURE THE PRODUCTION TARGET IS MET.

A Cutting Executive will be able to:

1. Oversee daily operation of cutting activities;
2. Prepare work schedules for supervisors and operators;
3. Coordinate activities with other work unit or departments;
4. Coordinate, assign and review the work of other supervisors and operators;
5. Train workers in job duties, safety procedures and company's policies;
6. Develop plans and procedures for the cutting activities;
7. Improve production procedure if necessary,
8. Control company or department budget;
9. Resolve work-related problems;
10. Perform hiring and training activities;
11. Manage materials and supplies requisition;
12. Prepare various types of report; and
13. Perform related tasks.

APPAREL MANUFACTURING

LEVEL 4

SEWING EXECUTIVE

A SEWING EXECUTIVE IS DESIGNATED TO ASSIST PLANT MANAGER ON PLANNING, ORGANISING, DIRECTING, CONTROLLING AND EVALUATING THE SEWING SECTION. THE PERSON ALSO SUPERVISES A GROUP OF SEWING SUPERVISORS AND OPERATORS TO ENSURE THE PRODUCTION TARGET IS MET.

A Sewing Executive will be able to:

1. Oversee daily operation of sewing activities;
2. Prepare work schedules for supervisors and operators;
3. Coordinate activities with other work unit or departments;
4. Coordinate, assign and review the work of other sewing supervisors and operators;
5. Train workers in job duties, safety procedures and company's policies;
6. Develop plans and procedures for the sewing activities;
7. Improve production procedure if necessary,
8. Control company or department budget;
9. Resolve work-related problems;
10. Perform hiring and training activities;
11. Manage materials and supplies requisition;
12. Prepare various types of report; and
13. Perform related tasks.

APPAREL MANUFACTURING

LEVEL 4

FINISHING EXECUTIVE

A FINISHING EXECUTIVE IS DESIGNATED TO ASSIST PLANT MANAGER ON PLANNING, ORGANISING, DIRECTING, CONTROLLING AND EVALUATING THE FINISHING SECTION. THE PERSON ALSO SUPERVISES A GROUP OF SUPERVISORS AND OPERATORS TO ENSURE THE PRODUCTION TARGET IS MET.

A Finishing Executive will be able to:

1. Oversee daily operation of finishing activities;
2. Prepare work schedules for supervisors and operators;
3. Coordinate activities with other work unit or departments;
4. Coordinate, assign and review the work of other supervisors and operators;
5. Train workers in job duties, safety procedures and company's policies;
6. Develop plans and procedures for the finishing activities;
7. Improve production procedure if necessary,
8. Control company or department budget;
9. Resolve work-related problems;
10. Perform hiring and training activities;
11. Manage materials and supplies requisition;
12. Prepare various types of report; and
13. Perform related tasks.

APPAREL MANUFACTURING

LEVEL 4

QUALITY ASSURANCE EXECUTIVE

A QUALITY ASSURANCE EXECUTIVE IS DESIGNATED TO ASSIST QUALITY ASSURANCE MANAGER IN THE INSPECTION AND TESTING OF MATERIALS, WORK IN PROGRESS AND FINISHED PRODUCTS. THE PERSON ALSO SUPERVISES A GROUP OF QUALITY ASSURANCE SUPERVISORS AND INSPECTOR.

A Quality Assurance Executive will be able to:

1. Coordinate all quality control and assurance matters including equipment calibration, statistical analysis, quality planning, inspections and testing, document control, and management review;
2. Liase with customer in cases of new product being produced, so as to obtain new product's specifications;
3. Communicate with customers on product complaints;
4. Prepare Quality Policy and Quality Objective;
5. Develop and implement Quality System;
6. Control company or department budget;
7. Resolve work-related problems;
8. Perform hiring and training activities;
9. Prepare various types of report; and
10. Perform related tasks.

APPAREL MANUFACTURING

LEVEL 4

APPAREL MANUFACTURING MACHINE MAINTENANCE EXECUTIVE

AN APPAREL MANUFACTURING MACHINE MAINTENANCE EXECUTIVE IS DESIGNATED TO ASSIST APPAREL MANUFACTURING MACHINE MAINTENANCE MANAGER TO PLAN, ORGANIZE, DIRECT, CONTROL AND EVALUATE THE MAINTENANCE DEPARTMENT WITHIN THE INDUSTRIAL FACILITIES. THE PERSON ALSO PERFORM LIMITED MANAGEMENT ACTIVITIES.

An Apparel Manufacturing Machine Maintenance Executive will be able to:

1. Supervise apparel maintenance machine maintenance activities;
2. Oversee the leasing of space in the facility;
3. Oversee the installation, maintenance and repairing works including machinery, equipment and electrical and mechanical systems;
4. Plan and manage the facility's maintenance budget;
5. Prepare or oversee the preparation of reports and statistics related to areas of responsibility;
6. Supervise apparel maintenance machine maintenance staff;
7. Review of inspection and repair reports and observes progress of work on major overhauls to evaluate efficiency and work quality;
8. Confer with contractors to resolve problems in installation of new equipment and to assist in start of new plants or additions;
9. Resolve work-related problems;
10. Perform hiring and training activities;
11. Prepare various types of report; and

12. Perform related tasks

APPAREL MANUFACTURING

LEVEL 5

FASHION AND APPAREL MANAGER

A FASHION AND APPAREL MANAGER IS DESIGNATED TO OPERATE BOTIQUE ESTABLISHMENT, MANAGE MANPOWER, PERFORM FASHION, DESIGN AND MARKET ANALYSIS, PLAN PRODUCT MARKETING, CONTROL BOUTIQUE'S STOCKS, PERFORM CUSTOMER RELATION MANAGEMENT, ANALYSE SUPPLIER PERFORMANCE, CONTROL PRODUCT QUALITY AND FORMULATE BUDGET.

A Fashion and Apparel Manager will be able to:

1. Recommend products to customers, based on customers' needs and interests;
2. Contact regular and prospective customers to demonstrate products, explain product features, and solicit orders;
3. Provide customers with product samples and catalogues;
4. Monitor sales activities to ensure that customers receive satisfactory service and quality goods;
5. Conduct fashion, design and trend analysis;
6. Conduct market survey;
7. Set sales target;
8. Conduct product pricing strategy;
9. Develop and implement marketing plan;
10. Implement price and credit policies;
11. Prepare and control budget;
12. Locate, select and procure merchandise for resale;
13. Inventory stock and reorder when inventory drops to a specified level;
14. Control product's quality;
15. Respond to customers' feedback;

16. Conduct supplier performance analysis;
17. Determine staffing requirements and hire or oversee hiring of staff;
18. Manage staff and assign duties;
19. Monitor workers performance; and
20. Perform related tasks.

Notes:

* Critical job title

- Referring to existing NOSS K-022-5 Fashion & Apparel Manager

APPAREL MANUFACTURING

LEVEL 5

APPAREL MERCHANDISING MANAGER

AN APPAREL MERCHANDISING MANAGER IS DESIGNATED TO PLAN, ORGANISE, DIRECT, CONTROL AND EVALUATE THE APPAREL MERCHANDISING ACTIVITIES. THE PERSON ALSO PERFORM A WIDE RANGE OF MANAGEMENT ACTIVITIES.

An Apparel Merchandising Manager will be able to:

1. Research product range;
2. Carry out market competitions analysis;
3. Carry out marketing strategy arrangement;
4. Acquire local authority approval;
5. Formulate production cost structure;
6. Analyse production line;
7. Evaluate production specification;
8. Carry out quality improvement;
9. Respond to customer feedback;
10. Conduct supplier performance analysis;
11. Coordinate quality audit;
12. Manage manpower;
13. Verify Inspection Report for authorization for shipment;
14. Communicates with other departments;
15. Conduct Training Needs Analysis at organizational level;
16. Develop, manage and promote training;
17. Manage changes and influence workplace culture;
18. Supervise, support and develop subordinates;

19. Exercise leadership at workplace;
20. Plan, organize and develop quality improvement activities.
21. Recommend personnel actions such as hiring and promotions; and
22. Perform related tasks.

APPAREL MANUFACTURING

LEVEL 5

APPAREL DESIGN MANAGER

AN APPAREL DESIGN MANAGER IS DESIGNATED TO MANAGE OVERALL ASPECT IN DESIGN AND SAMPLE SECTION INCLUDING MONITORING OF PROJECTS, LIASING WITH MARKETING STAFF, APPAREL DESIGNING ACTIVITIES, SAMPLE MAKING AND MONITOR DAY TO DAY ACTIVITIES.

An Apparel Design Manager will be able to:

1. Attends fashion shows and reviews garment magazines and manuals to analyse fashion trends, predictions, and consumer preferences;
2. Monitor projects and design developments assigned to designers;
3. Monitor sample making works;
4. Liase with sales and marketing staff, and production team on design matters and meeting deadlines;
5. Develop network of business contact with clients and potential clients;
6. Research and gather information on target markets;
7. Manage, monitor and coordinate design department;
8. Manage costing, marketing, finances and day-to-day production activities;
9. Conduct Training Needs Analysis at organizational level;
10. Develop, manage and promote training;
11. Manage changes and influence workplace culture;
12. Supervise, support and develop subordinates;
13. Exercise leadership at workplace;
14. Plan, organize and develop quality improvement activities.
15. Recommend personnel actions such as hiring and promotions; and
16. Perform related tasks.

APPAREL MANUFACTURING

LEVEL 5

QUALITY ASSURANCE MANAGER

A QUALITY ASSURANCE MANAGER IS DESIGNATED TO PERFORM INSPECTION AND TESTING OF MATERIALS, WORK IN PROGRESS AND FINISHED PRODUCTS. THE PERSON ALSO PERFORM A WIDE RANGE OF MANAGEMENT ACTIVITIES.

A Quality Assurance Manager will be able to:

1. Approve Quality Policy and Quality Objective;
2. Approve and implement Quality System;
3. Set quality benchmark;
4. Review and verify of customer's requirements to ensure all requirements are met;
5. Manage quality assurance activities;
6. Compare quality report with product's specifications to ensure conformance to standards;
7. Communicates with other departments;
8. Conduct Training Needs Analysis at organizational level;
9. Develop, manage and promote training;
10. Manage changes and influence workplace culture;
11. Supervise, support and develop subordinates;
12. Exercise leadership at workplace;
13. Plan, organize and develop quality improvement activities.
14. Recommend personnel actions such as hiring and promotions; and
15. Perform related tasks.

APPAREL MANUFACTURING

LEVEL 5

APPAREL MANUFACTURING MACHINE MAINTENANCE MANAGER

AN APPAREL MANUFACTURING MACHINE MAINTENANCE MANAGER IS DESIGNATED TO PLAN, ORGANIZE, DIRECT, CONTROL AND EVALUATE THE MAINTENANCE DEPARTMENT WITHIN THE INDUSTRIAL FACILITIES. THE PERSON ALSO PERFORM A WIDE RANGE OF MANAGEMENT ACTIVITIES.

A n Apparel Manufacturing Machine Maintenance Manager will be able to:

1. Plan, organize, direct, control and evaluate the apparel manufacturing machine maintenance activities;
2. Confer with other department heads to plan maintenance programs and to schedule inspections and major overhauls in coordination with other operating activities;
3. Develop and implement schedules and procedures for safety inspections and preventive maintenance programs;
4. Oversee the leasing of space in the facility;
5. Oversee the installation, maintenance and repairing works including machinery, equipment and electrical and mechanical systems;
6. Plan and manage the facility's maintenance budget;
7. Administer contracts for the provision of supplies and services;
8. Prepare or oversee the preparation of reports and statistics related to areas of responsibility;
9. Communicates with other departments;
10. Conduct Training Needs Analysis at organizational level;
11. Develop, manage and promote training;

12. Manage changes and influence workplace culture;
13. Supervise, support and develop subordinates;
14. Exercise leadership at workplace;
15. Plan, organize and develop quality improvement activities.
16. Recommend personnel actions such as hiring and promotions; and
17. Perform related tasks.

INDUSTRIAL ENGINEERING

INDUSTRIAL ENGINEERING

LEVEL 2

***INDUSTRIAL ENGINEERING TECHNICIAN**

AN INDUSTRIAL ENGINEERING TECHNICIAN IS DESIGNATED TO ASSIST INDUSTRIAL SENIOR TECHNICIAN TO PROVIDE TECHNICAL SUPPORT AND SERVICES IN THE DEVELOPMENT OF PRODUCTION METHODS, FACILITIES AND SYSTEMS, AND THE PLANNING, ESTIMATING, MEASURING AND SCHEDULING OF WORK.

An Industrial Engineering Technician will be able to:

1. Carry out work study to determine best method to perform job;
2. Carry out time study to determine time required to perform job;
3. Prepare job SOP for training purposes;
4. Determine standard rate for job;
5. Assist in the design of plant layout;
6. Aid in planning work assignments in accordance with worker performance, machine capacity, production schedules, and anticipated delays;
7. Collect data and samples;
8. Observe worker using equipment to verify that equipment is being operated and maintained according to SOP;
9. Perform related tasks.

Note:

* Critical job title

INDUSTRIAL ENGINEERING

LEVEL 3

***INDUSTRIAL ENGINEERING SENIOR TECHNICIAN**

AN INDUSTRIAL ENGINEERING TECHNICIAN IS DESIGNATED TO PROVIDE TECHNICAL SUPPORT AND SERVICES IN THE DEVELOPMENT OF PRODUCTION METHODS, FACILITIES AND SYSTEMS, AND THE PLANNING, ESTIMATING, MEASURING AND SCHEDULING OF WORK.

An Industrial Engineering Senior Technician will be able to:

1. Design plant layout;
2. Verify work study to determine best method to perform job;
3. Verify time study to determine time required to perform job;
4. Verify job SOP for training purposes;
5. Verify standard rate for job;
6. Analyse data and samples;
7. Develop manufacturing and processing procedures and variables, set machine or equipment controls, oversee production and inspect processes;
8. Observe worker using equipment to verify that equipment is being operated and maintained according to quality assurance standards;
9. Analyse effectiveness of safety systems or procedures;
10. Analyse engineering design problems;
11. Analyse technical data, designs, or preliminary specifications; and
12. Perform related tasks.

Note:

* Critical job title

INDUSTRIAL ENGINEERING

LEVEL 4

***INDUSTRIAL ENGINEERING ASSISTANT TECHNOLOGIST**

AN INDUSTRIAL ENGINEERING ASSISTANT TECHNOLOGIST IS DESIGNATED TO ASSIST INDUSTRIAL ENGINEERING TECHNOLOGIST TO PLAN UTILIZATION OF FACILITIES, EQUIPMENT, MATERIALS, AND PERSONNEL TO IMPROVE EFFICIENCY OF OPERATIONS. THE PERSON ALSO PERFORM LIMITED MANAGEMENT ACTIVITIES.

An Industrial Engineering Assistant Technologist will be able to:

1. Study functional statements, organization charts, and project information to determine functions and responsibilities of workers and work units and to identify areas of duplication;
2. Analyse work force utilization, facility layout, and operational data;
3. Recommend methods for improving worker efficiency and reducing waste of materials and utilities;
4. Confer with management and engineering staff to implement plans and recommendations;
5. Analyse engineering design problems;
6. Evaluate data and write reports to validate or indicate deviations from existing standards;
7. Control company or department budget;
8. Resolve work-related problems;
9. Perform hiring and training activities;
10. Prepare various types of report; and
11. Perform related tasks.

Note:

* Critical job title

INDUSTRIAL ENGINEERING

LEVEL 5

***INDUSTRIAL ENGINEERING TECHNOLOGIST**

AN INDUSTRIAL ENGINEERING TECHNOLOGIST IS DESIGNATED TO PLAN UTILIZATION OF FACILITIES, EQUIPMENT, MATERIALS, AND PERSONNEL TO IMPROVE EFFICIENCY OF OPERATIONS. THE PERSON ALSO PERFORM A WIDE RANGE OF MANAGEMENT ACTIVITIES.

An Industrial Engineering Technologist will be able to:

1. Study functional statements, organization charts, and project information to determine functions and responsibilities of workers and work units and to identify areas of duplication;
2. Confer with management and engineering staff to implement plans and recommendations;
3. Develop management control systems;
4. Develop wage and salary administration systems and job evaluation programs;
5. Design or improve systems for the physical distribution of goods and services;
6. Verify data and reports to validate or indicate deviations from existing standards;
7. Communicates with other departments;
8. Conduct Training Needs Analysis at organizational level;
9. Develop, manage and promote training;
10. Manage changes and influence workplace culture;
11. Supervise, support and develop subordinates;
12. Exercise leadership at workplace;
13. Plan, organize and develop quality improvement activities.
14. Recommend personnel actions such as hiring and promotions; and
15. Perform related tasks.

Note:

* Critical job title

Department of Skills Development
Level 7 & 8, Block D4, Complex D,
Federal Government Administrative Centre,
62530, Wilayah Persekutuan Putrajaya
Tel : 603-8886 5000
Fax : 603-8889 2423
Email : jpk@mohr.gov.my

Department Of Skills Development
Blok 4803, Suite 0-10,
Bangunan CDB Perdana
Persiaran Flora, 63000 Cyberjaya
Selangor Darul Ehsan.
Tel : 03-8321 4700
Fax : 03-8321 4888

Department of Skills Development
Central Region
Ministry of Human Resources,
A305-7 & A301-2, West Tower,
Wisma Consplant 2,
No. 2, Jalan SS 16/4,
47500 Subang Jaya, Selangor Darul Ehsan.
Tel : 03-56359995
Fax : 03-56388777 / 03-56381113
Email : jpkcentral@mohr.gov.my

Jabatan Pembangunan Kemahiran
Wilayah Selatan
Kementerian Sumber Manusia,
Aras 18, Menara KWSP, Jalan Dato' Dalam
80000 Johor Bahru, Johor
Tel : 07-2226503
Fax : 07-2226607
Email : jpkselatan@mohr.gov.my

Jabatan Pembangunan Kemahiran
Wilayah Sarawak,
Kementerian Sumber Manusia
No.11-01 & 11-02, Level 11
Gateway Kuching, Jalan Bukit Mata
93100 Kuching, Sarawak
Tel : 082-420257/70/73
Fax : 082-420278
Email : jpkswk@mohr.gov.my

Jabatan Pembangunan Kemahiran
Wilayah Utara
Kementerian Sumber Manusia
Lot MZ.03 & MZ.04, Tingkat Mezzanin
Bangunan KWSP, No. 3009,
Off Lebuh Tenggiri 2,
Bandar Seberang Jaya,
13700 Seberang Jaya, Pulau Pinang.
Tel : 04-3809400/1/2
Faks : 04-3809413
Email : jpkutara@mohr.gov.my

Jabatan Pembangunan Kemahiran
Wilayah Timur,
Kementerian Sumber Manusia
Tingkat 6, Wisma MAIDAM
Jalan Banggol
20100 Kuala Terengganu,
Terengganu Darul Iman.
Tel : +609-6265500
Fax : +09-6265502 /
09-6265503
Email : jpktimur@mohr.gov.my

Jabatan Pembangunan Kemahiran
Wilayah Sabah
Kementerian Sumber Manusia
Lot A6.2 & A6.3, Tingkat 6
Blok A, Bangunan KWSP,
Jalan Karamunsing,
88598 Kota Kinabalu, Sabah
Tel : 088-270420/413
Fax : 088-270424
Email : jpksbh@mohr.gov.my

Pusat Latihan Pengajar dan
Kemahiran Lanjutan(CIAST)
Peti Surat 7012, Jalan Petani 19/1
Seksyen 19, 40900 Shah Alam, Selangor
Tel : 03-5543 8200
www.ciast.gov.my

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