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Menjana Pembangunan K-Pekerja

OCCUPATIONAL STRUCTURE

Machinery And Equipment Industry





Menjana Pembangunan K-Pekerja

OCCUPATIONAL STRUCTURE FOR

MACHINERY AND EQUIPMENT INDUSTRY

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Ministry of Human Resources, Malaysia

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EXECUTIVE SUMMARY

Machinery & Equipment Industry sector is expanding well in the service sector and it has gained the government's attention to support its development. The services sector is a major contributor to the growth of the Malaysian economy. The sector assumes an important intermediary role of supporting machinery and equipment industry in most sectors of the economy and the sector has generated the large number of employment opportunities. Apart from the products and services offered, the manufacturing industry is really dependent on the people's quality and skills in ensuring the success of the industry.

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 Machinery & Equipment Industry sector to evaluate the requirement of skilled manpower in this sector. In conducting the Occupational Analysis on the Machinery & Equipment Industry sector, the information was gathered through literature search, interviews with the industry experts and players from the industry. 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 Machinery & Equipment Industry sector has led the team to identify 18 job areas under 8 main sub sectors. These job areas cover 181 job titles identified in this sector. The hierarchy of each job title is identified and their definition is well defined by the panels.

Lack of skilled workers is identified as one of the factors affecting the Machinery & Equipment Industry sector, especially skilled workers at middle level and below. Thus, efforts and necessary actions need to be taken to rectify this situation. Efforts to conduct occupational analysis in this sector followed by the development of National Occupational Skills Standard by the Department of Skills Development are considered timely and critical to overcome this situation.

National Occupational Skill Standard (NOSS)

Definition:- A NOSS is defined as a specification of the competencies expected of a skill worker who is gainfully employed in Malaysia for an occupational area and level.

CONCEPT AND STRUCTURE OF MALAYSIAN SKILL CERTIFICATION SYSTEM

Type of Skill Certification

SKM Level 5 - Management Level
(Diploma/Advance Diploma Technology)

'Competent in applying a significant range of fundamental principles and complex techniques across a wide and often unpredictable variety of contexts. Very substantial personal autonomy and often significant responsibility for the work of others and for the allocation of substantial resources feature strongly, as do personal accountabilities for analysis and diagnosis, design, planning, execution and evaluation.'

SKM Level 4 - Supervisory Level
(Diploma/Diploma Technology)

'Competent in performing a broad range of complex technical or professional work activities performed in a wide variety of contexts and with a substantial degree of personal responsibility and autonomy. Responsibility for the work of others and allocation of resources is often present.'

SKM Level 3 - Supervisory Level
(Malaysian Skill Certificate)

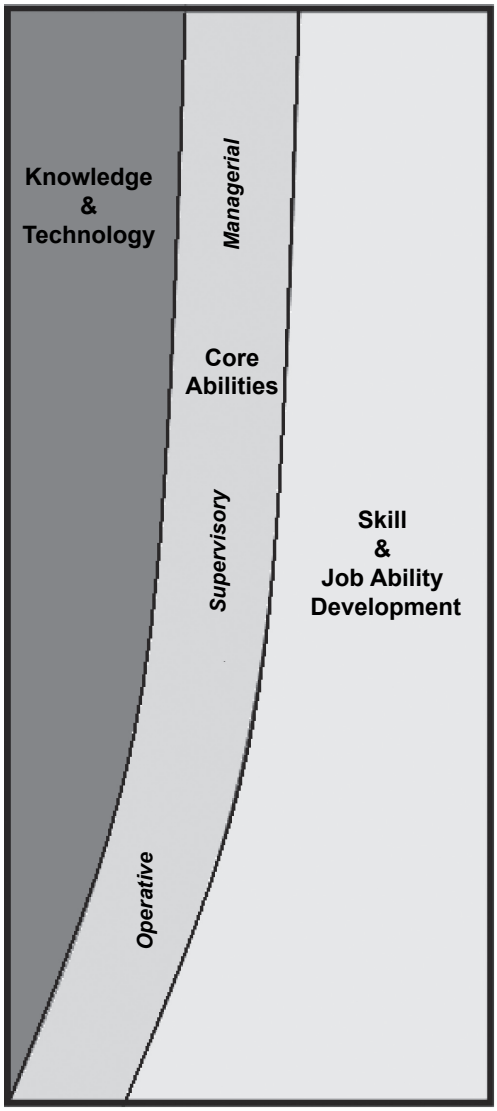
'Competent in performing a broad range of varied work activities, performed in a variety of context, most of which are complex and non-routine. There is considerable responsibility and autonomy and control or guidance of others is often required.'

SKM Level 2 - Operation and Production Level
(Malaysian Skill Certificate)

'Competent in performing a significant range of varied work activities, performed in a variety of context. Some of the activities are non-routine and required individual responsibility and autonomy.'

SKM Level 1 - Operation and Production Level
(Malaysian Skill Certificate)

'Competent in performing a range of varied work activities, most of which are routine and predictable.'



UNITED KINGDOM QUALIFICATION FRAMEWORK

Framework Level	Level Indicators
Entry	Entry level qualifications recognise basic knowledge and skills and the ability to apply learning in everyday situations under direct guidance or supervision. Learning at this level involves building basic knowledge and skills and is not geared towards specific occupations.
1	Level 1 qualifications recognise basic knowledge and skills and the ability to apply learning with guidance or supervision. Learning at this level is about activities which mostly relate to everyday situations and mat be linked to job competence.
2	Level 2 qualifications recognise the ability to gain a good knowledge and understanding of a subject area of work or study, and to perform varied tasks with some guidance or supervisions. Learning at this level involves building knowledge and/or skills in relation to an area of work or a subject area and is appropriate for many job roles.
3	Level 3 qualifications recognise the ability to gain, and where relevant apply a range of knowledge, skills and understanding. Learning at this level involves obtaining detailed knowledge and skills. It is appropriate for people wishing to go to university, people working independently, or in some areas supervising and training others in their field of work.
4	Level 4 qualifications recognise specialist learning and involve detailed analysis of high level of information and knowledge in an area of work or study. Learning at this level is appropriate for people working in technical and professional jobs, and/or managing and developing others. Level 4 qualifications are at a level equivalent to Certificates of Higher Education.
5	Level 5 qualifications recognise the ability to increase the depth of knowledge and understanding of an area of work or study to enable the formulation of solutions and response to complex problems and situations. Learning at this level involves the demonstration of high levels of knowledge, a high level of work expertise in job roles and

	competence in managing and training others. Qualifications at this level are appropriate for people working as higher grade technicians, professionals or managers. Level 5 qualifications are at a level equivalent to intermediate higher education qualifications such as Diplomas of Higher Education, Foundation and other degrees that do not typically provide access to post graduate programmes.
6	Level 6 qualifications recognise a specialist high level knowledge of an area of work or study to enable the use of an individual's own ideas and research in response to complex problems and situations. Learning at this level involves the achievement of a high level of professional knowledge and is appropriate for people working as knowledge-based professionals or in professional management positions. Level 6 qualifications are at a level equivalent to Bachelors degrees with honours, graduate certificates and graduates diplomas.
7	Level 7 qualifications recognise highly developed and complex levels of knowledge which enable the development of in-depth and original responses to complicated and unpredictable problems and situations. Learning at this level involves the demonstration of high level specialist professional knowledge and is appropriate for senior professionals and managers. Level 7 qualifications are at a level equivalent to Masters degrees, post graduate certificates and postgraduate diplomas.
8	Level 8 qualifications recognise leading experts or practitioners in a particular field. Learning at this level involves the development of new and creative approaches that extend or redefine existing knowledge or professional practice.

Figure 2.2: Proposed Competencies and Skill Qualification Certification

MACHINERY AND EQUIPMENT INDUSTRY

INDUSTRY OVERVIEW

The machinery and equipment industry assumes an important role in the industrial development of the country, in view of its extensive linkages to major economic sectors, such as manufacturing, construction, transportation, mining and agriculture. The industry produces a wide variety of machinery and equipment for various uses, such as power generation, specific industry processing, metalworking and general industrial activities. The industry supports a large number of Small and Medium Enterprises (SMEs), which are capable of producing machinery and equipment for both domestic and export markets. In turn, the industry is supported by a wide range of important engineering services, which mainly involve SMEs. These engineering services cover machining; metal casting; sheet metal working; heat treatment; general fabrication; design, development and prototyping; and testing and certification services.

The industry expanded during the period of the Second Industrial Master Plan (IMP2), 1996-2005, in tandem with the growth of the manufacturing and agriculture sectors, especially Electrical and Electronics (E&E), automotive and agro-based industries. The industry has also progressed towards the production of high technology and high value-added machinery and equipment for the Electrical and Electronics (E&E), agriculture and agro-based, and other resource based industries. The production of such machinery and equipment utilises both imported technologies (through joint ventures, technology transfers and technology acquisitions) and technologies developed locally. The industry has achieved some degree of import substitution and exporting in areas where it has the competitive advantage. Nevertheless, the industry continues to depend on imports of highly automated production machinery and equipment for the (E&E) and automotive industries, as well as a wide range of general industrial machinery and equipment not produced locally.

During the period of the Third Industrial Master Plan (IMP3), 2006-2020, the industry is expected to expand further, in tandem with the growth of the major economic sectors, in particular, manufacturing and agriculture. The industry will focus on the development of high technology machinery and equipment, and specialised machinery and equipment for specific industries. The industry

will capitalise on its strength, in terms of high quality production and emerging innovative capabilities. While production will continue to meet domestic demand, the export market will provide the impetus for the continued growth of the industry.

Structure of the Industry

Under the IMP3, machinery and equipment industry is broadly grouped under four main categories:

- power generating machinery and equipment, including electric generating sets, turbines, engines, boilers and power plants.

- specialised machinery and equipment for specific industries, which is further divided into major sub-categories, such as machinery and equipment for agriculture, food and beverage, Electrical and Electronics (E&E), oil and gas, woodworking and plastic processing.

- metalworking machinery and equipment, which include: - metal-cutting computer numerical control (CNC) machine tools, such as milling machines, lathe machines and electro-discharge machines; and metal-shaping and sheet-metal working machine tools, such as shearing and slitting machines, turret punches, laser cutting machines, press brakes, and hydraulic and power presses; and

- general industrial machinery and equipment, which include elevators, air conditioning plants, cranes, pressure vessels, cooling towers and construction machinery and equipment.

In addition, machinery and equipment parts and components form an integral part of the industry. These parts and components, which include moulds and dies, jigs and fixtures, actuators, motors, gear boxes and control systems, are required by all the four main categories.

Investments

Total approved investments in the industry during the IMP2 period amounted to RM4.9 billion, of which RM2.6 billion or 52 per cent comprised domestic investments and RM2.3 billion (48 per cent), foreign investments. A total of 555 projects were approved, with a proposed employment of 27,885 persons.

Main categories which attracted most of the investments were specialised machinery and equipment, and general industrial machinery and equipment. Together, they accounted for about 87 per cent of the total investments and 90 per cent of the approved projects. Investments in specialised machinery and equipment for specific industries registered an increase of 142.7 per cent, from RM607 million in the first phase of the IMP2 period (1996-2000) to RM1.5 billion in the second phase (2001-2005). This reflected a shift by the industry towards the production of high technology and high value-added machinery and equipment for the Electrical and Electronics (E&E), agriculture and agro-based and other resource based industries.

Imports and Exports

During the IMP2 period, Malaysia continued to rely on imports to supplement its requirements for machinery and equipment. Imports increased by an average annual rate of 1.5 per cent, from RM26.7 billion in 1996 to RM32.4 billion in 2005. These were mainly machinery and equipment which Malaysia did not have the capacities to manufacture, due to either the advanced technological requirements or the wide-ranging needs of industries, such as oil and gas, Electrical and Electronics (E&E), textiles and agro-based industries.

While the country continued to rely on imports for a wide range of machinery and equipment not manufactured locally, an increasing number of local manufacturers have been able to expand into the export market. Exports of machinery and equipment increased more than three-fold, from RM5.1 billion in 1996 to RM18.3 billion in 2005. Major categories of machinery and equipment exported were general industrial and specialised machinery and equipment, mainly to the People's Republic of China, Singapore, Thailand and the United States of America (USA).

Prospects

The future development of the industry in Malaysia will be driven by technological advances, process specialisation and customer requirements for shorter throughput times, faster delivery and lower costs. These demands will compel manufacturers to leverage upon their strengths in core activities, such as Research and Development (R&D), software development, system integration, assembly and testing and calibration. The more capital-intensive manufacturing of parts and components, and modules will need to be outsourced to keep

costs low. Increases in demand and costs of production will necessitate further outsourcing of assembly and testing and calibration operations to Original Equipment Manufacturer (OEM) companies.

With increasing competition from lower cost producing countries, the industry is expected to gradually phase out the manufacture of low-end machinery and equipment. In turn, it will strengthen its design, development and innovation capabilities in the production of high technology machinery and equipment, and specialised machinery and equipment for specific industries. Malaysia has a distinct cost advantage vis-à-vis most developed countries in the manufacture of high technology and specialised machinery and equipment, in both the domestic and export markets. Local machinery and equipment manufacturers have the capability to adopt, upgrade and further develop existing technologies to higher levels.

Machinery and equipment which have the potential for regional and global markets include:

- **regional market**
  machine tools, moulds and dies, plastics processing machinery and equipment, robotics and automation equipment, food processing machinery and equipment, and medical devices and equipment; and

- **global market**
  machinery and equipment for the Electrical and Electronics (E&E), oil and gas, palm oil and rubber processing industries; cranes; elevators; machinery and equipment modules, parts and components; and complete processing plants. Presently, these machinery and equipment are supplied to the regional market and have acquired international recognition.

METHODOLOGY OF OCCUPATIONAL ANALYSIS IN MACHINERY AND EQUIPMENT INDUSTRY

In conducting the occupational analysis, several brainstorming sessions were held primarily to strategise the plan of action in accordance with guidelines as presented by Jabatan Pembangunan Kemahiran (JPK) in term of scope of study, time frame and representation by panel of machinery and equipment experts as stipulated in the letter of offer.

After several discussion and brainstorming sessions, a plan of action was formulated taking into consideration the activities and time frame required.

Literature search

As outlined by the guidelines, a literature search on the machinery and equipment industry was carried out to get some insight on the scope, policy, program, activities in the context of Malaysian scenarios and international challenges. The scope covered under this search includes definitions, current analysis of the sector/sub-sector, current status of the machinery and equipment sector, skilled workers requirement in the local industry and the industrial demand at international level.

Identifying industry & public players

The literature search findings were used as a guide to identify the scope of occupational study and analysis.

Based on the Malaysian Machinery and Equipment Directory, players from Malaysian Institute of Road Safety Research (MIROS), Automotive Manufacturing, Air Conditioning Manufacturing, Aviation, Locomotive and Maritime sub-sector were identified and short listed for further communication and contact.

Besides site visit, more data and information were gathered from the key player's related to machinery and equipment sector at MIDA website.

Established contact with the Machinery and Equipment Industrial players

A pool of machinery and equipment experts form the industry and public sector has been contacted. Some kind of working relationship has been established with these experts.

Information gathering and Analysis

The first brainstorming session was held on 22 June 2008 at Singgahsana Hotel Petaling Jaya. Another session had been conducted at the later stage to collect and analyse the information related to machinery and equipment industries. A total of 17 experts in the field of machinery and equipment industry attended the workshop. The objectives of the workshop are:

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

Based on the activities done, substantial data and information were collected. The data and information were discussed and analysed in several in-house workshop attended by selected key persons or experts in machinery and equipment industry players.

From the sessions, the machinery and equipment industry and its sub-sectors in Malaysia were reframed using the following chart.

i. Scope of the machinery and equipment sector and its sub-sector
ii. Main job area
iii. Job title
iv. Hierarchy structure (Level 1 – 6: Established)
(Level 7 – 8: Not available yet)
v. Occupational definition

*Notes:

Critical job area

- Refer to job area title where currently our country dependent to foreign worker.
- Refer to job area where nationally lack of qualified skill worker/ knowledge worker.

Non critical job

- Refer to job area/title which nationally we have sufficient skill worker.

This Occupational Analysis document only covered the area of Machinery and Equipment industries as stipulated in IMP3. Therefore, job titles identified mainly covered the area of Power Generating M&E, Specialised

M&E, Metal Working M&E and General Industries M&E. The related job titles in area of Metal Stamping, Heat Treatment, Surface Treatment and Metal Fabrication were not included in this document, since it was categorized under Engineering Support industry.

FINDINGS

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

Job Title and Hierarchy

In the Occupational Analysis conducted for Machinery & Equipment Industry sector, the job title and hierarchy are defined from the current practice in the industry. Details of Job Title and Hierarchy in Machinery & Equipment Industry sector are explained in *Annex 3 Job Titles and Hierarchy in Machinery & Equipment Industry Sector*.

Occupational Definition

Each sub-sector in the Machinery & Equipment Industry is further refined by identifying and defining the job titles involved. Each job title is given an occupational definition as specified in *Annex 4 Occupational Definitions in Machinery & Equipment Industry Sector*.

REFERENCES:

1. Third Industrial Master Plan (IMP3)
2. MIDA Website
3. Jobstreet Malaysia
4. Rancangan Malaysia Ke 9 (RMK9)
5. Jobsdescription.org
6. www.prospects.ac.uk
7. Federation of Malaysia Manufacturer (FMM)

Annex 1

List of Panel Expert for the Development of Occupational Analysis for Machinery and Equipment Industry Sector

LIST OF COMMITTEE MEMBERS FOR OCCUPATIONAL ANALYSIS FOR MACHINERY AND EQUIPMENT INDUSTRY

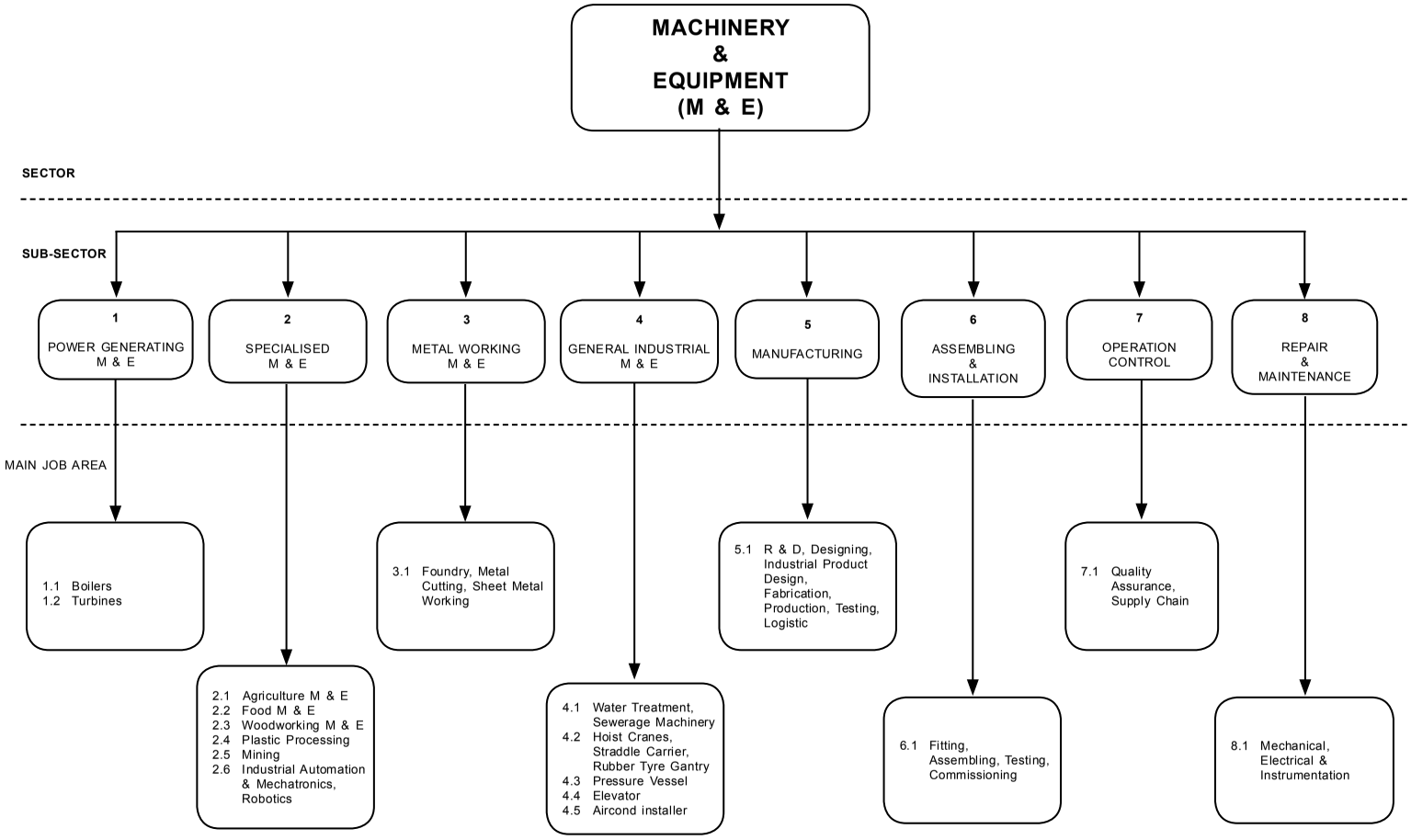
PANEL/INDUSTRIAL EXPERT				
No.	**Name**	**Company**	**Designation**	**Specialization Area**
1	Mohd Razmi Ibrahim	Nolaid KL	EDM Machinist	Metal Working
2	Mohd Zuraini Abdul Wahab	SIRIM Bhd.	Senior Engineer	General Industrial M&E
3	Baharudin Saad	Flextronic Mobile	Engineer	Maintenance Works
4	Hamed Abdullah	Sapura Machining Corp	Assistant Manager	Metal Working
5	Zalaludin Selamat	Sapura Industrial Bhd.	Manager	Fabrication, Production
6	Ani Haryati Abdul Aziz	SIRIM Bhd.	Engineer	Quality Assurance, Testing & Commissioning
7	Tiew Biaw Sing	SHE Resources	Manager	Water Treatment Services
8	Tengku Mohd Azlin	Sapura Tech Centre	Engineer	R&D, Assembly & Testing
9	Mohd Muhiddin	UiTM	Head of Technical Department	R&D, Plastic Processing
10	Hasnol Azhari	KTMB	Executive	Logistic

PANEL/INDUSTRIAL EXPERT				
No.	**Name**	**Company**	**Designation**	**Specialization Area**
11	Zainudin Elias	Budiman Dinamik Sdn. Bhd.	Manager	Human Resources, Purchasing
12	Azhar Hamzah	Malaysian Institute of Road Safety Research (MIROS)	Officer	Transportation
13	Mohd Khairi	Sapura Machining Corp.	Executive	Metal Working, Machining
14	Othman Zakaria	Teck See Plastic	Senior Manager	Mould & Die, Metal Working
15	Suhaimi Khalid	Strive Technologies	Senior Technician	Sheet Metal, Metal Working
16	Mahazir Ismail	GMI	Officer	Sheet Metal, Metal Working
17	Mohd Zaki Husin	Golden Hope Plantation	Plant Manager	Boiler/ Turbine, Water Treatment
FACILITATOR				
1	Abdul Hadi Che Wail	ADIMEGA Sdn Bhd.	Managing Director	
PROOF READER				
1	Abu Musa	UNITAR	English Lecturer	

Annex 2

Industrial Chart for Machinery and Equipment Industry Sector

CHART OF SUB-SECTOR AND JOB AREA FOR MACHINERY AND EQUIPMENT INDUSTRY



Annex 3

Job Titles and Hierarchy in Machinery and Equipment Industry Sector

1.1) POWER GENERATING M & E (BOILER/TURBINE)

Level	BOILER	TURBINE
L8	*Not Available*	
L7	*Not Available*	
L6	*Not Available*	
L5	* Power Plant Manager	
L4	* Power Plant Executive	
L3	* Power Plant Supervisor	
L2	* Boiler Senior Operator	* Turbine Senior Operator
L1	* Boiler Operator	* Turbine Operator

** Critical Job Titles*

2.1) SPECIALISED M & E (AGRICULTURE MACHINERY)

Level	HARVEST EQUIPMENT
L8	*Not Available*
L7	*Not Available*
L6	*Not Available*
L5	* Agricultural Machinery Manager
L4	* Agricultural Machinery Executive
L3	* Agricultural Machinery Supervisor
L2	* Senior Harvester Operator
L1	* Harvester Operator

** Critical Job Titles*

2.2) SPECIALISED M & E (FOOD PROCESSING MACHINERY)

Level	DAIRY	FISH AND MEAT	BAKERY	BEVERAGE	SUGAR PROCESSING AND REFINERY	HERBAL	FLOUR, RICE PROCESSING	TOBACCO PROCESSING
L8	*Not Available*							
L7	*Not Available*							
L6	*Not Available*							
L5	*Not Available*							
L4	*Not Available*							
L3	Dairy Plant Supervisor	Fish and Meat Plant Supervisor	Bakery Plant Supervisor	Beverage Plant Supervisor	Sugar Processing Plant Supervisor	Herbal Plant Supervisor	Flour, Rice Plant Supervisor	Tobacco Plant Supervisor
L2	Dairy Plant Leader	Fish and Meat Plant Leader	Bakery Plant Leader	Beverage Plant Leader	Sugar Processing Plant Leader	Herbal Plant Leader	Flour, Rice Plant Leader	Tobacco Processing Plant Leader
L1	*Not Available*							

* Pre-requisite:
  1) Dairy Plant Leader is to be qualified from general worker who has 2 years working experience in area of dairy plant.
  2) Fish and Meat Plant Leader is to be qualified from general worker who has 2 years working experience in area of fish and meat plant.
  3) Bakery Plant Leader is to be qualified from general worker who has 2 years working experience in area of bakery plant.
  4) Beverage Plant Leader is to be qualified from general worker who has 2 years working experience in area of beverage plant.

5) Sugar processing plant leader is to be qualified from general worker who has 2 years working experience in area of sugar processing.

6) Herbal Plant Leader is to be qualified from general worker who has 2 years working experience in area of herbal plant.

7) Flour, Rice Plant Leader is to be qualified from general worker who has 2 years working experience in area of flour, rice processing.

8) Tobacco Processing Plant Leader is to be qualified from general worker who has 2 years working experience in area of tobacco processing.

2.3) SPECIALISED M & E (WOODWORKING)

Level	TIMBER	PULP	PAPER
L8	*Not Available*		
L7	*Not Available*		
L6	*Not Available*		
L5	*Not Available*		
L4	*Not Available*		
L3	Timber Plant Supervisor	Pulp Plant Supervisor	Paper Plant Supervisor
L2	Timber Plant Leader	Pulp Plant Leader	Paper Plant Leader
L1	*Not Available*		

* Pre-requisite:
  1) Timber Plant Leader is to be qualified from general worker who has 2 years working experience in area of timber plant.
  2) Pulp Plant Leader is to be qualified from general worker who has 2 years working experience in area of pulp plant.
  3) Paper Plant Leader is to be qualified from general worker who has 2 years working experience in area of paper plant.

2.4) SPECIALISED M & E (PLASTIC PROCESSING)

Level	Injection Moulding	Extrusion Moulding-Pipe & Profile	Rotational Moulding	Compression Moulding	Blow Moulding
L8	*Not Available*				
L7	*Not Available*				
L6	Plastic Plant Senior Manager				
L5	J-020-5 Plastic Production Manager				
L4	J-020-4 Assistant Plastic Production Manager				
L3	J-010-3 *Plastic Production Supervisor-“Injection Moulding”	J-011-3 *Plastic Production Supervisor--“Extrusion-Pipe & Profile”	J-012-3 *Plastic Production Supervisor--“Rotational Moulding”	J-013-3 *Plastic Production Supervisor--“Compression Moulding”	J-014-3 *Production Supervisor-“Blow Moulding”
L2	J-010-2 *Plastic Production Line Leader-“Injection Moulding”	J-011-2 *Plastic Production Line Leader -“Extrusion-Pipe & Profile”	J-012-2 *Plastic Production Line Leader -“Rotational Moulding”	J-013-2 *Plastic Production Line Leader -“Compression Moulding”	J-014-2 *Production Line Leader - “Blow Moulding”

L1	J-010-1 *Plastic Production Operator- “Injection Moulding”	J-011-1 *Plastic Production Operator -“Extrusion- Pipe & Profile”	J-012-1 *Plastic Production Operator- “Rotational Moulding”	J-013-1 *Plastic Production Operator -“Compression Moulding”	J-014-1 *Production Operator - “Blow Moulding”

** Critical Job Titles*

2.5) SPECIALISED M & E (MINING MACHINERY)

Level	DREDGING	MINING	SMELTING
L8	*Not Available*		
L7	*Not Available*		
L6	*Not Available*		
L5	*Not Available*		
L4	*Not Available*		
L3	Dredging Supervisor	Mining Supervisor	Smelting Supervisor
L2	Dredging Operator	Mining Operator	Smelting Operator
L1	*Not Available*		

* Pre-requisite:
  1) Dredging Operator is to be qualified from general worker who has 2 years working experience in area of dredging.
  2) Mining Operator is to be qualified from general worker who has 2 years working experience in area of mining.
  3) Smelting Operator is to be qualified from general worker who has 2 years working experience in area of smelting.

2.6) SPECIALISED M & E (INDUSTRIAL AUTOMATION & MECHATRONICS)

Level	MECHATRONICS	INDUSTRIAL AUTOMATION
L8	*Not Available*	
L7	*Not Available*	
L6	*Not Available*	
L5	H-175-5 * Mechatronic Engineer	H-176-5 * Industrial Automation Engineer
L4	H-175-4 * Mechatronic Assistant Engineer	H-176-4 * Assistant Industrial Automation Engineer
L3	H-170-3 * Industrial Manufacturing Supervisor	
L2	H-170-2 * Industrial Manufacturing Technician	
L1	H-170-1 * Industrial Manufacturing Assistant	

** Critical Job Titles*

3.1) METAL WORKING M & E FOUNDRY, METAL CUTTING CNC & SHEET METAL WORKING

Level	FOUNDRY				METAL CUTTING CNC					SHEET METAL WORKING
L8	*Not Available*									
L7	*Not Available*									
L6	*Not Available*									
L5	G-070-5 Foundry Manager				H-050-5 Manufacturing Engineer (CAD/CAM/CAE)					
L4	G-070-4 Mould Executive				H-050-4 Assist. Manufacturing Engineer (CAD/CAM/CAE)					
L3	G-090-3 * Foundry Technician (Pattern Making)	G-080-3 * Foundry Technician (Mould & Core Making)	G-070-3 * Foundry Technician (Melting)	G-100-3 * Foundry Technician (Die Casting)	Machinist EDM Wire cut	H-014-3 * Machinist - Lathe Turning Operation	H-015-3 * Machinist - Milling Operation	H-016-3 * Machinist - Grinding Operation	H-013-3 * 'Computer Numerical Control' (CNC) Technician	H-070-3 * Sheet Metal Senior Technician
L2	G-060-2 * Senior Foundryman				General Machinist EDM Wire Cut	H-014-2 * General Machinist-Lathe Turning Operation	H-096-2 * General Machinist-Milling Operation	H-097-2 * General Machinist-Grinding Operation	H-013-2 * CNC Machinist	H-070-2 * Sheet Metal Technician
L1	G-060-1 * Foundryman				H-017-1 * General Machinist					H-070-1 * Sheet Metal Fabricator

4.1) GENERAL INDUSTRIAL M & E (WATER TREATMENT AND SEWERAGE MACHINERY)

Level	WATER TREATMENT PLANT	SEWERAGE PLANT
L8	*Not Available*	
L7	*Not Available*	
L6	*Not Available*	
L5	*Not Available*	
L4	*Not Available*	
L3	Water Treatment Plant Supervisor	Sewerage Plant Supervisor
L2	Water Treatment Plant Operator	Sewerage Plant Operator
L1	*Not Available*	

* Pre-requisite:
    1. Water Treatment Plant Operator is to be qualified from general worker who has 2 years working experience in area of water treatment plant.

4.2) GENERAL INDUSTRIAL M & E (MATERIAL HANDLING)

Level	HOIST CRANE	STRADDLE CARRIER	RUBBER TYRE GANTRY
L8	*Not Available*		
L7	*Not Available*		
L6	*Not Available*		
L5	*Not Available*		
L4	*Not Available*		
L3	Senior Hoist Crane Operator	Senior Straddle Carrier Crane Operator	Senior Rubber Tyre Gantry Crane Operator
L2	Terminal Operator (Front End Loader & Reach Stacker)		
L1	*Not Available*		

* Pre-requisite:
    1. Terminal Operator (Front End Loader & Reach Stacker) is to be qualified from general worker who has 2 years working experience in area of straddle carrier.

4.3) GENERAL INDUSTRIAL M & E (PRESSURE VESSEL)

Level	INSPECTION	PRODUCTION	DESIGN
L8	*Not Available*		
L7	*Not Available*		
L6	*Not Available*		
L5	* Pressure Vessel Inspector	* Pressure Vessel Engineer	* Pressure Vessel Design Engineer
L4	* Pressure Vessel Junior Inspector	* Pressure Vessel Assistant Engineer	* Pressure Vessel Assistant Design Engineer
L3	* Senior Welder	* Senior Fitters	
L2	* Welder	* Fitters	
L1	*Not Available*		

* Pre-requisite

1. Welders to be qualified according to pressure vessel code requirement e.g. Department of Occupational Safety and Health (DOSH) or American Society Of Mechanical Engineers (ASME) requirement
2. Fitters to be qualified according to pressure vessel code requirement e.g. Department of Occupational Safety and Health (DOSH) or American Society Of Mechanical Engineers (ASME) requirement

4.4) GENERAL INDUSTRIAL M & E (ELEVATOR)

Level	ELEVATOR REPAIRER	ELEVATOR INSTALLER
L8	*Not Available*	
L7	*Not Available*	
L6	*Not Available*	
L5	*Not Available*	
L4	*Not Available*	
L3	Elevator Examiner And Adjuster *	Elevator Installation Supervisor *
L2	Elevator Repairer *	Elevator Installer *
L1	Elevator Repairer Helper *	Elevator Installation Helper *

* *Critical Job Titles*

4.5) GENERAL INDUSTRIAL M & E (AIR COND INSTALLER)

Level	AIRCOND INSTALLER
L8	*Not Available*
L7	*Not Available*
L6	*Not Available*
L5	*Not Available*
L4	*Not Available*
L3	Air Conditioning Installer Supervisor *
L2	Air Conditioning Tester *
L1	Air Conditioning Installer *

** Critical Job Titles*

5.1) MANUFACTURING (R&D, DESIGNING, FABRICATION, PRODUCTION, TESTING, LOGISTIC)

MANUFACTURING							
Level	**R&D**	**DESIGNING**	**INDUSTRIAL PRODUCT DESIGN**	**FABRICATION**	**PRODUCTION**	**TESTING**	**LOGISTIC**
8	*Not Available*						
7	*Not Available*						
6	Plant Senior Manager						
5	R&D and Design Manager			Fabrication Manager	Production Manager	Quality Manager	Logistic Manager
4	Researcher	Designer		Fabrication Executive	Production Executive	Analyst	Logistic Executive
3	Assistant Researcher	H-302-3 Assistant Designer	Industrial Product Design Senior Technician	Fabrication Supervisor	Production Supervisor	Laboratory Senior Technician	Logistic Supervisor
2	*Not Available*	H-302-2 Senior Draughtsman	(H-312-2) Industrial Product Design Technician	Fabrication Technician	Production Senior Operator	Laboratory Technician	Logistic Senior Operator
1	*Not Available*	H-302-1 Draughtsman	*Not Available*	Fabrication Operator	Production Operator	Laboratory Assistant	Logistic Operator

* Pre-requisite:

1. Minimum Qualification for L3 Assistant Researcher is diploma with 2 years working experience in R&D facilities.
2. Industrial Product Design Technician is to be qualified from general worker who has 2 years working experience in area of industrial product design.

6.1) ASSEMBLING & INSTALLATION (FITTING, ASSEMBLING, TESTING, COMMISIONING)

ASSEMBLING & INSTALLATION				
Level	**FITTING**	**ASSEMBLING**	**TESTING**	**COMMISIONING**
8	*Not Available*			
7	*Not Available*			
6	Plant Senior Manager			
5	Assembling & Installation Manager			
4	Fitting Executive	Assembly Engineer	Testing Specialist	Commissioning Specialist
3	Fitting Foreman	Assistant Assembly Engineer	Testing Assistant Specialist	Commissioning Assistant Specialist
2	Senior Fitter	Assembly Technician	*Not Available*	
1	Fitter	*Not Available*		

* Pre-requisite:

1. Assembly Technician is to be qualified from general worker who has 2 years working experience in area of assembling installation.
2. Minimum Qualification for L3 Testing Assistant Specialist is diploma with 2 years working experience in assembly installation works.
3. Minimum Qualification for L3 Commissioning Assistant Specialist is diploma with 2 years working experience in commissioning works.

7.1) OPERATION CONTROL (QUALITY ASSURANCE, SUPPLY CHAIN)

OPERATION CONTROL		
LEVEL	**QUALITY ASSURANCE**	**SUPPLY CHAIN**
8	*Not Available*	
7	*Not Available*	
6	Plant Senior Manager	
5	Quality Manager	Purchasing Manager
4	Quality Executive	Purchasing Executive
3	Quality Supervisor	Purchasing Supervisor
2	Quality Senior Inspector	Senior Store Keeper
1	Quality Inspector	Store Keeper

8.1) REPAIR AND MAINTENANCE (MECHANICAL, ELECTRICAL & INSTRUMENTATION)

REPAIR AND MAINTENANCE			
Level	**MECHANICAL**	**ELECTRICAL**	**INSTRUMENTATION**
8	*Not Available*		
7	*Not Available*		
6	*Not Available*		
5	Repair and Maintenance Manager		
4	Repair and Maintenance Executive		
3	Supervisor – Mechanical	C-051-3 Senior Electrical Technician	H-190-3 Senior Mechanical Precision Instrument Technician
2	Senior Mechanical Mechanic	C-051-2 Electrical Technician	H-190-2 Mechanical Precision Instrument Technician
1	Mechanical Mechanics	C-051-1 Junior Electrical Technician	H-190-1 Mechanical Precision Instrument Operator

Annex 4

Occupational Definitions in Machinery and Equipment Industry Sector

JOB TITLES

(POWER GENERATING M&E – BOILER & TURBINE)

LEVEL 1

BOILER OPERATOR

TURBINE OPERATOR

LEVEL 2

BOILER SENIOR OPERATOR

TURBINE SENIOR OPERATOR

LEVEL 3

POWER PLANT SUPERVISOR

LEVEL 4

POWER PLANT EXECUTIVE

LEVEL 5

POWER PLANT MANAGER

LEVEL 6

Not Available

LEVEL 7

Not Available

LEVEL 8

Not Available

LEVEL 1

BOILER OPERATOR

A BOILER OPERATOR IS DESIGNATED TO ENSURE COMPANY BOILER AND MACHINERY ARE IN GOOD ORDER, WORK UNDER INSTRUCTION OF SUPERVISOR AND ASSIST BOILER SENIOR OPERATOR IN ALL MACHINERY WORKS.

A BOILER OPERATOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Operates automatically fired boilers to generate steam that supplies heat or power for buildings or industrial processes.
2. Lights gas- or oil-fed burners, using torch.
3. Starts pulverizer and stoker to grind and feed coal into furnace of boiler.
4. Observes pressure, temperature and draft meters on panel to verify specified operation of automatic combustion control systems, feed water regulators, stoker, pulverizer and burners.
5. Turns valves and adjusts controls to set specified fuel feed, draft openings, water level, and steam pressure of boiler.
6. Observes boiler and auxiliary units to detect malfunctions and makes repairs, such as changing burners and tightening pipes and fittings.
7. May test and treat boiler feed water, using specified chemicals.
8. May maintain log of meter and gauge readings and record data, such as water test results and quantity of fuel consumed.
9. May be designated according to fuel burned, type of boilers or class of license required.

LEVEL 1

TURBINE OPERATOR

A TURBINE OPERATOR IS DESIGNATED TO ENSURE COMPANY TURBINE AND MACHINERY ARE IN GOOD ORDER, WORK UNDER INSTRUCTION OF SUPERVISOR AND ASSIST TURBINE SENIOR OPERATOR IN ALL MACHINERY WORKS.

A TURBINE OPERATOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Controls steam-driven turbo generators in power generating station.
2. Starts or signals auxiliary-equipment operator (utilities) to start turbines and boiler auxiliary units.
3. Adjusts throttle and vacuum-breaker valve to engage governor that regulates speed of turbines and notifies switchboard operator (utilities) that turbine-driven generators can be synchronized with auxiliary units.
4. Monitors panel board to control operations of turbines to detect equipment malfunctions.
5. Stops turbines when malfunctions occur, following operating instructions.
6. Records instrument readings at specified intervals.
7. May perform minor maintenance or equipment, using hand tools.
8. When controlling operation by remote control, may be designated Central-Control-Room Operator (utilities).

LEVEL 2

BOILER SENIOR OPERATOR

A BOILER SENIOR OPERATOR DESIGNATED TO SUPERVISING A GROUP OF SERVICEMAN TO ENSURE BOILER AND MACHINERY ARE IN GOOD ORDER, PREPARE ABNORMALITY REPORT TO SUPERVISOR, PREPARE RECORD OF ALL WORK PERFORMED AND ASSIST BOILER SUPERVISOR IN ALL MACHINERY WORKS.

A BOILER SENIOR OPERATOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY AS WELL AS OTHER HEAVY INDUSTRY.

In particular the person will:

1. Operate or tend low pressure stationary steam boilers and auxiliary steam equipment such as pumps, compressors and air conditioning equipment.
2. Supply steam heat for office buildings, apartment houses, or industrial establishments.
3. Maintain steam at specified pressure.
4. Generate and supply compressed air for operation of pneumatic tools, hoists and air lances.
5. Supervise a group of serviceman to ensure boiler and machinery are in good order.
6. Perform work base on work order.
7. Prepare report abnormality to supervisor.
8. Prepare record of all work performed.
9. Implement preventive maintenance.

LEVEL 2

TURBINE SENIOR OPERATOR

A TURBINE SENIOR OPERATOR DESIGNATED TO SUPERVISING A GROUP OF SERVICEMAN TO ENSURE TURBINE/BOILER AND MACHINERY ARE IN GOOD ORDER, PREPARE REPORT ABNORMALITY TO SUPERVISOR, PREPARE RECORD OF ALL WORK PERFORMED AND ASSIST TURBINE SUPERVISOR IN ALL MACHINERY WORKS.

A TURBINE SENIOR OPERATOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY

In particular the person will:

1. Supervise a group of serviceman to ensure turbine and machinery are in good order.
2. Perform work base on work order.
3. Prepare report abnormality to supervisor.
4. Prepare record of all work performed.
5. Implement preventive maintenance.
6. Operate and maintains a combined cycle generating facility and all associated auxiliary and support equipment.
7. Perform routine maintenance & repairs on equipment including tightening fittings, replacing valve packing, gaskets, valves, gauges and etc.
8. Diagnose cause of mechanical malfunction or failure of operational equipment.

LEVEL 3

POWER PLANT SUPERVISOR

A POWER PLANT SUPERVISOR IS DESIGNATED TO PERFORM WORK ACCORDING TO EXECUTIVE INSTRUCTION, SUPERVISE A GROUP OF TECHNICIAN OR WORKERS TO ENSURE BOILER, TURBINE AND MACHINERY ARE IN GOOD ORDER ASSIST TECHNICIAN ON TECHNICAL DIFFICULTY, WORKMANSHIP QUALITY CONTROL AND ASSIST POWER PLANT EXECUTIVES IN ALL MACHINERY WORKS.

A POWER PLANT SUPERVISOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY AS WELL AS OTHER HEAVY INDUSTRY.

In particular the person will:

1. Perform work according to executive instruction.
2. Supervise a group of boilerman or workers to ensure boiler, turbine and machinery are in good order.
3. Generate work order/job delegation to subordinate.
4. Check all maintenance report/record.
5. Supervise and assist boilerman on technical difficulty.
6. Organise quality control.
7. Train and ensure assigned employees are aware of and comply with company and government policies and procedures.
8. Communicate company objectives and customer expectations effectively to co-workers while always working towards the highest standards of safety, quality, efficiency and housekeeping.
9. Operate and maintain a combined cycle generating facility and all associated auxiliary and support equipment.
10. Operate, maintain, troubleshoot and repair mechanical equipment, electrical equipment and instrumentation.
11. Supervise routine maintenance and repair on equipment.

LEVEL 4

POWER PLANT EXECUTIVE

A POWER PLANT EXECUTIVE IS DESIGNATED TO ASSIST SENIOR EXECUTIVE AND SUPERVISE A GROUP OF SUPERVISORS OR WORKERS TO ENSURE BOILER, TURBINE AND MACHINERY ARE IN GOOD ORDER, TO ENSURE THE MACHINERY, MANPOWER AND MATERIAL ARE MEETING THE COMPANY CAPABILITIES & SUITABILITY REQUIREMENT AND ASSIST POWER PLANT MANAGER IN ALL MACHINERY WORKS.

A POWER PLANT EXECUTIVE MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY AS WELL AS OTHER HEAVY INDUSTRY.

In particular the person will:

1. Supervise a group of supervisors or workers to ensure boiler, turbine and machinery are in good order.
2. Manage and ensure the machinery, manpower and material are meeting the company capabilities & suitability requirement.
3. Check all maintenance report/record.
4. Monitor and assist supervisor on technical difficulty.
5. Prepare necessary report and improvement recommendations for management review.
6. Ensure adherence to company policies, procedures and practices.
7. Design, monitor and maintain a safe working environment by ensuring all safety requirements and quality control standards are met.
8. Cultivate a positive and innovative work environment.
9. Manage costs effectively related to plant operation.
10. Manage preventive maintenance tasks and records preventive maintenance activities.

11. Train and develop other employees in performing preventive maintenance and routine equipment service activities.
12. Practice situational leadership, safety and environmental stewardship.
13. Lead equipment or system problem identification and recommends solutions.
14. Develop operating procedures for plant equipment to ensure consistent and safe operation.

LEVEL 5

POWER PLANT MANAGER

A POWER PLANT MANAGER IS DESIGNATED TO PLAN AND CARRY OUT PROGRAMMES TOTAL PRODUCTIVE MAINTENANCE (TPM) FOR OPTIMUM OPERATION OF POWER PLANT, PREPARE ANNUAL BUDGET AND MONITOR EXPENDITURE, PREPARE STAFF PERFORMANCE AND DEVELOPMENT IN ALL MACHINERY WORKS.

A POWER PLANT MANAGER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY AS WELL AS OTHER HEAVY INDUSTRY.

In particular the person will:

1. Prepare necessary report and improvement recommendations for management review.
2. Plan and carry out programs (TPM) for optimum operation of power plant.
3. Prepare annual budget and monitor expenditure.
4. Prepare staff performance and development.
5. Manage and ensure the machinery, manpower and material are meeting the company capabilities & suitability requirement.
6. Train and develop other employees in performing preventive maintenance and routine equipment service activities.
7. Practice situational leadership, safety and environmental stewardship.
8. Develop operating procedures for plant equipment to ensure consistent and safe operation.
9. Manage preventive maintenance tasks and records preventive maintenance activities.
10. Train and develop other employees in performing preventive maintenance and routine equipment service activities.
11. Manage and ensure that appropriate safety procedures are followed.

JOB TITLES

(SPECIALISED M&E – AGRICULTURE MACHINERY)

LEVEL 1

HARVESTER OPERATOR

LEVEL 2

SENIOR HARVESTER OPERATOR

LEVEL 3

AGRICULTURAL MACHINERY SUPERVISOR

LEVEL 4

AGRICULTURAL MACHINERY EXECUTIVE

LEVEL 5

AGRICULTURAL MACHINERY MANAGER

LEVEL 6

Not Available

LEVEL 7

Not Available

LEVEL 8

Not Available

LEVEL 1

HARVESTER OPERATOR

A HARVESTER OPERATOR IS DESIGNATED TO ENSURE THE HARVESTER ARE SERVICEABLE AND FIT FOR OPERATION, OPERATION, OPERATE TRACTOR-DRAWN OR SELF-PROPELLED MACHINERY TO PLOUGH LAND AND FERTILISE, PLANT, CULTIVATE AND HARVEST CROPS, ADJUST SPEED, HEIGHT OR DEPTH OF IMPLEMENTS, CHECK SAFETY CONDITIONS AND AVOID DAMAGE TO PLANTS SERVICE AND MAINTAIN MACHINERY, HAND PRUNING AND ASSIST SENIOR HARVESTER OPERATOR IN ALL MACHINERY WORKS.

A HARVESTER OPERATOR MAY BE FOUND IN MACHINERY AND EQUIPMENT INDUSTRY SUCH AS AGRICULTURAL SUB SECTOR.

In particular the person will:

1. Perform inspection to ensure the harvesters are serviceable and fit for operation.
2. Participate all related training required.
3. Follow all standard operating procedure.
4. Report all incident and accident to Estate Manager.
5. Perform inspection to ensure the equipment according to the authority requirement.
6. Perform general housekeeping and continuous improvement of the appearance of the facility.
7. Perform routine maintenance and repair on equipment.
8. Perform trouble shooting, maintenance and repair equipments and instrumentation.
9. Prepare report abnormality to senior harvester operator.
10. Perform work base on work order.
11. Work under instruction/supervision of senior harvester operator.

LEVEL 2

SENIOR HARVESTER OPERATOR

A SENIOR HARVESTER OPERATOR IS DESIGNATED TO ASSIST WITH GROWING, MAINTAINING AND HARVESTING TIMBER PLANTATIONS, MAINTAIN TRACTOR-DRAWN OR SELF-PROPELLED MACHINERY TO PLOUGH LAND AND FERTILISE, PLANT, CULTIVATE AND HARVEST CROPS, ADJUST SPEED, HEIGHT OR DEPTH OF IMPLEMENTS, OPERATE A WIDE RANGE OF MECHANICAL HARVESTING EQUIPMENT, MAINTAIN FORESTRY EQUIPMENT AND VEHICLES AND ASSIST AGRICULTURE MACHINERY SUPERVISOR IN ALL MACHINERY WORKS.

A SENIOR HARVESTER OPERATOR MAY BE FOUND IN MACHINERY AND EQUIPMENT INDUSTRY SUCH AS AGRICULTURAL SUB SECTOR.

In particular the person will:

1. Maintain tractor-drawn or self-propelled machinery to plough land and fertilise, plant, cultivate and harvest crops.
2. Adjust speed, height or depth of implements.
3. Check safety conditions and avoid damage to plants.
4. Operate a wide range of mechanical harvesting equipment.
5. Maintain forestry equipment and vehicles.
6. Supervise a group of serviceman to ensure machinery is in good order.
7. Prepare report abnormality to supervisor.
8. Prepare record of all work performed.

LEVEL 3

AGRICULTURE MACHINERY SUPERVISOR

AN AGRICULTURE MACHINERY SUPERVISOR IS DESIGNATED TO HEAVY VEHICLE MOTOR MECHANICS REPAIR, MAINTAIN AND TEST HEAVY VEHICLES, OTHER ENGINES AND RELATED MECHANICAL COMPONENTS AND ASSIST AGRICULTURE MACHINERY EXECUTIVE IN ALL MACHINERY WORKS.

AN AGRICULTURE MACHINERY SUPERVISOR MAY FOUND IN MACHINERY AND EQUIPMENT INDUSTRY SUCH AS AGRICULTURAL SUB SECTOR.

In particular the person will:

1. Diagnose, overhaul, repair, tune, maintain and test diesel and petrol/gas-powered vehicles, including trucks, buses, bulldozers and other earthmoving equipment, tractors, stationary engines (e.g. generators, pumps, compressors and drilling rigs) and agricultural machinery.
2. Detect mechanical and electrical faults by using instruments that check charging and starting circuitry, batteries, ignition and ignition timing, fuel injection systems and speed control, cylinder compression, engine condition, braking efficiency, and wheel balance and alignment.
3. Repair and maintain the hydraulic components of diesel and petrol/gas engines that are used to power attachments such as hoists, booms, scrapers, buckets and augers.
4. Use oxy, electric, TIG and MIG welding, hand fitting or machining processes to replace or repair faulty parts.
5. Maintain tractor-drawn or self-propelled machinery to plough land and fertilise, plant, cultivate and harvest crops.
6. Train and ensures assigned employees are aware of and comply with company and government policies and procedures.
7. Communicate company objectives effectively to co-workers while always working towards the highest standards of safety, quality, efficiency and housekeeping.
8. Foster a team environment by promoting open channels of communication.

LEVEL 4

AGRICULTURE MACHINERY EXECUTIVE

AN AGRICULTURE MACHINERY EXECUTIVE IS DESIGNATED TO DIAGNOSE, OVERHAUL, REPAIR, TUNE, MAINTAIN AND TEST DIESEL AND PETROL/ GAS-POWERED VEHICLES, INCLUDING TRUCKS, BUSES, BULLDOZERS AND OTHER EARTHMOVING EQUIPMENT, TRACTORS, STATIONARY ENGINES AND AGRICULTURAL MACHINERY, DETECT MECHANICAL AND ELECTRICAL FAULTS BY USING INSTRUMENTS THAT CHECK CHARGING AND STARTING CIRCUITRY, BATTERIES, IGNITION AND IGNITION TIMING, FUEL INJECTION SYSTEMS AND SPEED CONTROL, BRAKING EFFICIENCY, AND WHEEL BALANCE AND ALIGNMENT AND ASSIST SENIOR AGRICULTURE MACHINERY EXECUTIVE.

AN AGRICULTURE MACHINERY EXECUTIVE MAY BE FOUND IN MACHINERY AND EQUIPMENT INDUSTRY SUCH AS AGRICULTURAL SUB SECTOR.

In particular the person will:

1. Diagnose, overhaul, repair, tune, maintain and test diesel and petrol/gas-powered vehicles, including trucks, buses, bulldozers and other earthmoving equipment, tractors, stationary engines (e.g. generators, pumps, compressors and drilling rigs) and agricultural machinery.
2. Detect mechanical and electrical faults by using instruments that check charging and starting circuitry, batteries, ignition and ignition timing, fuel injection systems and speed control, cylinder compression, engine condition, braking efficiency, and wheel balance and alignment.
3. Use oxy, electric, TIG and MIG welding, hand fitting or machining processes to replace or repair faulty parts.
4. Train and develop other employees in performing preventive maintenance and routine equipment service activities.
5. Practice situational leadership, safety and environmental stewardship.
6. Lead equipment or system problem identification and recommends solutions.
7. Prepare necessary report and improvement recommendations for management review.
8. Manage preventive maintenance tasks and records preventive maintenance activities.

LEVEL 5

AGRICULTURE MACHINERY MANAGER

AN AGRICULTURE MACHINERY MANAGER IS DESIGNATED TO DETECT MECHANICAL AND ELECTRICAL FAULTS BY USING INSTRUMENTS THAT CHECK CHARGING AND STARTING CIRCUITRY, BATTERIES, IGNITION AND IGNITION TIMING, FUEL INJECTION SYSTEMS AND SPEED CONTROL, CYLINDER COMPRESSION, ENGINE CONDITION, BRAKING EFFICIENCY, AND WHEEL BALANCE AND ALLIGNMENT IN ALL MACHINERY WORKS.

AN AGRICULTURE MACHINERY MANAGER MAY BE FOUND IN MACHINERY AND EQUIPMENT INDUSTRY SUCH AS AGRICULTURAL SUB SECTOR.

In particular the person will:

1. Diagnose, overhaul, repair, tune, maintain and test diesel and petrol/gas-powered vehicles, including trucks, buses, bulldozers and other earthmoving equipment, tractors, stationary engines (e.g. generators, pumps, compressors and drilling rigs) and agricultural machinery.
2. Detect mechanical and electrical faults by using instruments that check charging and starting circuitry, batteries, ignition and ignition timing, fuel injection systems and speed control, cylinder compression, engine condition, braking efficiency, and wheel balance and alignment.
3. Manage and ensure that appropriate safety procedures are followed.
4. Develop operating procedures for plant equipment to ensure consistent and safe operation.
5. Manage and record preventive maintenance tasks and activities.
6. Practice situational leadership, safety and environmental stewardship.
7. Supervise a group of supervisors or workers to ensure Agriculture Industries facility and machinery are in good order.

JOB TITLES

(SPECIALISED M&E – FOOD PROCESSING MACHINERY)

LEVEL 1
Not Available

LEVEL 2
DAIRY PLANT LEADER
FISH AND MEAT PLANT LEADER
BAKERY PLANT LEADER
BEVERAGE PLANT LEADER
SUGAR PROCESSING PLANT LEADER
HERBAL PLANT LEADER
FLOUR, RICE PLANT LEADER
TOBACCO PROCESSING PLANT LEADER

LEVEL 3
DAIRY PLANT SUPERVISOR
FISH AND MEAT PLANT SUPERVISOR
BAKERY PLANT SUPERVISOR
BEVERAGE PLANT SUPERVISOR
SUGAR PROCESSING PLANT SUPERVISOR
HERBAL PLANT SUPERVISOR
FLOUR, RICE PLANT SUPERVISOR
TOBACCO PLANT SUPERVISOR

LEVEL 4
Not Available

LEVEL 5
Not Available

LEVEL 6
Not Available

LEVEL 7
Not Available

LEVEL 8
Not Available

LEVEL 2

DAIRY PLANT LEADER

A DAIRY PLANT LEADER IS DESIGNATED TO SUPERVISE A GROUP OF PLANT OPERATORS, PERFORM WORK BASE ON WORK ORDER, PREPARE REPORT ABNORMALITY TO SUPERVISORS AND ASSIST DAIRY PLANT SUPERVISOR IN ALL MACHINERY WORKS.

A DAIRY PLANT LEADER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Supervise a group of plant operators.
2. Perform work base on work order.
3. Prepare report abnormality to supervisors.
4. Prepare record of all work performed.
5. Prepare weekly schedule for the operators.
6. Lead equipment or system problem identification and recommends solutions.
7. Oversee operation and ensures that appropriate safety procedures are followed and performs other duties as directed by superior.
8. Participate in operator training and continual training.

* Pre-requisite:
  Dairy Plant Leader is to be qualified from general worker who has 2 years working experience in area of dairy plant.

LEVEL 2

FISH AND MEAT PLANT LEADER

A FISH AND MEAT PLANT LEADER IS DESIGNATED TO SUPERVISE A GROUP OF PLANT OPERATORS, PERFORM WORK BASE ON WORK ORDER, PREPARE REPORT ABNORMALITY TO SUPERVISORS AND ASSIST FISH AND MEAT PLANT SUPERVISOR IN ALL MACHINERY WORKS.

A FISH AND MEAT PLANT LEADER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Supervise a group of plant operators.
2. Perform work base on work order.
3. Prepare report abnormality to supervisors.
4. Prepare record of all work performed.
5. Prepare weekly schedule for the operators.
6. Lead equipment or system problem identification and recommends solutions.
7. Oversee operation and ensures that appropriate safety procedures are followed and performs other duties as directed by superior.
8. Participate in operator training and continual training.

* Pre-requisite:
  Fish and Meat Plant Leader is to be qualified from general worker who has 2 years working experience in area of fish and meat plant.

LEVEL 2

BAKERY PLANT LEADER

A BAKERY PLANT LEADER IS DESIGNATED TO SUPERVISE A GROUP OF PLANT OPERATORS, PERFORM WORK BASE ON WORK ORDER, PREPARE REPORT ABNORMALITY TO SUPERVISORS AND ASSIST BAKERY PLANT SUPERVISOR IN ALL MACHINERY WORKS.

A BAKERY PLANT LEADER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Supervise a group of plant operators.
2. Perform work base on work order.
3. Prepare report abnormality to supervisors.
4. Prepare record of all work performed.
5. Perform Major Trouble Shooting.
6. Lead equipment or system problem identification and recommends solutions.
7. Oversee operation and ensures that appropriate safety procedures are followed and performs other duties as directed by superior.
8. Participate in operator training and continual training.

* Pre-requisite:
  Bakery Plant Leader is to be qualified from general worker who has 2 years working experience in area of bakery plant.

LEVEL 2

BEVERAGE PLANT LEADER

A BEVERAGE PLANT LEADER IS DESIGNATED TO SUPERVISE A GROUP OF PLANT OPERATORS, PERFORM WORK BASE ON WORK ORDER, PREPARE REPORT ABNORMALITY TO SUPERVISORS AND ASSIST BEVERAGE PLANT SUPERVISOR IN ALL MACHINERY WORKS.

A BEVERAGE PLANT LEADER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Supervise a group of plant operators.
2. Perform work base on work order.
3. Prepare report abnormality to supervisors.
4. Prepare record of all work performed.
5. Carry out preventive maintenance.
6. Lead equipment or system problem identification and recommends solutions.
7. Oversee operation and ensure that appropriate safety procedures are followed and perform other duties as directed by superior.
8. Participate in operator training and continual training.

* Pre-requisite:
  Beverage Plant Leader is to be qualified from general worker who has 2 years working experience in area of beverage plant.

LEVEL 2

SUGAR PROCESSING PLANT LEADER

A SUGAR PROCESSING PLANT LEADER IS DESIGNATED TO SUPERVISE A GROUP OF PLANT OPERATORS, PERFORM WORK BASE ON WORK ORDER, PREPARE REPORT ABNORMALITY TO SUPERVISORS AND ASSIST SUGAR PROCESSING PLANT SUPERVISOR IN ALL MACHINERY WORKS.

A SUGAR PROCESSING PLANT LEADER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Supervise a group of plant operators.
2. Perform work base on work order.
3. Prepare report abnormality to supervisors.
4. Prepare record of all work performed.
5. Prepare weekly schedule for the operators.
6. Lead equipment or system problem identification and recommends solutions.
7. Oversee operation and ensure that appropriate safety procedures are followed and perform other duties as directed by superior.
8. Participate in operator training and continual training.

* Pre-requisite:
  Sugar processing plant leader is to be qualified from general worker who has 2 years working experience in area of sugar processing.

LEVEL 2

HERBAL PLANT LEADER

A HERBAL PLANT LEADER IS DESIGNATED TO SUPERVISE A GROUP OF PLANT OPERATORS, PERFORM WORK BASE ON WORK ORDER, PREPARE REPORT ABNORMALITY TO SUPERVISORS AND ASSIST HERBAL PLANT SUPERVISOR IN ALL MACHINERY WORKS.

A HERBAL PLANT LEADER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Supervise a group of plant operators.
2. Perform work base on work order.
3. Prepare report abnormality to supervisors.
4. Prepare record of all work performed.
5. Prepare weekly schedule for the operators.
6. Lead equipment or system problem identification and recommends solutions.
7. Oversee operation and ensure that appropriate safety procedures are followed and perform other duties as directed by superior.
8. Participate in operator training and continual training.

* Pre-requisite:
  Herbal Plant Leader is to be qualified from general worker who has 2 years working experience in area of herbal plant.

LEVEL 2

FLOUR AND RICE PLANT LEADER

A FLOUR, RICE PLANT LEADER IS DESIGNATED TO SUPERVISE A GROUP OF PLANT OPERATORS, PERFORM WORK BASE ON WORK ORDER, PREPARE REPORT ABNORMALITY TO SUPERVISORS AND ASSIST FLOUR, RICE PLANT SUPERVISOR IN ALL MACHINERY WORKS.

A FLOUR, RICE PLANT LEADER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Supervise a group of plant operators.
2. Perform work base on work order.
3. Prepare report abnormality to supervisors.
4. Prepare record of all work performed.
5. Prepare weekly schedule for the operators.
6. Lead equipment or system problem identification and recommends solutions.
7. Oversee operation and ensure that appropriate safety procedures are followed and perform other duties as directed by superior.
8. Participate in operator training and continual training.

* Pre-requisite:
  Flour, Rice Plant Leader is to be qualified from general worker who has 2 years working experience in area of flour, rice processing.

LEVEL 2

TOBACCO PROCESSING PLANT LEADER

A TOBACCO PROCESSING PLANT LEADER IS DESIGNATED TO SUPERVISE A GROUP OF PLANT OPERATORS, PERFORM WORK BASE ON WORK ORDER, PREPARE REPORT ABNORMALITY TO SUPERVISORS AND ASSIST TOBACCO PLANT SUPERVISOR IN ALL MACHINERY WORKS.

A TOBACCO PROCESSING PLANT LEADER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Supervise a group of plant operators.
2. Perform work base on work order.
3. Prepare report abnormality to supervisors.
4. Check all maintenance report/record.
5. Prepare weekly schedule for the operators.
6. Lead equipment or system problem identification and recommends solutions.
7. Oversee operation and ensure that appropriate safety procedures are followed and perform other duties as directed by superior.
8. Participate in operator training and continual training.

* Pre-requisite:
  Tobacco Processing Plant Leader is to be qualified from general worker who has 2 years working experience in area of tobacco processing.

LEVEL 3

DAIRY PLANT SUPERVISOR

A DAIRY PLANT SUPERVISOR IS DESIGNATED TO ENSURE THE MACHINERY ARE MEETING THE CAPABILITIES AND SUITABILITY REQUIREMENT IN ALL MACHINERY WORKS.

A DAIRY PLANT SUPERVISOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Supervise a group of workers to ensure Industries facility and machinery in good order.
2. Perform inspection to ensure the machinery is meeting the capabilities and suitability requirement.
3. Prepare weekly schedule for the operators.
4. Prepare record of all work performed.
5. Perform work base on work order.
6. Evaluate processes and recommend plant layout changes for work flow, process methods and production equipment improvements.
7. Design, monitor and maintain a safe working environment by ensuring all safety requirements and quality control standards are met.
8. Manage costs effectively related to plant operation.
9. Train and ensure assigned employees are aware of and comply with company and government policies and procedures.
10. Communicate company objectives effectively to co-workers while always working towards the highest standards of safety, quality, efficiency and housekeeping.
11. Foster a team environment by promoting open channels of communication.

LEVEL 3

FISH AND MEAT PLANT SUPERVISOR

A FISH AND MEAT PLANT SUPERVISOR IS DESIGNATED TO ENSURE THE MACHINERY ARE MEETING THE CAPABILITIES AND SUITABILITY REQUIREMENT IN ALL MACHINERY WORKS.

A FISH AND MEAT PLANT SUPERVISOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Supervise a group of workers to ensure Industries facility and machinery in good order.
2. Perform inspection to ensure the machinery is meeting the capabilities and suitability requirement.
3. Prepare weekly schedule for the operators.
4. Generate work order.
5. Check all maintenance report/record.
6. Evaluate processes and recommend plant layout changes for work flow, process methods and production equipment improvements.
7. Design, monitor and maintain a safe working environment by ensuring all safety requirements and quality control standards are met.
8. Manage costs effectively related to plant operation.
9. Train and ensures assigned employees are aware of and comply with company and government policies and procedures.
10. Communicate company objectives effectively to co-workers while always working towards the highest standards of safety, quality, efficiency and housekeeping.
11. Foster a team environment by promoting open channels of communication.

LEVEL 3

BAKERY PLANT SUPERVISOR

A BAKERY PLANT SUPERVISOR IS DESIGNATED TO ENSURE THE MACHINERY ARE MEETING THE CAPABILITIES AND SUITABILITY REQUIREMENT IN ALL MACHINERY WORKS.

A BAKERY PLANT SUPERVISOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Supervise a group of workers to ensure Industries facility and machinery in good order.
2. Perform inspection the machinery are meeting the capabilities and suitability requirement.
3. Prepare weekly schedule for the operators.
4. Generate work order.
5. Implement technical changes instruction.
6. Check all maintenance report/record.
7. Evaluate processes and recommend plant layout changes for work flow, process methods and production equipment improvements.
8. Design, monitor and maintain a safe working environment by ensuring all safety requirements and quality control standards are met.
9. Manage costs effectively related to plant operation.
10. Train and ensure assigned employees are aware of and comply with company and government policies and procedures.
11. Communicate company objectives effectively to co-workers while always working towards the highest standards of safety, quality, efficiency and housekeeping.
12. Foster a team environment by promoting open channels of communication.

LEVEL 3

BEVERAGE PLANT SUPERVISOR

A BEVERAGE PLANT SUPERVISOR IS DESIGNATED TO ENSURE THE MACHINERY ARE MEETING THE CAPABILITIES AND SUITABILITY REQUIREMENT IN ALL MACHINERY WORKS.

A BEVERAGE PLANT SUPERVISOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Supervise a group of workers to ensure Industries facility and machinery in good order.
2. Prepare weekly schedule for the operators.
3. Generate work order.
4. Implement technical changes instruction.
5. Check all maintenance report/record.
6. Evaluate processes and recommend plant layout changes for work flow, process methods and production equipment improvements.
7. Design, monitor and maintain a safe working environment by ensuring all safety requirements and quality control standards are met.
8. Manage costs effectively related to plant operation.
9. Train and ensure assigned employees are aware of and comply with company and government policies and procedures.
10. Communicate company objectives effectively to co-workers while always working towards the highest standards of safety, quality, efficiency and housekeeping.
11. Foster a team environment by promoting open channels of communication.

LEVEL 3

SUGAR PROCESSING PLANT SUPERVISOR

A SUGAR PROCESSING PLANT SUPERVISOR IS DESIGNATED TO ENSURE THE MACHINERY ARE MEETING THE CAPABILITIES AND SUITABILITY REQUIREMENT IN ALL MACHINERY WORKS.

A SUGAR PROCESSING PLANT SUPERVISOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Supervise a group of workers to ensure industries facility and machinery in good order.
2. Perform inspection the machinery are meeting the capabilities and suitability requirement.
3. Prepare weekly schedule for the operators.
4. Prepare record of all work performed.
5. Perform work base on work order.
6. Evaluate processes and recommend plant layout changes for work flow, process methods and production equipment improvements.
7. Design, monitor and maintain a safe working environment by ensuring all safety requirements and quality control standards are met.
8. Manage costs effectively related to plant operation.
9. Train and ensure assigned employees are aware of and comply with company and government policies and procedures.
10. Communicate company objectives effectively to co-workers while always working towards the highest standards of safety, quality, efficiency and housekeeping.
11. Foster a team environment by promoting open channels of communication.

LEVEL 3

HERBAL PLANT SUPERVISOR

A HERBAL PLANT SUPERVISOR IS DESIGNATED TO ENSURE THE MACHINERY ARE MEETING THE CAPABILITIES AND SUITABILITY REQUIREMENT IN ALL MACHINERY WORKS.

A HERBAL PLANT SUPERVISOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Supervise a group of workers to ensure Industries facility and machinery in good order.
2. Perform inspection the machinery are meeting the capabilities and suitability requirement.
3. Prepare weekly schedule for the operators.
4. Generate work order.
5. Check all maintenance report/record.
6. Evaluate processes and recommend plant layout changes for work flow, process methods and production equipment improvements.
7. Design, monitor and maintain a safe working environment by ensuring all safety requirements and quality control standards are met.
8. Manage costs effectively related to plant operation.
9. Train and ensure assigned employees are aware of and comply with company and government policies and procedures.
10. Communicate company objectives effectively to co-workers while always working towards the highest standards of safety, quality, efficiency and housekeeping.
11. Foster a team environment by promoting open channels of communication.

LEVEL 3

FLOUR, RICE PLANT SUPERVISOR

A FLOUR, RICE PLANT SUPERVISOR IS DESIGNATED TO ENSURE THE MACHINERY ARE MEETING THE CAPABILITIES AND SUITABILITY REQUIREMENT IN ALL MACHINERY WORKS.

A FLOUR, RICE PLANT SUPERVISOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Supervise a group of workers to ensure Industries facility and machinery in good order.
2. Perform inspection the machinery are meeting the capabilities and suitability requirement.
3. Prepare weekly schedule for the operators.
4. Generate work order.
5. Check all maintenance report/record.
6. Evaluate processes and recommend plant layout changes for work flow, process methods and production equipment improvements.
7. Design, monitor and maintain a safe working environment by ensuring all safety requirements and quality control standards are met.
8. Manage costs effectively related to plant operation.
9. Train and ensure assigned employees are aware of and comply with company and government policies and procedures.
10. Communicate company objectives effectively to co-workers while always working towards the highest standards of safety, quality, efficiency and housekeeping.
11. Foster a team environment by promoting open channels of communication.

LEVEL 3

TOBACCO PLANT SUPERVISOR

A TOBACCO PLANT SUPERVISOR IS DESIGNATED TO ENSURE THE MACHINERY ARE MEETING THE CAPABILITIES AND SUITABILITY REQUIREMENT IN ALL MACHINERY WORKS.

A TOBACCO PLANT SUPERVISOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Supervise a group of workers to ensure Industries facility and machinery in good order.
2. Perform inspection the machinery are meeting the capabilities and suitability requirement.
3. Prepare weekly schedule for the operators.
4. Generate work order.
5. Prepare record of all work performed.
6. Evaluate processes and recommend plant layout changes for work flow, process methods and production equipment improvements.
7. Design, monitor and maintain a safe working environment by ensuring all safety requirements and quality control standards are met.
8. Manage costs effectively related to plant operation.
9. Train and ensure assigned employees are aware of and comply with company and government policies and procedures.
10. Communicate company objectives effectively to co-workers while always working towards the highest standards of safety, quality, efficiency and housekeeping.
11. Foster a team environment by promoting open channels of communication.

JOB TITLES

(SPECIALISED M&E – WOODWORKING)

LEVEL 1

Not Available

LEVEL 2

TIMBER PLANT LEADER

PULP PLANT LEADER

PAPER PLANT LEADER

LEVEL 3

TIMBER PLANT SUPERVISOR

PULP PLANT SUPERVISOR

PAPER PLANT SUPERVISOR

LEVEL 4

Not Available

LEVEL 5

Not Available

LEVEL 6

Not Available

LEVEL 7

Not Available

LEVEL 8

Not Available

LEVEL 2

TIMBER PLANT LEADER

A TIMBER PLANT LEADER IS DESIGNATED TO SUPERVISE A GROUP OF OPERATOR TO ENSURE TIMBER MACHINERY ARE IN GOOD OPERATION, PREPARE REPORT ABNORMALITY TO SUPERVISOR, PREPARE RECORD OF ALL WORK PERFORMED AND ASSIST TIMBER PLANT SUPERVISOR IN ALL MACHINERY WORKS.

A TIMBER PLANT LEADER MAY BE FOUND IN SPECIALISE SUB-SECTOR OF MACHINERY AND EQUIPMENT INDUSTRY SUCH AS PLANTATION.

In particular the person will:

1. Supervise a group of operator to ensure Timber Machinery are in good condition and suitable for operation.
2. Perform work base on work order given by superior.
3. Prepare abnormality report to supervisor.
4. Prepare record of all work performed and work in progress report.
5. Present abnormality report to management for further action.
6. Participate in operator training and continual training.
7. Carry out preventive maintenance tasks and records preventive maintenance activities.
8. Practice situational leadership, safety and environmental stewardship.
9. Lead equipment or system problem identification and recommends solutions.
10. Oversee operation and ensure that appropriate safety procedures are followed and perform other duties as directed by superior.

* Pre-requisite:
  Timber Plant Leader is to be qualified from general worker who has 2 years working experience in area of timber plant.

LEVEL 2

PULP PLANT LEADER

A PULP PLANT LEADER IS DESIGNATED TO SUPERVISE A GROUP OF OPERATOR TO ENSURE PULP PLANT MACHINERY ARE IN GOOD OPERATION, REPORT ABNORMALITY TO SUPERVISOR, RECORD OF ALL WORK PERFORMED AND ASSIST PULP PLANT SUPERVISOR IN ALL MACHINERY WORKS.

A PULP PLANT LEADER MAY BE FOUND IN SPECIALISE SUB-SECTOR OF MACHINERY AND EQUIPMENT INDUSTRY SUCH AS PLANTATION.

In particular the person will:

1. Supervise a group of operator to ensure Pulp Plant Machinery are in good condition and suitable for operation.
2. Perform work base on work order given by superior.
3. Prepare abnormality report to supervisor.
4. Prepare record of all work performed and work in progress report.
5. Present abnormality report to management for further action.
6. Participate in operator training and continual training.
7. Carry out preventive maintenance tasks and record preventive maintenance activities.
8. Practice situational leadership, safety and environmental stewardship.
9. Lead equipment or system problem identification and recommend solutions.
10. Oversee operation and ensure that appropriate safety procedures are followed and perform other duties as directed by superior.

* Pre-requisite:
  Pulp Plant Leader is to be qualified from general worker who has 2 years working experience in area of pulp plant.

LEVEL 2

PAPER PLANT LEADER

A PAPER PLANT LEADER IS DESIGNATED TO SUPERVISE A GROUP OF OPERATOR TO ENSURE PAPER PLANT MACHINERY ARE IN GOOD OPERATION, PREPARE REPORT ABNORMALITY TO SUPERVISOR, PREPARE RECORD OF ALL WORK PERFORMED AND ASSIST PAPER PLANT SUPERVISOR IN ALL MACHINERY WORKS.

A PAPER PLANT LEADER MAY BE FOUND IN SPECIALISE SUB-SECTOR OF MACHINERY AND EQUIPMENT INDUSTRY SUCH AS PLANTATION.

In particular the person will:

1. Supervise a group of operator to ensure Paper Plant Machinery are in good condition and suitable for operation.
2. Perform work base on work order given by superior.
3. Prepare abnormality report to supervisor.
4. Prepare record of all work performed and work in progress report.
5. Present abnormality report to management for further action.
6. Participate in operator training and continual training.
7. Carry out preventive maintenance tasks and record preventive maintenance activities.
8. Practice situational leadership, safety and environmental stewardship.
9. Lead equipment or system problem identification and recommend solutions.
10. Oversee operation and ensure that appropriate safety procedures are followed and perform other duties as directed by superior.

* Pre-requisite:
  Paper Plant Leader is to be qualified from general worker who has 2 years working experience in area of paper plant.

LEVEL 3

TIMBER PLANT SUPERVISOR

A TIMBER PLANT SUPERVISOR IS DESIGNATED TO PERFORM WORK ACCORDING TO MANAGEMENT INSTRUCTION, SUPERVISE A GROUP OF PLANT LEADER OR WORKERS TO ENSURE TIMBER AND MACHINERY ARE IN GOOD OPERATION, TO ENSURE THE MACHINERY ARE MEETING THE COMPANY CAPABILITIES AND SUITABILITY REQUIREMENT IN ALL MACHINERY WORKS.

A TIMBER PLANT SUPERVISOR MAY BE FOUND IN SPECIALISE SUB-SECTOR OF MACHINERY AND EQUIPMENT INDUSTRY SUCH AS PLANTATION.

In particular the person will:

1. Perform work according to management instruction.
2. Supervise a group of Plant Leader or workers to ensure timber and machinery are in good condition and suitable for operation.
3. Supervise and ensure the machinery is meeting the company capabilities and suitability requirement.
4. Perform work base on work order.
5. Prepare record of all work performed.
6. Oversee production in a fast paced environment.
7. Evaluate manufacturing processes and recommend plant layout changes for work flow, process methods and production equipment improvements.
8. Perform inspection to ensure adherence to company policies, procedures and practices.
9. Design, monitor and maintain a safe working environment by ensuring all safety requirements and quality control standards are met.
10. Nurture a positive and innovative work environment and foster a team environment

11. Manage costs effectively related to plant operation.
12. Train and ensure assigned employees are aware of and comply with company and government policies and procedures.
13. Communicate company objectives effectively to co-workers while always working towards the highest standards of safety, quality, efficiency and housekeeping.

LEVEL 3

PULP PLANT SUPERVISOR

A PULP PLANT SUPERVISOR IS DESIGNATED TO PERFORM WORK ACCORDING TO MANAGEMENT INSTRUCTION, SUPERVISE A GROUP OF PLANT LEADER OR WORKERS TO ENSURE PULP PLANT AND MACHINERY ARE IN GOOD OPERATION, REPORT ABNORMALITY TO MANAGEMENT AND TO ENSURE PRODUCT QUALITY CONTROL IN ALL MACHINERY WORKS.

A PULP PLANT SUPERVISOR MAY BE FOUND IN SPECIALISE SUB-SECTOR OF MACHINERY AND EQUIPMENT INDUSTRY SUCH AS PLANTATION.

In particular the person will:

1. Perform work according to Management instruction.
2. Supervise a group of Plant Leader or workers to ensure Pulp Plant and machinery are in good condition and suitable for operation.
3. Supervise and ensure the machinery is meeting the company capabilities and suitability requirement.
4. Generate work order and delegate it to subordinate.
5. Check all maintenance report/record.
6. Oversee production in a fast paced environment.
7. Evaluate manufacturing processes and recommend plant layout changes for work flow, process methods and production equipment improvements.
8. Perform inspection to ensure adherence to company policies, procedures and practices.
9. Design, monitor and maintain a safe working environment by ensuring all safety requirements and quality control standards are met.
10. Nurture a positive and innovative work environment and foster a team environment

11. Manage costs effectively related to plant operation.
12. Train and ensure assigned employees are aware of and comply with company and government policies and procedures.
13. Communicate company objectives effectively to co-workers while always working towards the highest standards of safety, quality, efficiency and housekeeping.

LEVEL 3

PAPER PLANT SUPERVISOR

A PAPER PLANT SUPERVISOR IS DESIGNATED TO PERFORM WORK ACCORDING TO MANAGEMENT INSTRUCTION, SUPERVISE A GROUP OF PLANT LEADER OR WORKERS TO ENSURE PAPER PLANT AND MACHINERY ARE IN GOOD OPERATION, TO ENSURE THE MACHINERY ARE MEETING THE COMPANY CAPABILITIES AND SUITABILITY REQUIREMENT IN ALL MACHINERY WORKS.

A PAPER PLANT SUPERVISOR MAY BE FOUND IN SPECIALISE SUB-SECTOR OF MACHINERY AND EQUIPMENT INDUSTRY SUCH AS PLANTATION.

In particular the person will:

1. Perform work according to Management instruction.
2. Supervise a group of Plant Leader or workers to ensure Paper Plant and machinery are in good condition and suitable for operation.
3. Supervise plant operation and ensure the machinery is meeting the company capabilities and suitability requirement.
4. Check all maintenance report/record.
5. Implement preventive maintenance to minimize lost.
6. Oversee production in a fast paced environment.
7. Evaluate manufacturing processes and recommend plant layout changes for work flow, process methods and production equipment improvements.
8. Perform inspection to ensure adherence to company policies, procedures and practices.
9. Design, monitor and maintain a safe working environment by ensuring all safety requirements and quality control standards are met.
10. Nurture a positive and innovative work environment and foster a team environment.

11. Manage costs effectively related to plant operation.
12. Train and ensure assigned employees are aware of and comply with company and government policies and procedures.
13. Communicate company objectives effectively to co-workers while always working towards the highest standards of safety, quality, efficiency and housekeeping.

JOB TITLES

(SPECIALISED M&E – PLASTIC PROCESSING)

LEVEL 1

PLASTIC PRODUCTION OPERATOR - "INJECTION MOULDING"
PLASTIC PRODUCTION OPERATOR - "EXTRUSION-PIPE & PROFILE"
PLASTIC PRODUCTION OPERATOR - "ROTATIONAL MOULDING"
PLASTIC PRODUCTION OPERATOR - "COMPRESSION MOULDING"
PRODUCTION OPERATOR - "BLOW MOULDING"

LEVEL 2

PLASTIC PRODUCTION LINE LEADER - "INJECTION MOULDING"
PLASTIC PRODUCTION LINE LEADER - "EXTRUSION-PIPE & PROFILE"
PLASTIC PRODUCTION LINE LEADER - "ROTATIONAL MOULDING"
PLASTIC PRODUCTION LINE LEADER - "COMPRESSION MOULDING"
PRODUCTION LINE LEADER - "BLOW MOULDING"

LEVEL 3

PLASTIC PRODUCTION SUPERVISOR - "INJECTION MOULDING"
PLASTIC PRODUCTION SUPERVISOR - "EXTRUSION-PIPE & PROFILE"
PLASTIC PRODUCTION SUPERVISOR - "ROTATIONAL MOULDING"
PLASTIC PRODUCTION SUPERVISOR - "COMPRESSION MOULDING"
PRODUCTION SUPERVISOR - "BLOW MOULDING"

LEVEL 4

ASSISTANT PLASTIC PRODUCTION MANAGER

LEVEL 5

PLASTIC PRODUCTION MANAGER

LEVEL 6

PLASTIC PLANT SENIOR MANAGER

LEVEL 7

Not Available

LEVEL 8

Not Available

LEVEL 1

PLASTIC PRODUCTION OPERATOR - “INJECTION MOULDING”

A PLASTIC PRODUCTION OPERATOR - “INJECTION MOULDING” IS DESIGNATED TO ENSURE RUBBER AND PLASTIC MACHINERY ARE IN GOOD ORDER, WORK UNDER INSTRUCTION/SUPERVISOR OF TECHNICIAN AND ASSIST INJECTION MOULDING PRODUCTION LINE LEADER IN ALL MACHINERY WORKS.

A PLASTIC PRODUCTION OPERATOR - “INJECTION MOULDING” MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Work under instruction/supervisor of technician.
2. Perform Rubber and Plastic machinery inspection.
3. Operate Injection Moulding Machinery.
4. Perform Preventive Maintenance.
5. Prepare abnormality report to supervisor.
6. Prepare record of all work performed.
7. Perform general housekeeping and continuous improvement of the facility appearance.
8. Perform trouble shooting.
9. Perform work base on work order.

LEVEL 1

PLASTIC PRODUCTION OPERATOR - “EXTRUSION-PIPE & PROFILE”

A PLASTIC PRODUCTION OPERATOR - “EXTRUSION-PIPE & PROFILE” IS DESIGNATED TO ENSURE RUBBER AND PLASTIC MACHINERY ARE IN GOOD ORDER, WORK UNDER INSTRUCTION/SUPERVISOR OF TECHNICIAN, OPERATE EXTRUSION PIPE AND PROFILE MACHINERY AND ASSIST EXTRUSION PIPE AND PROFILE PRODUCTION LINE LEADER IN ALL MACHINERY WORKS.

A PLASTIC PRODUCTION OPERATOR - “EXTRUSION-PIPE & PROFILE” MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Work under instruction/supervisor of technician.
2. Perform Rubber and Plastic machinery inspection
3. Operate Extrusion Pipe and Profile Machinery.
4. Perform work base on work order.
5. Prepare record of all work performed.
6. Perform general housekeeping and continuous improvement of the facility appearance.
7. Perform trouble shooting.
8. Perform work base on work order.

LEVEL 1

PLASTIC PRODUCTION OPERATOR - “ROTATIONAL MOULDING”

A PLASTIC PRODUCTION OPERATOR - “ROTATIONAL MOULDING” IS DESIGNATED TO OPERATE ROTATIONAL MOULDING MACHINERY, TO ENSURE RUBBER AND PLASTIC MACHINERY ARE IN GOOD ORDER AND WORK UNDER INSTRUCTION/SUPERVISOR OF TECHNICIAN AND ASSIST ROTATIONAL MOULDING PRODUCTION LINE LEADER IN ALL MACHINERY WORKS.

A PLASTIC PRODUCTION OPERATOR - “ROTATIONAL MOULDING” MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Work under instruction/supervisor of technician.
2. Perform Rubber and Plastic machinery inspection.
3. Operate Rotational Moulding Machinery.
4. Perform Preventive Maintenance.
5. Record of all work performed.
6. Perform general housekeeping and continuous improvement of the facility appearance.
7. Perform trouble shooting.
8. Perform work base on work order.

LEVEL 1

PLASTIC PRODUCTION OPERATOR - “COMPRESSION MOULDING”

A PLASTIC PRODUCTION OPERATOR - “COMPRESSION MOULDING” IS DESIGNATED TO OPERATE COMPRESSION MOULDING MACHINERY, TO ENSURE RUBBER AND PLASTIC MACHINERY ARE IN GOOD ORDER AND WORK UNDER INSTRUCTION/SUPERVISOR OF TECHNICIAN AND ASSIST COMPRESSION MOULDING PRODUCTION LINE LEADER IN ALL MACHINERY WORKS.

A PLASTIC PRODUCTION OPERATOR - “COMPRESSION MOULDING” MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Work under instruction/supervisor of technician.
2. Perform Rubber and Plastic machinery inspection.
3. Operate Compression Moulding Machinery.
4. Prepare abnormality report to supervisor.
5. Prepare record of all work performed.
6. Perform general housekeeping and continuous improvement of the facility appearance.
7. Perform trouble shooting.
8. Perform work base on work order.

LEVEL 1

PRODUCTION OPERATOR - “BLOW MOULDING”

A PRODUCTION OPERATOR - “BLOW MOULDING” IS DESIGNATED TO OPERATE BLOW MOULDING MACHINERY, TO ENSURE RUBBER AND PLASTIC MACHINERY ARE IN GOOD ORDER AND ASSIST BLOW MOULDING PRODUCTION LINE LEADER IN ALL MACHINERY WORKS.

A PRODUCTION OPERATOR - “BLOW MOULDING” MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Work under instruction/supervisor of technician.
2. Perform Rubber and Plastic machinery inspection.
3. Performed routine maintenance.
4. Carry out preventive maintenance.
5. Prepare abnormality report to line leader.
6. Perform general housekeeping and continuous improvement of the facility appearance.
7. Perform trouble shooting.
8. Perform work base on work order.

LEVEL 2

PLASTIC PRODUCTION LINE LEADER - “INJECTION MOULDING”

A PLASTIC PRODUCTION LINE LEADER - “INJECTION MOULDING” IS DESIGNATED TO PERFORM WORK BASE ON WORK ORDER, PERFORM TROUBLE SHOOTING, PERFORM PREVENTIVE MAINTENANCE, ABNORMALITY REPORT TO SUPERVISOR AND ASSIST INJECTION MOULDING PRODUCTION SUPERVISOR IN ALL MACHINERY WORKS.

A PLASTIC PRODUCTION LINE LEADER - “INJECTION MOULDING” MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Perform work base.
2. Perform Trouble Shooting.
3. Perform Preventive Maintenance.
4. Prepare abnormality report to supervisor.
5. Prepare record of all work performed.
6. Lead equipment or system problem identification and recommends solutions.
7. Oversee operation and ensure that appropriate safety procedures are followed and perform other duties as directed by superior.
8. Participate in operator training and continual training.

LEVEL 2

PLASTIC PRODUCTION LINE LEADER - “EXTRUSION-PIPE AND PROFILE”

A PLASTIC PRODUCTION LINE LEADER - “ EXTRUSION-PIPE AND PROFILE” IS DESIGNATED TO PERFORM WORK BASE ON WORK ORDER, PERFORM TROUBLE SHOOTING, PERFORM PREVENTIVE MAINTENANCE, PREPARE ABNORMALITY REPORT TO SUPERVISOR, PREPARE RECORD OF ALL WORK PERFORMED AND ASSIST EXTRUSION PIPE AND PROFILE PRODUCTION SUPERVISOR IN ALL MACHINERY WORKS.

A PLASTIC PRODUCTION LINE LEADER - “EXTRUSION-PIPE AND PROFILE” MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Perform work base on work order.
2. Perform Trouble Shooting.
3. Perform Preventive Maintenance.
4. Prepare abnormality report to supervisor.
5. Perform preventive maintenance.
6. Lead equipment or system problem identification and recommends solutions.
7. Oversee operation and ensure that appropriate safety procedures are followed and perform other duties as directed by superior.
8. Participate in operator training and continual training.

LEVEL 2

PLASTIC PRODUCTION LINE LEADER - “ROTATIONAL MOULDING”

A PLACTIC PRODUCTION LINE LEADER - “ROTATIONAL MOULDING” IS DESIGNATED TO PERFORM WORK BASE ON WORK ORDER, PERFORM TROUBLE SHOOTING, PERFORM PREVENTIVE MAINTENANCE, ABNORMALITY REPORT TO SUPERVISOR, REPORT OF ALL WORK PERFORMED AND ASSIST ROTATIONAL MOULDING PRODUCTION SUPERVISOR IN ALL MACHINERY WORKS.

A PLACTIC PRODUCTION LINE LEADER - “ROTATIONAL MOULDING”MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Perform work base on work order.
2. Perform Trouble Shooting.
3. Perform Preventive Maintenance.
4. Report abnormality to supervisor.
5. Check all maintenance report/record.
6. Lead equipment or system problem identification and recommends solutions.
7. Oversee operation and ensure that appropriate safety procedures are followed and perform other duties as directed by superior.
8. Participate in operator training and continual training.

LEVEL 2

PLASTIC PRODUCTION LINE LEADER - “COMPRESSION MOULDING”

A PLACTIC PRODUCTION LINE LEADER - “COMPRESSION MOULDING” IS DESIGNATED TO PERFORM WORK BASE ON WORK ORDER, PERFORM TROUBLE SHOOTING, PERFORM PREVENTIVE MAINTENANCE, PREPARE ABNORMALITY REPORT TO SUPERVISOR, PREPARE REPORT OF ALL WORK PERFORMED AND ASSIST COMPRESSION MOULDING PRODUCTION SUPERVISOR IN ALL MACHINERY WORKS.

A PLACTIC PRODUCTION LINE LEADER - “COMPRESSION MOULDING” MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Perform work base on work order.
2. Perform trouble shooting
3. Perform preventive maintenance.
4. Prepare abnormality report to supervisor.
5. Prepare record of all work performed.
6. Lead equipment or system problem identification and recommends solutions.
7. Oversee operation and ensure that appropriate safety procedures are followed and perform other duties as directed by superior.
8. Participate in operator training and continual training.

LEVEL 2

PRODUCTION LINE LEADER - “BLOW MOULDING”

A PRODUCTION LINE LEADER - “BLOW MOULDING” IS DESIGNATED TO PERFORM WORK BASE ON WORK ORDER, PERFORM TROUBLE SHOOTING, PERFORM PREVENTIVE MAINTENANCE, PREPARE ABNORMALITY REPORT TO SUPERVISOR, PREPARE REPORT OF ALL WORK PERFORMED AND ASSIST BLOW MOULDING PRODUCTION SUPERVISOR IN ALL MACHINERY WORKS.

A PRODUCTION LINE LEADER - “BLOW MOULDING” MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Perform work base on work order.
2. Perform trouble shooting.
3. Perform preventive maintenance.
4. Prepare abnormality report to supervisor.
5. Prepare record of all work performed.
6. Lead equipment or system problem identification and recommends solutions.
7. Oversee operation and ensure that appropriate safety procedures are followed and perform other duties as directed by superior.
8. Participate in operator training and continual training.

LEVEL 3

PLASTIC PRODUCTION SUPERVISOR - “INJECTION MOULDING”

A PLASTIC PRODUCTION SUPERVISOR - “INJECTION MOULDING” IS DESIGNATED TO ENSURE THE MACHINERY IS MEETING THE COMPANY CAPABILITIES AND SUITABILITY REQUIREMENT, GENERATE WORK ORDER, ABNORMALITY REPORT TO ASSISTANT MANAGER AND ASSIST ASSISTANT PLASTIC PRODUCTION MANAGER IN ALL MACHINERY WORKS.

A PLASTIC PRODUCTION SUPERVISOR - “INJECTION MOULDING” MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Perform work according to Assistant Manager instruction.
2. Supervise a group of technician or workers to ensure industries facility and machinery are in good order.
3. Check the capabilities and suitability of the machineries to that of company requirement.
4. Prepare abnormality report to Assistant Manager.
5. Prepare weekly schedule for the operators.
6. Oversee production in a fast paced environment.
7. Evaluate processes and recommend plant layout changes for work flow, process methods and production equipment improvements.
8. Design, monitor and maintain a safe working environment by ensuring all safety requirements and quality control standards are met.
9. Manage costs effectively related to plant operation.
10. Train and ensure assigned employees are aware of and comply with company and government policies and procedures.
11. Communicate company objectives effectively to co-workers while always working towards the highest standards of safety, quality, efficiency and housekeeping.
12. Foster a team environment by promoting open channels of communication.

LEVEL 3

PLASTIC PRODUCTION SUPERVISOR - “EXTRUSION-PIPE AND PROFILE”

A PLASTIC PRODUCTION SUPERVISOR - “EXTRUSION PIPE AND PROFILE” IS DESIGNATED TO ENSURE THE MACHINERY ARE MEETING THE CAPABILITIES AND SUITABILITY REQUIREMENT, GENERATE WORK ORDER, PREPARE ABNORMALITY REPORT TO EXECUTIVE, PREPARE WEEKLY SCHEDULE FOR THE OPERATORS EXTRUSION PIPE AND PROFILE PRODUCTION ASST. MANAGER IN ALL MACHINERY WORKS.

A PLASTIC PRODUCTION SUPERVISOR - “EXTRUSION PIPE AND PROFILE” MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Perform work according to Assistant Manager instruction.
2. Supervise a group of technician or workers to ensure industries facility and machinery are in good order.
3. Check the capabilities and suitability of the machineries to that of company requirement.
4. Report to Assistant Manager.
5. Prepare weekly schedule for the operators.
6. Generate work order.
7. Oversee production in a fast paced environment.
8. Evaluate processes and recommend plant layout changes for work flow, process methods and production equipment improvements.
9. Design, monitor and maintain a safe working environment by ensuring all safety requirements and quality control standards are met.
10. Manage costs effectively related to plant operation.
11. Train and ensure assigned employees are aware of and comply with company and government policies and procedures.
12. Communicate company objectives effectively to co-workers while always working towards the highest standards of safety, quality, efficiency and housekeeping.
13. Foster a team environment by promoting open channels of communication.

LEVEL 3

PLASTIC PRODUCTION SUPERVISOR - “ROTATIONAL MOULDING”

A PLASTIC PRODUCTION SUPERVISOR - “ROTATIONAL MOULDING” IS DESIGNATED TO ENSURE THE MACHINERY ARE MEETING THE CAPABILITIES AND SUITABILITY REQUIREMENT, GENERATE WORK ORDER, PREPARE ABNORMALITY REPORT TO ASSISTANT MANAGER, AND ASSIST ROTATIONAL MOULDING PRODUCTION ASST. MANAGER IN ALL MACHINERY WORKS.

A PLASTIC PRODUCTION SUPERVISOR - “ROTATIONAL MOULDING” MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Perform work according to Assistant Manager instruction.
2. Supervise a group of Line Leader or workers to ensure industries facility and machinery are in good order.
3. Check the capabilities and suitability of the machineries to that of company requirement.
4. Prepare abnormality report to Assistant Manager.
5. Prepare weekly schedule for the operators.
6. Oversee production in a fast paced environment.
7. Evaluate processes and recommend plant layout changes for work flow, process methods and production equipment improvements.
8. Design, monitor and maintain a safe working environment by ensuring all safety requirements and quality control standards are met.
9. Manage costs effectively related to plant operation.
10. Train and ensures assigned employees are aware of and comply with company and government policies and procedures.
11. Communicate company objectives effectively to co-workers while always working towards the highest standards of safety, quality, efficiency and housekeeping.
12. Foster a team environment by promoting open channels of communication.

LEVEL 3

PLASTIC PRODUCTION SUPERVISOR - "COMPRESSION MOULDING"

A PLASTIC PRODUCTION SUPERVISOR - "COMPRESSION MOULDING" IS DESIGNATED TO ENSURE THE MACHINERY ARE MEETING THE CAPABILITIES AND SUITABILITY REQUIREMENT, GENERATE WORK ORDER, PREPARE ABNORMALITY REPORT TO ASSISTANT MANAGER, PREPARE WEEKLY SCHEDULE FOR THE OPERATORS AND ASSIST ASSISTANT PLASTIC PRODUCTION MANAGER IN ALL MACHINERY WORKS.

A PLASTIC PRODUCTION SUPERVISOR - "COMPRESSION MOULDING" MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Perform work according to Assistant Manager instruction.
2. Supervise a group of technician or workers to ensure industries facility and machinery are in good order.
3. Check the capabilities and suitability of the machineries to that of company requirement.
4. Prepare abnormality report to Assistant Engineer.
5. Prepare weekly schedule for the operators.
6. Oversee production in a fast paced environment.
7. Evaluate processes and recommend plant layout changes for work flow, process methods and production equipment improvements.
8. Design, monitor and maintain a safe working environment by ensuring all safety requirements and quality control standards are met.
9. Manage costs effectively related to plant operation.
10. Train and ensure assigned employees are aware of and comply with company and government policies and procedures.
11. Communicate company objectives effectively to co-workers while always working towards the highest standards of safety, quality, efficiency and housekeeping.
12. Foster a team environment by promoting open channels of communication.

LEVEL 3

PRODUCTION SUPERVISOR - “BLOW MOULDING”

A PRODUCTION SUPERVISOR - “BLOW MOULDING” IS DESIGNATED TO ENSURE THE MACHINERY ARE MEETING THE CAPABILITIES AND SUITABILITY REQUIREMENT, PREPARE ABNORMALITY REPORT TO ASSISTANT MANAGER, PREPARE WEEKLY SCHEDULE FOR THE OPERATORS AND ASSIST ASSISTANT PLASTIC PRODUCTION MANAGER IN ALL MACHINERY WORKS.

A PRODUCTION SUPERVISOR - “BLOW MOULDING” MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Perform work according to Assistant Manager instruction.
2. Supervise a group of technician or workers to ensure industries facility and machinery are in good order.
3. Check the capabilities and suitability of the machineries to that of company requirement.
4. Prepare abnormality report to Assistant Manager.
5. Prepare weekly schedule for the operators.
6. Oversee production in a fast paced environment.
7. Evaluate processes and recommend plant layout changes for work flow, process methods and production equipment improvements.
8. Design, monitor and maintain a safe working environment by ensuring all safety requirements and quality control standards are met.
9. Manage costs effectively related to plant operation.
10. Train and ensure assigned employees are aware of and comply with company and government policies and procedures.
11. Communicate company objectives effectively to co-workers while always working towards the highest standards of safety, quality, efficiency and housekeeping.
12. Foster a team environment by promoting open channels of communication.

LEVEL 4

ASSISTANT PLASTIC PRODUCTION MANAGER

AN ASSISTANT PLASTIC PRODUCTION MANAGER IS DESIGNATED TO ASSISTANT MANAGER AND SUPERVISING A GROUP OF SUPERVISORS OR WORKERS TO ENSURE RUBBER AND PLASTIC INDUSTRIES FACILITY AND MACHINERY ARE IN GOOD ORDER AND ASSIST PLASTIC PRODUCTION MANAGER IN ALL MACHINERY WORKS.

AN ASSISTANT PLASTIC PRODUCTION MANAGER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Supervise a group of supervisors or workers to ensure Rubber and Plastic Industries facility and machinery are in good order.
2. Check the capabilities and suitability of the machineries, manpower and material to that of company requirement
3. Check all maintenance report/record.
4. Prepare annual budget and monitor expenditure.
5. Prepare staff performance and development.
6. Train and develop other employees in performing preventive maintenance and routine equipment service activities.
7. Practice situational leadership, safety and environmental stewardship.
8. Lead equipment or system problem identification and recommends solutions.
9. Prepare necessary report and improvement recommendations for management review.
10. Manage preventive maintenance tasks and records preventive maintenance activities.

LEVEL 5

PLASTIC PRODUCTION MANAGER

A PLASTIC PRODUCTION MANAGER IS DESIGNATED TO PREPARE NECESSARY REPORT AND IMPROVEMENT RECOMMENDATIONS FOR MANAGEMENT REVIEW, PREPARE ANNUAL BUDGET AND MONITOR EXPENDITURE IN ALL MACHINERY WORKS.

A PLASTIC PRODUCTION MANAGER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Prepare necessary report and improvement recommendations for management review.
2. Prepare annual budget and monitor expenditure.
3. Prepare staff performance and development.
4. Check the capabilities and suitability of the machineries, manpower and material to that of company requirement.
5. Supervise a group of supervisors or workers to ensure Rubber and Plastic Industries facility and machinery are in good order.
6. Manage and ensure that appropriate safety procedures are followed.
7. Develop operating procedures for plant equipment to ensure consistent and safe operation.
8. Manage and record preventive maintenance tasks and activities
9. Practice situational leadership, safety and environmental stewardship.

LEVEL 6

PLASTIC PLANT SENIOR MANAGER

A PLASTIC PLANT SENIOR MANAGER IS DESIGNATED TO DEVELOPS LONG AND SHORT-RANGE PLANNING, POLICIES, PROGRAMS AND OBJECTIVES ASSOCIATED WITH THE MANUFACTURE OF THE COMPANY'S PARTS AND PRODUCTS.

A PLASTIC PLANT SENIOR MANAGER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Formulate and implement Manufacturing Department's plan to support corporate objectives.
2. Implement, monitored, control, plan operational activities to achieve targeted performance in quality, cost and delivery.
3. Organize the Manufacturing Department structure, procedures, job responsibility and functionality of subordinates.
4. Monitor and report on quality, productivity and activities on a periodical basis to general manager/managing director with analysis of the source of contributing factors on the achievement or failure.
5. Review and analyze reports.
6. Facilitate training for staff development.
7. Leading and motivating subordinates to achieve their set objectives.
8. Measure and monitoring subordinates' performance accordingly.
9. Review and monitor production performance regularly.
10. Facilitate the cost saving and process improvement to all manufacturing functions.
11. Conduct regular production meeting to monitor production performances.
12. Lead Occupational Safety And Health (OSH), Good Manufacturing Practice (GMP), International Organization for Standardization (ISO) and other system recognize by the Management.
13. Leads the initiation of improvements in production methods, equipment, operating procedures and working conditions.
14. Perform other minor or ad-hoc activity or function.

JOB TITLES

(SPECIALISED M&E – MINING MACHINERY)

LEVEL 1

Not Available

LEVEL 2

DREDGING OPERATOR

MINING OPERATOR

SMELTING OPERATOR

LEVEL 3

DREDGING SUPERVISOR

MINING SUPERVISOR

SMELTING SUPERVISOR

LEVEL 4

Not Available

LEVEL 5

Not Available

LEVEL 6

Not Available

LEVEL 7

Not Available

LEVEL 8

Not Available

LEVEL 2

DREDGING OPERATOR

A DREDGING OPERATOR IS DESIGNATED TO OPERATE SURFACE OR UNDERGROUND MINING EQUIPMENT, MONITOR THE PERFORMANCE OF EQUIPMENT AND ADJUSTS CONTROLS, COMMUNICATE WITH OTHER OPERATORS TO COORDINATE EARTHMOVING OPERATIONS AND ASSIST DREDGING SUPERVISOR IN ALL MACHINERY WORKS.

A DREDGING OPERATOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Operate surface or underground mining equipment.
2. Monitor the performance of equipment and adjust controls.
3. Communicate with other operators to coordinate earthmoving operations.
4. Perform routine maintenance functions.
5. Complete log sheets detailing operations during shifts.
6. Perform trouble shooting.
7. Perform work base on work order.
8. Work under dredging instruction or supervision.
9. Perform general housekeeping and continuous improvement of the facility appearance.

* Pre-requisite:
  Dredging Operator is to be qualified from general worker who has 2 years working experience in area of dredging.

LEVEL 2

MINING OPERATOR

A MINING OPERATOR IS DESIGNATED TO OPERATE SURFACE OR UNDERGROUND MINING EQUIPMENT, MONITOR THE PERFORMANCE OF EQUIPMENT AND ADJUSTS CONTROLS, COMMUNICATE WITH OTHER OPERATORS TO COORDINATE EARTHMOVING OPERATIONS AND ASSIST MINING SUPERVISOR IN ALL MACHINERY WORKS.

A MINING OPERATOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Operate surface or underground mining equipment.
2. Monitor the performance of equipment and adjusts controls.
3. Communicate with other operators to coordinate earthmoving operations.
4. Operate equipment using electronic controls, sensors and monitors.
5. Complete log sheets detailing operations during shifts.
6. Perform trouble shooting.
7. Perform work base on work order.
8. Work under mining instruction or supervision.
9. Perform general housekeeping and continuous improvement of the facility appearance.

* Pre-requisite:
  Mining Operator is to be qualified from general worker who has 2 years working experience in area of mining.

LEVEL 2

SMELTING OPERATOR

A SMELTING OPERATOR IS DESIGNATED TO DRAW SMELTED METAL SAMPLES FROM FURNACES OR KETTLES FOR ANALYSIS, AND CALCULATE TYPES AND AMOUNTS OF MATERIALS NEEDED TO ENSURE THAT MATERIALS MEET SPECIFICATIONS.

A SMELTING OPERATOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Drain, transfer, or remove molten metal from furnaces, and place it into molds, using hoists, pumps, or ladles.
2. Record production data, and maintain production logs.
3. Operate controls to move or discharge metal workpieces from furnaces.
4. Observe operations inside furnaces, using television screens, to ensure that problems do not occur.
5. Weigh materials to be charged into furnaces, using scales.
6. Regulate supplies of fuel and air, or control flow of electric current and water coolant to heat furnaces and adjust temperatures.
7. Inspect furnaces and equipment to locate defects and wear.
8. Observe air and temperature gauges or metal color and fluidity, and turn fuel valves or adjust controls to maintain required temperatures.
9. Remove impurities from the surface of molten metal, using strainers.
10. Kindle fires, and shovel fuel and other materials into furnaces or onto conveyors by hand, with hoists, or by directing crane operators.
11. Sprinkle chemicals over molten metal to bring impurities to the surface.
12. Direct work crews in the cleaning and repair of furnace walls and flooring.

13. Prepare material to load into furnaces, including cleaning, crushing, or applying chemicals, by using crushing-machines, shovels, rakes or sprayers.
14. Scrape accumulations of metal oxides from floors, molds and crucibles, and sift and store them for reclamation.

* Pre-requisite:
  Smelting Operator is to be qualified from general worker who has 2 years working experience in area of smelting.

LEVEL 3

DREDGING SUPERVISOR

A DREDGING SUPERVISOR IS DESIGNATED TO CONDUCT OF DREDGING ACTIVITIES, RETREATING, CENTRE-LINE CHANGES, ANCHOR MOVES, SIDELINE, CABLE REPLACEMENT, PLANT MOVES IN THE EXTRACTIVE PROCESSES IN THE OPEN CAST ENVIRONMENT IN ALL MACHINERY WORKS.

A DREDGING SUPERVISOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Perform routine maintenance functions.
2. Undertake development work such as opening up new shafts, drives, air vents, rises, winzes or crib rooms.
3. Complete log sheets detailing operations during shifts.
4. Operate equipment using electronic controls, sensors and monitors.
5. Monitor the performance of equipment and adjusts controls.
6. Train and ensure assigned employees are aware of and comply with company and government policies and procedures.
7. Communicate company objectives effectively to co-workers while always working towards the highest standards of safety, quality, efficiency and housekeeping.
8. Foster a team environment by promoting open channels of communication.
9. Oversee production in a fast paced environment.

LEVEL 3

MINING SUPERVISOR

A MINING SUPERVISOR IS DESIGNATED TO EXCAVATE, LOAD AND TRANSPORT COAL, ORE, MINERAL SAND AND ROCK EITHER UNDERGROUND OR IN OPEN-CAST MINES. UNDERGROUND MINERS TRAVEL DOWN VERTICAL SHAFTS OR SLOPING DECLINES TO REACH THE WORK FACE. OPEN-CAST AND SURFACE MINERS EXTRACT THE MINERAL ORE USING MINING MACHINES, DRILLING AND BLASTING METHODS, RIPPING (E.G. BY BULLDOZER) OR DREDGING IN ALL MACHINERY WORKS.

A MINING SUPERVISOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Perform routine maintenance functions.
2. Undertake development work such as opening up new shafts, drives, airvents, rises, winzes or crib rooms.
3. Generate work order.
4. Communicate with other operators to coordinate earthmoving operations.
5. Check all maintenance report/record.
6. Train and ensures assigned employees are aware of and comply with company and government policies and procedures.
7. Communicate company objectives effectively to co-workers while always working towards the highest standards of safety, quality, efficiency and housekeeping.
8. Foster a team environment by promoting open channels of communication.
9. Oversee production in a fast paced environment.

LEVEL 3

SMELTING SUPERVISOR

A SMELTING SUPERVISOR IS DESIGNATED TO SUPERVISES AND COORDINATES ACTIVITIES OF WORKERS ENGAGED IN OPERATING OPEN-HEARTH, ELECTRIC-ARC OR OXYGEN FURNACES TO PRODUCE STEEL.

A SMELTING SUPERVISOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Directs workers in charging furnace with specified raw material and in taking temperature tests of molten metal.
2. Observes color of molten metal through cobalt-blue glasses, and orders changes in furnace temperature.
3. Coordinates charging and melting with molding and pouring operations.
4. Performs other duties as described under SUPERVISOR (industry) Master Title.
5. May also be designated according to type of furnace as Melter Supervisor, Electric-Arc Furnace (mill industry), Melter Supervisor, Open-Hearth Furnace (mill industry), Melter Supervisor, Oxygen Furnace (mill industry).
6. Supervises and coordinates activities of workers engaged in tending reduction pots to smelt aluminum oxide into aluminum.
7. Observes gas flames, warning lights and voltmeters on pots to verify specified power input.
8. Signals POT TENDER (smelting) to raise and lower anode to restore pot to normal operation.
9. Supervises and coordinates activities of workers engaged in tapping remelt furnaces, and in fluxing aluminum alloy preparatory to casting.

10. Directs workers in tapping of aluminum alloy from remelt furnaces into ladles and in introducing chlorine gas into ladles to flux molten alloys.
11. Directs overhead crane operator (industry) 921.663-010 in moving ladles from tapping position to casting units.
12. Records temperature and time of tapping furnaces and of fluxing ladles.
13. May also supervise workers engaged in collecting and weighing charges of aluminum and other metals for melting into alloys and be designated Metal Expediter (primary industry).

JOB TITLES

(SPECIALISED M&E – INDUSTRIAL AUTOMATION & MECHATRONICS)

LEVEL 1

INDUSTRIAL MANUFACTURING ASSISTANT

LEVEL 2

SENIOR INDUSTRIAL MANUFACTURING ASSISTANT

LEVEL 3

INDUSTRIAL MANUFACTURING TECHNICIAN

LEVEL 4

MECHATRONIC ASSISTANT ENGINEER

INDUSTRIAL AUTOMATION ASSISTANT ENGINEER

LEVEL 5

MECHATRONIC ENGINEER

INDUSTRIAL AUTOMATION ENGINEER

LEVEL 5

Not Available

LEVEL 5

Not Available

LEVEL 5

Not Available

LEVEL 1

INDUSTRIAL MANUFACTURING ASSISTANT

AN INDUSTRIAL MANUFACTURING ASSISTANT IS DESIGNATED TO BE RESPONSIBLE FOR PREVENTIVE MECHANICAL MAINTENANCE AND REPAIR OF A WIDE VARIETY MANUFACTURING AND PACKAGING EQUIPMENT OF THE PRODUCTION AREA WHEN LINE PROBLEMS AND/ OR LINE STOPPAGES OCCUR. PARTICIPATE IN DIRECT MANUFACTURING, PACKAGING AND PROCESSING EQUIPMENT AND ASSIST SENIOR INDUSTRIAL MANUFACTURING ASSISTANT IN ALL MAINTENANCE WORK.

AN INDUSTRIAL MANUFACTURING ASSISTANT MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Responsible for the planned/preventive mechanical maintenance and repair.
2. Perform troubleshoot activities in the event of equipment failure.
3. Work under instruction/supervisor of technician.
4. Perform inspection to ensure all equipment and machinery is in good order.
5. Responsible for team on calls to production and quality control areas.

LEVEL 2

SENIOR INDUSTRIAL MANUFACTURING ASSISTANT

A SENIOR INDUSTRIAL MANUFACTURING ASSISTANT IS DESIGNATED TO BE RESPONSIBLE FOR PREVENTIVE MECHANICAL MAINTENANCE AND REPAIR OF A WIDE VARIETY MANUFACTURING AND PACKAGING EQUIPMENT OF THE PRODUCTION AREA WHEN LINE PROBLEMS AND/ OR LINE STOPPAGES OCCUR. PARTICIPATE IN DIRECT MANUFACTURING, PACKAGING AND PROCESSING EQUIPMENT AND ASSIST INDUSTRIAL MANUFACTURING SUPERVISOR IN ALL MAINTENANCE WORK.

A SENIOR INDUSTRIAL MANUFACTURING ASSISTANT MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Responsible for the planned/preventive mechanical maintenance and repair.
2. Perform troubleshoot activities in the event of equipment failure.
3. Work under instruction/supervisor of technician.
4. Interface with machine tools and special engineering projects as required.
5. Responsible for team on calls to production and quality control areas.

LEVEL 3

INDUSTRIAL MANUFACTURING TECHNICIAN

AN INDUSTRIAL MANUFACTURING TECHNICIAN IS DESIGNATED TO BE RESPONSIBLE FOR PERFORM PREVENTIVE MECHANICAL MAINTENANCE AND REPAIR OF A WIDE VARIETY MANUFACTURING AND PACKAGING EQUIPMENT OF THE PRODUCTION AREA WHEN LINE PROBLEMS AND/ OR LINE STOPPAGES OCCUR. PARTICIPATE IN DIRECT MANUFACTURING, PACKAGING AND PROCESSING EQUIPMENT AND ASSIST MECHATRONIC EXECUTIVE IN ALL MAINTENANCE WORK.

AN INDUSTRIAL MANUFACTURING TECHNICIAN MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Establish and evaluate manufacturing costs.
2. Perform maintenance on Computer Numerical Control (CNC) machines including operation, programming and troubleshooting.
3. Identify and educate operator on appropriate.
4. Test modules and troubleshoot existing equipment for electrical or work.
5. Interface with machine tools and special engineering projects as required.
6. Responsible for team on calls to production and quality control areas.

LEVEL 4

MECHATRONIC ASSISTANT ENGINEER

A MECHATRONIC ASSISTANT ENGINEER IS DESIGNATED TO READ AND UNDERSTAND BLUE PRINTS AND TEST SPECIFICATIONS AND TECHNICAL UNDERSTANDING OF ELECTRO-MECHANICAL SUBASSEMBLIES. EXPEDITE THE RESOLUTION OF TECHNICAL ISSUES THAT CAUSE PRODUCTION SHUTDOWNS. IMPLEMENT DESIGN CHANGES INTO MANUFACTURING WITH MINIMUM COST AND SCHEDULE IMPACT. INTERFACE WITH DEVELOPMENT, MANUFACTURING, PURCHASING AND SUPPLIERS ON PROCESS/COST IMPROVEMENT PROJECTS BY USING COMPUTERS AND OTHER MEDIA.

A MECHATRONIC ASSISTANT ENGINEER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Read and understand blue prints and test specifications.
2. Expedite the resolution of technical issues that cause production shutdowns.
3. Implement design changes into manufacturing with minimum cost and schedule impact.
4. Interface with development, manufacturing, purchasing and suppliers on process/cost improvement projects.
5. Interface with machine tools and special engineering projects as required.
6. Responsible for team on calls to production and quality control areas.

LEVEL 4

INDUSTRIAL AUTOMATION ASSISTANT ENGINEER

AN INDUSTRIAL AUTOMATION ASSISTANT ENGINEER IS DESIGNATED TO CONDUCT RESEARCH/DEVELOPMENT PROJECTS ASSOCIATED WITH THE DESIGN AND DEVELOPMENT OF PRODUCTS, MODELS, MECHANISMS AND ADAPTATIONS FOR SPECIFIC APPLICATIONS OF ROBOTIC END EFFECTORS AND TOOLS.

AN INDUSTRIAL AUTOMATION ASSISTANT ENGINEER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Conduct research/development projects associated with the design and development of products, models, mechanisms and adaptations for specific applications of robotic end effectors and tools.
2. Work with other engineers, designers and manufacturing personnel to complete design projects.
3. Investigate and resolve technical problems involving product performance
4. Support existing products through an ongoing process of continuous improvements and engineering changes to enhance performance and manufacturability.
5. Test prototypes and released products to verify design to customer specifications and document with reports.
6. Determine and establish specifications and standards and write manuals, manufacturing and inspection instructions, specification sheets and technical reports for new and existing products.
7. Coordinate all phases of development including creation, prototypes, testing and analysis.
8. Perform a variety of engineering tasks in the planning and design of electro-mechanical products, manufacturing and assembly tooling, electrical enclosures and cable assemblies.

9. Determine and establish specifications through engineering calculations and layouts. Use appropriate engineering tools such as, CAD, FMEA, DFA, in the successful completion of design projects.
10. Work with suppliers to assure that the most cost effective, robust designs are implemented.
11. Provide support to customers including travel to customer's facilities as required.

LEVEL 5

MECHATRONIC ENGINEER

A MECHATRONIC ENGINEER IS DESIGNATED TO READ AND UNDERSTAND BLUE PRINTS AND TEST SPECIFICATIONS AND TECHNICAL UNDERSTANDING OF ELECTRO-MECHANICAL SUBASSEMBLY. EXPEDITE THE RESOLUTION OF TECHNICAL ISSUES THAT CAUSE PRODUCTION SHUTDOWNS. IMPLEMENT DESIGN CHANGES INTO MANUFACTURING WITH MINIMUM COST AND SCHEDULE IMPACT. INTERFACE WITH DEVELOPMENT, MANUFACTURING, PURCHASING AND SUPPLIERS ON PROCESS/COST IMPROVEMENT PROJECTS. USE COMPUTERS AND OTHER MEDIA TO COMMUNICATE INFORMATION.

A MECHATRONIC ENGINEER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Perform troubleshooting microprocessor controlled digital and analog circuits to component level.
2. Expedite the solution of technical issues that cause production shutdowns.
3. Implement design changes into manufacturing with minimum cost and schedule impact.
4. Responsible for team on calls to production and quality control areas.
5. Use automatic test equipment instrumentation and programming techniques.
6. Apply statistical process controls and ISO9000 standards.
7. Coordinate and participate in test department training activities.

LEVEL 5

INDUSTRIAL AUTOMATION ENGINEER

AN INDUSTRIAL AUTOMATION ENGINEER IS DESIGNATED TO CONDUCT RESEARCH/DEVELOPMENT PROJECTS ASSOCIATED WITH THE DESIGN AND DEVELOPMENT OF PRODUCTS, MODELS, MECHANISMS AND ADAPTATIONS FOR SPECIFIC APPLICATIONS OF ROBOTIC END EFFECTORS AND TOOLS.

AN INDUSTRIAL AUTOMATION ENGINEER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Analyse user requirements for Distribution Control System (DCS), DCS designs logic and program specifications including testing and debugging.
2. Provide daily support to users of Distribution Control System (DCS) based on daily requests received.
3. Discus major modification requirements with Sr. Automation Engineer and implements minor modifications directly.
4. Participate in the configuration of graphics, reports and database of Distribution Control System (DCS), real time database Proportional-Integral (PI) and plant information system and network.
5. Monitor Distribution Control System (DCS) performance and proposes modifications / enhancement and tuning to the hardware, operating systems and communication systems to improve system efficiency and performance.
6. Liaise and discuses with Process Engineers any process related modifications such as material balance, fuel balance and advanced control and proposes solutions as appropriate from software point of view.
7. Participate in the commissioning and acceptance testing of newly installed Distribution Control System (DCS), Plant automation system and new releases of systems and applicable software's revisions. Coordinates with Automation & Information System engineers and vendors on all related issues.

8. Participate with Maintenance personnel in diagnosing Distribution Control System (DCS) failures providing solutions as required.
9. Monitor the work of external consultants, contractors and engineers involved in the design and maintenance of Distribution Control System (DCS), Proportional-Integral (PI), advanced process control (APC) and plant automation.
10. Perform in training engineers, systems users, trainees and develop on the proper use and efficient utilization of Distribution Control System (DCS), Proportional-Integral (PI) and advanced process control (APC).
11. Perform a variety of engineering tasks in the planning and design of electro-mechanical products, manufacturing and assembly tooling, electrical enclosures and cable assemblies.
12. Determine and establish specifications through engineering calculations and layouts.
13. Use appropriate engineering tools such as Computer-aided design (CAD), Failure Mode and Effect Analysis (FMEA), in the successful completion of design projects.

JOB TITLES

(METAL WORKING M&E FOUNDRY, METAL CUTTING CNC & SHEET METAL WORKING)

LEVEL 1

FOUNDRYMAN
GENERAL MACHINIST
SHEET METAL FABRICATOR

LEVEL 2

SENIOR FOUNDRYMAN
GENERAL MACHINIST EDM WIRECUT
GENERAL MACHINIST- LATHE TURNING OPERATING
GENERAL MACHINIST- MILLING OPERATION
GENERAL MACHINIST-GRINDING OPERATION
CNC MACHINIST
SHEET METAL TECHNICIAN

LEVEL 3

FOUNDRY TECHNICIAN (PATTERN MAKING)
FOUNDRY TECHNICIAN (MOULD & CORE MAKING)
FOUNDRY TECHNICIAN (MELTING)
FOUNDRY TECHNICIAN (DIE CASTING)
MACHINIST EDM WIRECUT
MACHINIST - LATHE TURNING OPERATION
MACHINIST - MILLING OPERATION
MACHINIST - GRINDING OPERATION
'COMPUTER NUMERICAL CONTROL' (CNC) TECHNICIAN
SHEET METAL SENIOR TECHNICIAN

LEVEL 4

MOULD EXECUTIVE

ASSISTANT MANUFACTURING ENGINEER (CAD/CAM/CAE)

LEVEL 5

FOUNDRY MANAGER

MANUFACTURING ENGINEER (CAD/CAM/CAE)

LEVEL 6

Not Available

LEVEL 7

Not Available

LEVEL 8

Not Available

LEVEL 1

FOUNDRYMAN

A FOUNDRYMAN IS DESIGNATED TO OPERATE PAPER PRODUCT MACHINERY, WORK UNDER INSTRUCTION/SUPERVISOR AND ASSIST MOULD SENIOR OPERATOR IN ALL MACHINERY WORKS.

A FOUNDRYMAN MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Work under instruction/supervisor mould senior operator.
2. Perform inspection to ensure pattern/mould & core operator and machinery are in good operation.
3. Perform work base on work order.
4. Prepare record of all work performed.
5. Report all incident and accident.
6. Perform routine maintenance and repairs on equipment
7. Prepare report abnormality to mould senior operator.
8. Operate, maintain, troubleshoot and repair equipment.
9. Perform general housekeeping and continuous improvement of the appearance of the facility.

LEVEL 1

GENERAL MACHINIST

A GENERAL MACHINIST IS DESIGNATED TO CONFIRM MACHINE SET UP SO THAT IS CONDUCIVE FOR OPERATOR TO OPERATE.

A GENERAL MACHINIST MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Check and inspect safety feature of machine & equipment comply with Regulation Standard.
2. Check and inspect Personal Protective Equipment (PPE) meet Safety Regulation & Standard.
3. Interpret drawings against standard (symbols limit, fit & tolerance etc).
4. Check linear and angular measurement on work piece.
5. Carry out tool cutting on external & internal thread (tap & dies)
6. Carry out knocking and hammering on work piece (riveting, assembling etc.)
7. Cut metal work piece (filing, chiseling, sawing, chain drilling).
8. Carry out hand scraping on metal work piece.
9. Carry out taper turning (compound slide & offsetting tailstock).
10. Prepare process planning for milling operation.
11. Prepare material for machining operation and select milling machine, accessories and attachment.
12. Set up work piece on machine.
13. Carry out vertical milling operation (boring, pocket, slotting, taper boring)

LEVEL 1

SHEET METAL FABRICATOR

SHEET METAL FABRICATOR IS DESIGNATED TO CARRY OUT JOB ASSIGNED BY USING METAL-SHAPING AND SHEET-METAL WORKING MACHINE TOOLS SUCH AS SHEARING AND SLITTING MACHINES, TURRET PUNCHES, LASER CUTTING MACHINES, PRESS BRAKES AND HYDRAULIC AND POWER PRESSES.

SHEET METAL FABRICATOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY ESPECIALLY IN METAL MACHINING WORKS.

In particular the person will:

1. Apply safe work practice and adhere to safety rules and regulations.
2. Read and interpret drawing before performing works.
3. Carry out materials identification to avoid mistake.
4. Use and maintain marking, measuring tools and gauges.
5. Use and maintain hand tools, power and pneumatic tools.
6. Use and maintain machine and equipment properly with safe handling.
7. Perform bench fitting work.
8. Prepare sheet metal-ferrous and nonferrous as per job order.
9. Cut and form ferrous and non-ferrous metal as per job order.
10. Joint ferrous and nonferrous materials as per job order.
11. Carry out finishing work on finished product
12. Participate in training to improve skills and knowledge.
13. Adhere the safety procedures while working.

LEVEL 2

SENIOR FOUNDRYMAN

A SENIOR FOUNDRYMAN IS DESIGNATED TO SUPERVISE A GROUP OF OPERATOR TO ENSURE MOULD AND MACHINERY ARE IN GOOD ORDER, PERFORM WORK BASE ON WORK ORDER, PREPARE REPORT ABNORMALITY TO SUPERVISOR, PREPARE RECORD OF ALL WORK PERFORMED AND ASSIST MOULD SUPERVISOR IN ALL MACHINERY WORKS.

A SENIOR FOUNDRYMAN MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Supervise a group of operator to ensure mould and machinery are in good order.
2. Perform work base on work order.
3. Prepare report abnormality to supervisor.
4. Check all maintenance report/record.
5. Perform inspection to ensure pattern/mould & core operator and machinery are in good operation.
6. Check safety conditions and avoid damage to plants.
7. Operate a wide range of mechanical equipment.
8. Maintain foundry equipment and tools.
9. Supervise a group of foundryman to ensure machinery is in good order.
10. Prepare record of all work performed.
11. Perform general housekeeping and continuous improvement of the appearance of the facility.

LEVEL 2

GENERAL MACHINIST EDM WIRECUT

A GENERAL MACHINIST EDM WIRECUT IS DESIGNATED TO SET UP AND RUN MACHINES AS WELL AS DOING THEIR OWN INSPECTION REPORTS.

A GENERAL MACHINIST ELECTRICAL DISCHARGE MACHINING (EDM) WIRECUT MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Operating wire machines and performing daily maintenance.
2. Perform light inspection of completed parts: Mic, gage pin, packaging and/ or cleaning.
3. Carry out Wire EDM programming editing.
4. Carry out EDM machine set-up and operation.
5. Read blue print before performing job instructed.
6. Carry out change bits and settings on machine.
7. Measure parts and notice any quality issues as they pull them from the machine.
8. Inspect parts in process.
9. Read off blueprints when needed.
10. Work with very small pieces and tiny parts.
11. Perform other duties as per instructed by superior.

LEVEL 3

MACHINIST EDM WIRECUTE

A MACHINIST EDM WIRECUT IS DESIGNATED TO SET UP, OPERATE AND PROGRAM A WIRE EDM

A MACHINIST ELECTRICAL DISCHARGE MACHINING (EDM) WIRECUT MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Performs programming, set-ups, and operation of both Wire and Probe (Die Sinker) E.D.M./EDM machines.
2. Interprets blueprints and schematics to ensure that all parts are manufactured according to specifications.
3. Perform dimensional inspection of manufactured parts using measuring instruments such as calipers, micrometers, comparators and height gauges.
4. Establish cutter compensations and tool offsets, and identifies, sharpens, and changes dull tooling as needed.
5. Use shop math and machine shop theory in order to ensure precision machining according to close tolerances.
6. Perform various hand finishing operations as required.
7. Work closely with engineers and toolmakers in the areas of fixture design, cutting tool design, process development and part design.
8. Make minor fixture modifications and repairs.
9. Troubleshoot problems in production and development.
10. Prepare materials and work orders for production as needed.
11. Supervise subordinate work and guide subordinate to meet company objective.

LEVEL 2

GENERAL MACHINIST (LATHE TURNING OPERATION)

A GENERAL MACHINIST (LATHE TURNING OPERATION) IS DESIGNATED TO USE MACHINE TOOLS, SUCH AS LATHES MACHINES AND MACHINING CENTERS, TO PRODUCE PRECISED METAL PARTS. ALTHOUGH THEY MAY PRODUCE LARGE QUANTITIES OF ONE PART, PRECISED MACHINIST OFTEN PRODUCE SMALL BATCHES OR ONE OF KIND ITEMS.

A GENERAL MACHINIST (LATHE TURNING OPERATION) MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Interpret components drawing.
2. Carry out hand scraping on metal work piece.
3. Identify basic structure of metallurgical tool steel.
4. Determine type of maintenance requirement.
5. Carry out internal & external multi start V thread cutting.
6. Carry out eccentric turning operation.
7. Carry out thread cutting for square & ACME thread.
8. Carry out boring, undercut and tapering processes on lathe (universal boring head).

LEVEL 2

GENERAL MACHINIST (MILLING OPERATION)

A GENERAL MACHINIST (MILLING OPERATION) IS DESIGNATED TO USE MACHINE TOOLS, SUCH AS MILLING MACHINES AND MACHINING CENTERS, TO PRODUCE PRECISION METAL PARTS. ALTHOUGH THEY MAY PRODUCE LARGE QUANTITIES OF ONE PART, PRECISED MACHINIST OFTEN PRODUCE SMALL BATCHES OR ONE OF KIND ITEMS.

A GENERAL MACHINIST (MILLING OPERATION) MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Carry out hand scraping on metal work piece.
2. Identify basic structure of metallurgical tool steel.
3. Determine type of maintenance requirement.
4. Carry out tapping on milling machine.
5. Cut blind pocket on milling machine (precion pocket).
6. Cut spur gear on milling machine.
7. Cut spline on milling machine.

LEVEL 2

GENERAL MACHINIST (GRINDING OPERATION)

A GENERAL MACHINIST (GRINDING OPERATION) IS DESIGNATED TO USE MACHINE TOOLS, SUCH AS GRINDING MACHINES AND MACHINING CENTERS, TO PRODUCE PRECISED METAL PARTS. ALTHOUGH THEY MAY PRODUCE LARGE QUANTITIES OF ONE PART, PRECISED MACHINIST OFTEN PRODUCE SMALL BATCHES OR ONE OF KIND ITEMS.

A GENERAL MACHINIST (GRINDING OPERATION) MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Carry out hand scraping on metal work piece.
2. Identify basic structure of metallurgical tool steel.
3. Determine type of maintenance requirement.
4. Carry out internal & external multi start V thread cutting.
5. Carry out eccentric turning operation.
6. Carry out internal & external cylindrical taper grinding.
7. Carry out tool & cutter grinding.
8. Prepare process planning for EDM operation.
9. Prepare electrode for EDM operation (die sinking).
10. Set up work piece and electrode on EDM (die sinking).
11. Carry out EDM operation.

LEVEL 2

CNC MACHINIST

A CNC MACHINIST IS DESIGNATED TO USE MACHINE TOOLS, SUCH AS LATHES, MILLING MACHINES, AND MACHINING CENTERS, TO PRODUCE PRECISED METAL PARTS. ALTHOUGH THEY MAY PRODUCE LARGE QUANTITIES OF ONE PART, PRECISED MACHINIST OFTEN PRODUCE SMALL BATCHES OR ONE OF KIND ITEMS.

A CNC MACHINIST MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Conduct daily inspection on CNC lathe machine.
2. Prepare program for CNC lathe (dry run).
3. Set up work piece on CNC lathe and CNC milling machine.
4. Set up lathe and milling cutting tool.
5. Carry out CNC turning and CNC milling operation (drilling, taper turning, thread cutting, milling, offsetting knurling).
6. Inspect product after machining.
7. Conduct daily inspection on CNC milling machine and EDM - wire cut - machine.
8. Prepare program for CNC milling machine (dry run) and CNC - EDM Operation.
9. Prepare machining program on CAD/CAM software.
10. Perform 2D and 3D - CNC milling operation.
11. Set up work piece on CNC - EDM wire cut machine.
12. Set up wire for CNC - EDM wire cut operation.
13. Carry out CNC - EDM wire cut operation.
14. Inspect product after machining.

15. Conduct daily inspection on EDM - die sinking - machine.
16. Prepare electrode for EDM - die sinking process.
17. Set up work piece for EDM - die sinking machine.
18. Carry out die sinking operation.
19. Prepare program for CNC die sinking operation.
20. Carry out CNC die sinking operation.

LEVEL 2

SHEET METAL TECHNICIAN

SHEET METAL TECHNICIAN IS DESIGNATED TO CARRY OUT JOB ASSIGNED BY USING METAL-SHAPING AND SHEET-METAL WORKING MACHINE TOOLS SUCH AS SHEARING AND SLITTING MACHINES, TURRET PUNCHES, LASER CUTTING MACHINES, PRESS BRAKES AND HYDRAULIC AND POWER PRESSES.

SHEET METAL TECHNICIAN MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY ESPECIALLY IN METAL MACHINING WORKS.

In particular the person will:

1. Apply safe work practice and adhere to safety rules and regulations.
2. Interpret drawing before performing works.
3. Carry out materials identification to avoid mistake.
4. Use and maintain marking, measuring tools and gauges.
5. Use and maintain hand tools, power and pneumatic tools.
6. Use and maintain machine and equipment properly with safe handling.
7. Perform bench fitting work.
8. Prepare sheet metal-ferrous and nonferrous as per job order.
9. Cut and form ferrous and non-ferrous metal as per job order.
10. Joint ferrous and non-ferrous materials as per job order.
11. Carry out finishing work on finished product.
12. Carry out preventive maintenance tasks and records preventive maintenance activities.
13. Train and develop other employees in performing preventive maintenance and routine equipment service activities.
14. Practice situational leadership, safety and environmental stewardship
15. Adhere the safety procedures while working.

LEVEL 3

FOUNDRY TECHNICIAN (PATTERN MAKING)

A FOUNDRY TECHNICIAN (PATTERN MAKING) IS DESIGNATED TO PLANS, LAYS OUT, AND CONSTRUCTS MASTER FULL-SCALE MODELS, FORMS, MOCKUPS, CHECK JIGS AND PLASTER PATTERNS FOR CASTING MASTER TOOLING USED IN MANUFACTURING.

A FOUNDRY TECHNICIAN (PATTERN MAKING) MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY ESPECIALLY IN METAL MACHINING WORKS.

In particular the person will:

1. Utilizing knowledge of patternmaking, metal forming, and foundry practices and procedures, using precision instruments, tools and equipment.
2. Studies engineering tool design data, loft information and blueprints to determine sequence of operations and to develop layout for constructing master model.
3. Lays out, locates, and aligns steel skeletons and master contour templates on surface table or other base structure to form model frame, using precision measuring instruments and devices, for example micrometers, calipers and transit.
4. Forms plaster over template frame and hand finishes plaster to peripheral dimensions of contour templates, using scrapers, fairing tools and other handtools.
5. Verifies finished dimensions of master model, using precision instruments.
6. Scribes butt, water, and station lines on master model to establish location points, reference lines and contours for subsequent pattern casting.
7. Casts plaster pattern (splash) from sections of master model, and recasts pattern to produce working patterns of contour templates, check templates and related tooling.
8. May also fabricate master patterns, jigs, templates, or mockups from materials other than plaster, for example wax, plastic and fiberglass.
9. May also cut out and fabricate flat contour templates from engineering or loft information.

LEVEL 3

FOUNDRY TECHNICIAN (MOULD & CORE MAKING)

A FOUNDRY TECHNICIAN (MOULD & CORE MAKING) IS DESIGNATED TO BLOCK AND CASE MAKER, BLOCKER, CASER CASTS PLASTER BLOCK MOLDS, CASE MOLDS AND WORKING MOLDS USED IN FORMING POTTERY WARE, USING MODELS, CLAY AND PLASTER:

A FOUNDRY TECHNICIAN (MOULD & CORE MAKING) MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY ESPECIALLY IN METAL MACHINING WORKS.

In particular the person will:

1. Places model in clay with upper half of model exposed.
2. Brushes soap solution on exposed half of model. Places wooden form around model or builds up wooden box sides.
3. Mixes plaster and pours it over exposed half of model to form one half of block mold.
4. Allows plaster to harden, removes wooden box sides and turns mold over, leaving model in plaster mold.
5. Removes clay, smooths surface of mold, using knife and scrapers and applies soap solution.
6. Replaces box sides around mold and pours in plaster to form other half of block mold.
7. Casts case mold in similar manner, using block mold as pattern.

LEVEL 3

FOUNDRY TECHNICIAN (MELTING)

A FOUNDRY TECHNICIAN (MELTING) IS DESIGNATED TO WEIGHS OUT SPECIFIED AMOUNTS OF METAL INGOTS AND SCRAP METAL AND CHARGES METAL INTO FURNACE BY HAND, USING HOIST, OR BY DIRECTING CRANE OPERATOR TO CHARGE FURNACE.

A FOUNDRY TECHNICIAN (MELTING) MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY ESPECIALLY IN METAL MACHINING WORKS.

In particular the person will:

1. Loads molten metal into furnace, using transfer ladle.
2. Turns valves to regulate injection of fuel and air into furnace or moves controls to regulate flow of electricity and water coolant through electrodes to heat furnace to specified temperature.
3. Observes color of metal and instruments, for example voltmeter, ammeter, wattmeter and pyrometer and adjusts controls to maintain specified temperature.
4. Sprinkles fluxing agent over surface of molten metal to bring impurities to surface, forming layer of slag.
5. Skims off slag, using strainer.
6. Removes crucible containing molten metal from furnace, using hoist, moves levers to tilt crucible or open crucible door or breaks clay plug to pour metal into ladle for transportation to molds.
7. Removes test sample of molten metal from crucible, using hand ladle and pours it into mold. Records data from each melt on form.
8. Positions new electrodes over worn electrodes in electric-arc furnace, using overhead crane and screws electrodes together, using chain wrench.
9. May also transport crucible or ladle to pouring station and pour metal into molds.

LEVEL 3

FOUNDRY TECHNICIAN (DIE CASTING)

A FOUNDRY TECHNICIAN (DIE CASTING) IS DESIGNATED TO LAYS OUT, MACHINES, FITS, ASSEMBLES AND FINISHES METAL PARTS TO MAKE AND REPAIR DIES FOR DIE CASTING OF METAL PRODUCTS

A FOUNDRY TECHNICIAN (DIE CASTING) MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY ESPECIALLY IN METAL MACHINING WORKS.

In particular the person will:

1. Analyzing specifications, and applying knowledge of die design and construction.
2. Studies blueprints of product and die and computes specifications.
3. Applying knowledge of shop mathematics and metal die casting or plastic or glass molding processes and machinery.
4. Plans sequence of operations, visualizing shape of die in reverse of product.
5. Measures, marks, and scribes metal stock to lay out for machining.
6. Gives machining specifications to tool-machine set-up operators (machine shop).
7. Sets up and operates machines, for example horizontal boring mill, engine lathe, profile milling machine and pantograph machine to machine outer dimensions and contoured cavity of die or mold [tool-machine set-up operator (machine shop), pantograph-machine set-up operator (machine shop)].
8. Grinds, files and sands parts, using files, emery cloth and powered grinders, to fit parts for assembly and to smooth and finish cavity.
9. Assembles die using handtools.
10. Verifies dimensions, using calipers, planer gauges and dial indicators.
11. May also repair molds and be designated mold repairer, die-casting and plastic molding (machine shop).

LEVEL 3

MACHINIST (LATHE TURNING OPERATION)

A MACHINIST (LATHE TURNING OPERATION) IS DESIGNATED TO USE MACHINE TOOLS, SUCH AS LATHES AND MACHINING CENTERS, TO PRODUCE PRECISED METAL PARTS. ALTHOUGH THEY MAY PRODUCE LARGE QUANTITIES OF ONE PART, PRECISED MACHINIST OFTEN PRODUCE SMALL BATCHES OR ONE OF KIND ITEMS.

A MACHINIST (LATHE TURNING OPERATION) MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Interpret complex assembly drawing.
2. Carry out maintenance as schedule.
3. Develop maintenance prevention (to eliminate/avoid maintenance problem.
4. Carry out tool post grinding process on lathe machine (external and internal).
5. Carry out worm gear cutting.
6. Carry out internal & external lead screw cutting.
7. Carry out helical groove cutting.
8. Cut work piece with CNC lathe machine.
9. Resolve metrological differences between in process monitor and Quality Assurance.
10. Prepare inspection report.
11. Check measurement on complex workpiece (CMM).
12. Prepare job planning & job process.
13. Prepare time schedule for job in machining against machine and operator available.
14. Review material & tooling requirement.
15. Confirm machines/equipment is always maintained.
16. Recognise workers contribution and achievement.
17. Maintain good communication between management & workers.

LEVEL 3

MACHINIST (MILLING OPERATION)

A MACHINIST (MILLING OPERATION) IS DESIGNATED TO USE MACHINE TOOLS, SUCH AS MILLING MACHINES AND MACHINING CENTERS, TO PRODUCE PRECISED METAL PARTS. ALTHOUGH THEY MAY PRODUCE LARGE QUANTITIES OF ONE PART, PRECISED MACHINIST OFTEN PRODUCE SMALL BATCHES OR ONE OF KIND ITEMS.

A MACHINIST (MILLING OPERATION) MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Prepare job planning & job process.
2. Prepare time schedule for job in machining against machine and operator available.
3. Review material & tooling requirement.
4. Cut worm wheel on milling machine.
5. Carry out cam milling.
6. Carry out spiral flute cutting.
7. Carry out maintenance as schedule.
8. Develop maintenance prevention (to eliminate/avoid maintenance problem).
9. Confirm machines/equipment is always maintained.
10. Recognise workers contribution and achievement.
11. Maintain good communication between management & workers.

LEVEL 3

MACHINIST (GRINDING OPERATION)

A MACHINIST (GRINDING OPERATION) IS DESIGNATED TO USE MACHINE TOOLS, SUCH AS GRINDING MACHINES AND MACHINING CENTERS, TO PRODUCE PRECISED METAL PARTS. ALTHOUGH THEY MAY PRODUCE LARGE QUANTITIES OF ONE PART, PRECISED MACHINIST OFTEN PRODUCE SMALL BATCHES OR ONE OF KIND ITEMS.

A MACHINIST (GRINDING OPERATION) MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Prepare job planning & job process.
2. Prepare time schedule for job in machining against machine and operator available.
3. Review material & tooling requirement.
4. Resolve metrological differences between in process monitor and Quality Assurance gate.
5. Develop maintenance prevention (to eliminate/avoid maintenance problem).
6. Carry out maintenance as schedule.
7. Prepare inspection report.
8. Perform inspection to ensure machines/equipment is always maintained.
9. Recognise workers contribution and achievement.
10. Maintain good communication between management & workers.

LEVEL 3

COMPUTER NUMERICAL CONTROL (CNC) TECHNICIAN

A COMPUTER NUMERICAL CONTROL (CNC) TECHNICIAN IS DESIGNATED TO USE MACHINE TOOLS, SUCH AS LATHES, MILLING MACHINES AND MACHINING CENTERS, TO PRODUCE PRECISED METAL PARTS. ALTHOUGH THEY MAY PRODUCE LARGE QUANTITIES OF ONE PART, PRECISED MACHINIST OFTEN PRODUCE SMALL BATCHES OR ONE OF KIND ITEMS.

A COMPUTER NUMERICAL CONTROL (CNC) TECHNICIAN MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Conduct daily inspection on CNC grinding machine.
2. Prepare program for CNC grinding machine (dry run).
3. Set up work piece on CNC grinding machine.
4. Prepare grinding wheels.
5. Carry out CNC grinding operation.
6. Inspect product after machining.
7. Prepare machining program on CAD/CAM software.
8. Perform 2D and 3D - CNC -EDM wire cut operation.
9. Prepare machining process.
10. Prepare work schedule, time and cost estimation.
11. Review material and tooling requirement.
12. Monitor machining process.
13. Set target for completion and delivery.

LEVEL 3

SHEET METAL SENIOR TECHNICIAN

SHEET METAL SENIOR TECHNICIAN IS DESIGNATED TO CARRY OUT JOB ASSIGNED BY USING METAL-SHAPING AND SHEET-METAL WORKING MACHINE TOOLS SUCH AS SHEARING AND SLITTING MACHINES, TURRET PUNCHES, LASER CUTTING MACHINES, PRESS BRAKES AND HYDRAULIC AND POWER PRESSES.

SHEET METAL SENIOR TECHNICIAN MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY ESPECIALLY IN METAL MACHINING WORKS.

In particular the person will:

1. Carry out chemical test as per requirement in standard operation procedure.
2. Maintain proper record of instrument calibration for the company.
3. Carry out finishing work on finished product.
4. Check, inspect and test product/jobs/works/projects.
5. Troubleshoot and solve problem immediately to maintain process efficiency.
6. Oversee production in a fast paced environment.
7. Evaluate manufacturing processes and recommend plant layout changes for work flow, process methods and production equipment improvements.
8. Check all production orders are completed to schedule.
9. Train and ensure assigned employees are aware of and comply with company and government policies and procedures.
10. Communicate company objectives effectively to co-workers while always working towards the highest standards of safety, quality, efficiency and housekeeping.

11. Foster a team environment by promoting open channels of communication.
12. Cultivate a positive and innovative work environment.
13. Practice situational leadership, safety and environmental stewardship.
14. Design, monitor and maintain a safe working environment by ensuring all safety requirements and quality control standards are met.
15. Adhere to company policies, procedures and practices.

LEVEL 4

MOULD EXECUTIVE

A MOULD EXECUTIVE IS DESIGNATED TO SUPERVISE A GROUP OF SUPERVISORS OR WORKERS TO ENSURE MOULD AND MACHINERY ARE IN GOOD ORDER, TO ENSURE THE MACHINERY, MANPOWER AND MATERIAL ARE MEETING THE COMPANY CAPABILITIES & SUITABILITY REQUIREMENT AND ASSIST METAL FOUNDRY SENIOR EXECUTIVE IN ALL MACHINERY WORKS.

A MOULD EXECUTIVE MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Supervise a group of supervisors or workers to ensure mould and machinery are in good order.
2. Perform inspection to ensure the machinery, manpower and material are meeting the company capabilities and suitability requirement.
3. Prepare annual budget and monitor expenditure.
4. Prepare staff performance and development.
5. Prepare necessary report and improvement recommendations for management review.
6. Train and develop other employees in performing preventive maintenance and routine equipment service activities.
7. Practice situational leadership, safety and environmental stewardship.
8. Lead equipment or system problem identification and recommend solutions.
9. Prepare necessary report and improvement recommendations for management review.
10. Manage preventive maintenance tasks and record preventive maintenance activities.

LEVEL 4

ASSISTANT MANUFACTURING ENGINEER (CAD/CAM/CAE)

AN ASSISTANT MANUFACTURING ENGINEER (CAD/CAM/CAE) IS DESIGNATED TO DEVELOP DESIGN AND WORKSHOP DRAWINGS ON CAD FOR, EXAMPLE, MECHANICAL/ELECTRICAL SERVICES.

AN ASSISTANT MANUFACTURING ENGINEER (CAD/CAM/CAE) MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Engage in R&D to maximize the usability of products.
2. Undertake the task to deliver multiple product solutions.
3. Prepare accurate and timely detailed 3D models and 2D drawings of components of product.
4. Maintain the CAD/CAM/CAE system and followed up the up-to-date details and specifications of operating manuals.
5. Develop creative high-quality solutions for cavity/surface modeling, path generation and verification application software and associated tools.
6. Develop routines and utility programs.
7. Work on problems of moderate scope where analysis of data requires a review of a variety of factors.

LEVEL 5

FOUNDRY MANAGER

A FOUNDRY MANAGER IS DESIGNATED TO PREPARE NECESSARY REPORT AND TO PROVIDE IMPROVEMENT RECOMMENDATIONS FOR MANAGEMENT REVIEW, PREPARE ANNUAL BUDGET AND MONITOR EXPENDITURE IN ALL MACHINERY WORKS.

A FOUNDRY MANAGER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Prepare necessary report and improvement recommendations for management review.
2. Prepare annual budget and monitor expenditure.
3. Prepare staff performance and development.
4. Supervise a group of supervisors or workers to ensure mould and machinery are in good order.
5. Perform inspection to ensure machinery, manpower and material are meeting the company capabilities and suitability requirement.
6. Develop operating procedures for plant equipment to ensure consistent and safe operation.
7. Manage and ensure that appropriate safety procedures are followed.
8. Manage and record preventive maintenance tasks and activities
9. Practice situational leadership, safety and environmental stewardship.

LEVEL 5

MANUFACTURING ENGINEER (CAD/CAM/CAE)

A MANUFACTURING ENGINEER (CAD/CAM/CAE) IS DESIGNATED TO PLAN TECHNICAL SOLUTION USING CAD DEVELOPMENT SOFTWARE.

A MANUFACTURING ENGINEER (CAD/CAM/CAE) MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Asses and review simulation problems and methodologies.
2. Define and select new approaches in implementation of CAD/CAM/CAE software in the design flow.
3. Develop creative high-quality solutions for cavity/surface modeling, path generation and verification application software and associated tools.
4. Develop routines and utility programs.
5. Work on problems of moderate scope where analysis of data requires a review of a variety of factors.
6. Exercise judgment within defined procedures and practices to determine appropriate action.
7. Receive general instructions on routine work, detailed instructions on new projects or assignments.
8. Provide specifications, design and implementation of new software components or improvements to existing ones.
9. Perform module level testing of implemented software components.

JOB TITLES

(GENERAL INDUSTRIAL M&E – WATER TREATMENT AND SEWERAGE MACHINERY)

LEVEL 1

Not Available

LEVEL 2

WATER TREATMENT PLANT OPERATOR

SEWERAGE PLANT OPERATOR

LEVEL 3

WATER TREATMENT PLANT SUPERVISOR

SEWERAGE PLANT SUPERVISOR

LEVEL 4

Not Available

LEVEL 5

Not Available

LEVEL 6

Not Available

LEVEL 7

Not Available

LEVEL 8

Not Available

LEVEL 2

WATER TREATMENT PLANT OPERATOR

A WATER TREATMENT PLANT OPERATOR IS DESIGNATED TO CHECK AND ENSURE THE EQUIPMENT ARE SERVICEABLE AND FIT FOR OPERATION, TO ATTEND ALL RELATED TRAINING REQUIRED, TO FOLLOW ALL STANDARD OPERATING PROCEDURE, TO REPORT ANY ABNORMALITY TO THE PLANT SUPERVISOR, TO REPORT ALL INCIDENT AND ACCIDENT TO PLANT SUPERVISOR AND ASSIST WATER TREATMENT PLANT SUPERVISOR IN ALL MACHINERY WORKS.

A WATER TREATMENT PLANT OPERATOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Check and ensure the equipment is serviceable and fit for operation.
2. Report any abnormality to the Plant Supervisor.
3. Report all incident and accident to Plant Supervisor.
4. Perform work base on work order.
5. Work under dredging instruction or supervision.
6. Participate in operator training and continuing training.
7. Perform routine maintenance functions.
8. Perform general housekeeping and continuous improvement of the facility appearance.

* Pre-requisite:
  Water Treatment Plant Operator is to be qualified from general worker who has 2 years working experience in area of water treatment plant.

LEVEL 2

SEWERAGE PLANT OPERATOR

A SEWERAGE PLANT OPERATOR IS DESIGNATED TO REPORT DIRECT TO PLANT SUPERVISOR, TO CHECK AND ENSURE THE EQUIPMENT ARE SERVICEABLE AND FIT FOR OPERATION, TO ATTEND ALL RELATED TRAINING REQUIRED, TO FOLLOW ALL STANDARD OPERATING PROCEDURE, TO REPORT ANY ABNORMALITY TO THE PLANT SUPERVISOR AND ASSIST SEWERAGE PLANT SUPERVISOR IN ALL MACHINERY WORKS.

A SEWERAGE PLANT OPERATOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Prepare report direct to Plant Supervisor.
2. Perform checking to ensure the equipment is serviceable and fit for operation.
3. Participate all related training required.
4. Report any abnormality to the Plant Supervisor.
5. Report all incident and accident to Plant Supervisor.
6. Perform work base on work order and routine maintenance functions.
7. Work under dredging instruction or supervision.
8. Perform general housekeeping and continuous improvement of the facility appearance.

LEVEL 3

WATER TREATMENT PLANT SUPERVISOR

A WATER TREATMENT PLANT SUPERVISOR IS DESIGNATED TO SUPERVISE A GROUP OF PLANT OPERATOR TO ENSURE PLANT FACILITY AND MACHINERY ARE IN GOOD AND SAFE WORKING CONDITION, TO CONDUCT INVESTIGATION TO ALL INCIDENTS REPORTED BY PLANT OPERATOR, TO ENSURE THE WATER SUPPLY ACCORDING TO AUTHORITY REQUIREMENT IN ALL MACHINERY WORKS.

A WATER TREATMENT PLANT SUPERVISOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Supervise a group of Plant Operator to ensure plant facility and machinery is in good and safe working condition.
2. Perform inspection to ensure the equipment are serviceable and fit for operation.
3. Conduct investigation to all incident reported by Plant Operator.
4. Perform inspection to ensure the water supply according to authority requirement.
5. Check all maintenance report and record.
6. Oversee production in a fast paced environment.
7. Perform inspection to ensure the water supply according to authority requirement.
8. Design, monitor and maintain a safe working environment by ensuring all safety requirements and quality control standards are met.
9. Maintain staffing requirements
10. Train and ensure assigned employees are aware of and comply with company and government policies and procedures.
11. Monitor work progress to ensure all production orders are completed to schedule.

LEVEL 3

SEWERAGE PLANT SUPERVISOR

A SEWERAGE PLANT SUPERVISOR IS DESIGNATED TO REPORT DIRECT TO PLANT MANAGER, SUPERVISING A GROUP OF PLANT OPERATOR TO ENSURE PLANT FACILITY AND MACHINERY ARE IN GOOD AND SAFE WORKING CONDITION, TO ENSURE THE EQUIPMENT ARE SERVICEABLE AND FIT FOR OPERATION, SCHEDULE MANPOWER, TO CONDUCT INVESTIGATION TO ALL INCIDENT REPORTED BY PLANT OPERATOR, TO ENSURE THE WATER SUPPLY ACCORDING TO AUTHORITY REQUIREMENT IN ALL MACHINERY WORKS.

A SEWERAGE PLANT SUPERVISOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Prepare report direct to Plant Manager.
2. Supervise a group of Plant Operator to ensure plant facility and machinery is in good and safe working condition.
3. Perform inspection to ensure the equipment are serviceable and fit for operation.
4. Conduct investigation to all incident reported by Plant Operator.
5. Oversee production in a fast paced environment.
6. Perform inspection to ensure the water supply according to authority requirement.
7. Design, monitor and maintain a safe working environment by ensuring all safety requirements and quality control standards are met.
8. Maintain staffing requirements
9. Train and ensures assigned employees are aware of and comply with company and government policies and procedures.
10. Monitor work progress to ensure all production orders are completed to schedule.

JOB TITLES

(GENERAL INDUSTRIAL M&E – MATERIAL HANDLING)

LEVEL 1
Not Available

LEVEL 2
TERMINAL OPERATOR (FRONT END LOADER & REACH STACKER)

LEVEL 3
SENIOR HOIST CRANE OPERATOR
SENIOR STRADDLE CARRIER CRANE OPERATOR
SENIOR RUBBER TYRE GANTRY CRANE OPERATOR

LEVEL 4
Not Available

LEVEL 5
Not Available

LEVEL 6
Not Available

LEVEL 7
Not Available

LEVEL 8
Not Available

LEVEL 2

TERMINAL OPERATOR

A TERMINAL OPERATOR IS DESIGNATED TO REPORT DIRECT TO OPERATION MANAGER, TO ENSURE THE CRANE ARE SERVICEABLE AND FIT FOR OPERATION, TO ATTEND ALL RELATED TRAINING REQUIRED, TO FOLLOW ALL STANDARD OPERATING PROCEDURE, TO REPORT ALL INCIDENT AND ACCIDENT TO OPERATION MANAGER, TO ENSURE THE EQUIPMENT ACCORDING TO THE AUTHORITY REQUIREMENT AND ASSIST SENIOR HOIST CRANE IN ALL MACHINERY WORKS.

A TERMINAL OPERATOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Prepare report direct to Operation Manager.
2. Perform inspection to ensure the crane is serviceable and fit for operation.
3. Prepare report all incident and accident to Operation Manager.
4. Perform inspection to ensure the equipment according to the authority requirement.
5. Diagnose mechanical malfunction cause or failure of operational equipment.
6. Perform general housekeeping and continuous improvement of the facility appearance.
7. Operate, maintain, troubleshoot and repair mechanical equipment.

* Pre-requisite:
  Terminal Operator (Front End Loader & Reach Stacker) is to be qualified from general worker who has 2 years working experience in area of straddle carrier.

LEVEL 3

SENIOR HOIST CRANE OPERATOR

A SENIOR HOIST CRANE OPERATOR IS DESIGNATED TO REPORT DIRECT TO SENIOR MANAGER TO ENSURE THE CRANE ARE SERVICEABLE AND FIT FOR OPERATION, TO ATTEND ALL RELATED TRAINING REQUIRED, TO REPORT ALL INCIDENT AND ACCIDENT TO OPERATION MANAGER IN ALL MACHINERY WORKS.

A SENIOR HOIST CRANE OPERATOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Prepare report direct to Senior Manager.
2. Perform inspection to ensure the crane is serviceable and fit for operation.
3. Participate all related training required.
4. Prepare report all incident and accident to Operation Manager.
5. Perform inspection to ensure the equipment according to the authority requirement.
6. Generate work order and perform work base on work order.
7. Perform routine maintenance functions.
8. Check all maintenance report and record.
9. Work under crane instruction.
10. Supervise a group of serviceman to ensure boiler and machinery are in good order.
11. Prepare record of all work performed.
12. Perform general housekeeping and continuous improvement of the facility appearance.

LEVEL 3

SENIOR STRADDLE CARRIER CRANE OPERATOR

A SENIOR STRADDLE CARRIER CRANE OPERATOR IS DESIGNATED TO ENSURE THE STRADDLE CARRIER ARE SERVICEABLE AND FIT FOR OPERATION, TO REPORT ALL INCIDENT AND ACCIDENT TO OPERATION MANAGER, TO ENSURE THE EQUIPMENT ACCORDING TO THE AUTHORITY REQUIREMENT IN ALL MACHINERY WORKS.

A SENIOR STRADDLE CARRIER CRANE OPERATOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Perform inspection to ensure the straddle carriers are serviceable and fit for operation.
2. Participate all related training required.
3. Prepare report all incident and accident to Operation Manager.
4. Perform inspection to ensure the equipment according to the authority requirement.
5. Generate work order and perform work base on work order.
6. Perform routine maintenance functions.
7. Check all maintenance report and record.
8. Work under crane instruction.
9. Supervise a group of serviceman to ensure boiler and machinery are in good order.
10. Prepare record of all work performed.
11. Perform general housekeeping and continuous improvement of the facility appearance.

LEVEL 3

SENIOR RUBBER TYRE GANTRY CRANE OPERATOR

A SENIOR RUBBER TYRE GANTRY CRANE OPERATOR IS DESIGNATED TO REPORT DIRECT TO OPERATION MANAGER, TO ENSURE THE RTG ARE SERVICEABLE AND FIT FOR OPERATION, TO ATTEND ALL RELATED TRAINING REQUIRED, TO FOLLOW ALL STANDARD OPERATING PROCEDURE, TO REPORT ALL INCIDENT AND ACCIDENT TO OPERATION MANAGER IN ALL MACHINERY WORKS.

A SENIOR RUBBER TYRE GANTRY CRANE OPERATOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Prepare report direct to Operation Manager.
2. Perform inspection to ensure the RTG are serviceable and fit for operation.
3. Prepare record of all work performed.
4. Prepare report all incident and accident to Operation Manager.
5. Supervise a group of serviceman to ensure boiler and machinery are in good order.
6. Generate work order and perform work base on work order.
7. Perform routine maintenance functions.
8. Check all maintenance report and record.
9. Work under crane instruction.
10. Supervise a group of serviceman to ensure boiler and machinery are in good order.
11. Prepare record of all work performed.
12. Perform general housekeeping and continuous improvement of the facility appearance.

JOB TITLES

(GENERAL INDUSTRIAL M&E – PRESSURE VESSEL)

LEVEL 1
Not Available

LEVEL 2
WELDER
FITTERS

LEVEL 3
SENIOR WELDER
SENIOR FITTERS

LEVEL 4
PRESSURE VESSEL JUNIOR INSPECTOR
PRESSURE VESSEL ASSISTANT ENGINEER
PRESSURE VESSEL ASSISTANT DESIGN ENGINEER

LEVEL 5
PRESSURE VESSEL INSPECTOR
PRESSURE VESSEL ENGINEER
PRESSURE VESSEL DESIGN ENGINEER

LEVEL 6
Not Available

LEVEL 7
Not Available

LEVEL 8
Not Available

LEVEL 2

WELDER

A WELDER IS DESIGNATED TO LAY OUT, FIT AND FABRICATE METAL COMPONENTS TO ASSEMBLE STRUCTURAL FORMS SUCH AS MACHINERY FRAMES, BRIDGE PARTS AND PRESSURE VESSELS USING KNOWLEDGE OF WELDING TECHNIQUES METALLURGY AND ENGINEERING REQUIREMENTS INCLUDES EXPERIMENTAL WELDERS WHO ANALYZE ENGINEERING DRAWINGS AND SPECIFICATIONS TO PLAN WELDING OPERATIONS WHERE PROCEDURAL INFORMATION IS UNAVAILABLE.

A WELDER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Lay out, positions, and secures parts and assemblies according to specifications, using straightedge, combination square, calipers and ruler.
2. Tack-welds or welds components and assemblies, using electric, gas, arc, or other welding equipment.
3. Cut workpiece, using powered saws, hand shears or chipping knife.
4. Melt lead bar, wire or scrap to add lead to joint or to extrude melted scrap into reusable form.
5. Install or repairs equipment, such as lead pipes, valves, floors and tank linings.
6. Observe tests on welded surfaces, such as hydrostatic, x-ray and dimension tolerance to evaluate weld quality and conformance to specifications.
7. Inspect grooves, angles, or gap allowances, using micrometer, caliper and precision measuring instruments.
8. Perform other duties as may be given by superior.

* Pre-requisite

  Welders to be qualified according to pressure vessel code requirement e.g. Department of Occupational Safety and Health (DOSH) or American Society Of Mechanical Engineers (ASME) requirement.

LEVEL 2

FITTER

A FITTER IS DESIGNATED TO FIT AND ASSEMBLES PARTS AND SUBASSEMBLES TO BUILD MACHINERY AND EQUIPMENT.

A FITTER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Examine blueprint and specifications and plans building sequence.
2. Move machine parts into positions using hoist or other lifting equipments.
3. Carry out layout mounting holes and reference lines using transit, square, rule, tape centre punch and scriber.
4. Carry out drill, taps and ream holes using drill press or portable drill.
5. Carry out files, grinds, laps or scrapes parts to remove high spots and ensure proper fits.
6. Carry out bolts, screws, rivets, dowels, tack-welds, shrink-fit or press fits part activities together to assemble machine or equipment, using hand tools power tools, welding equipment, acetylene torch and arbor press.
7. Carry out cuts, threads and install hydraulic, pneumatic, oil or water lines.
8. Verify alignment and clearances of parts, using gauge, micrometer, calipers, and other measuring instruments.
9. Operate unit to test performance and makes adjustments as required.
10. Perform other duties as assign by superior.

* Pre-requisite
  Fitters to be qualified according to pressure vessel code requirement e.g. Department of Occupational Safety and Health (DOSH) or American Society Of Mechanical Engineers (ASME) requirement

LEVEL 3

SENIOR WELDER

SENIOR WELDER IS DESIGNATED TO LAY OUT, FIT AND FABRICATE METAL COMPONENTS TO ASSEMBLE STRUCTURAL FORMS, SUCH AS MACHINERY FRAMES, BRIDGE PARTS, AND PRESSURE VESSELS, USING KNOWLEDGE OF WELDING TECHNIQUES, METALLURGY AND ENGINEERING REQUIREMENTS. INCLUDES EXPERIMENTAL WELDERS WHO ANALYZE ENGINEERING DRAWINGS AND SPECIFICATIONS TO PLAN WELDING OPERATIONS WHERE PROCEDURAL INFORMATION IS UNAVAILABLE.

A SENIOR WELDER- MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Lay out, positions and secures parts and assemblies according to specifications, using straightedge, combination square, calipers and ruler.
2. Tack-weld or weld components and assemblies, using electric, gas, arc, or other welding equipment.
3. Cut workpiece, using powered saws, hand shears or chipping knife.
4. Melt lead bar, wire or scrap to add lead to joint or to extrude melted scrap into reusable form.
5. Install or repairs equipment, such as lead pipes, valves, floors and tank linings.
6. Observe tests on welded surfaces, such as hydrostatic, x-ray and dimension tolerance to evaluate weld quality and conformance to specifications.
7. Inspect grooves, angles or gap allowances, using micrometer, caliper and precision measuring instruments.
8. Remove rough spots from workpiece, using portable grinder, hand file or scraper.
9. Weld components in flat, vertical or overhead positions.

10. Heat, form, and dress metal parts, using hand tools, torch or arc welding equipment.
11. Ignite torch and adjusts valves to obtain desired flame for cutting.
12. Adjust amperage and voltage to obtain desired arc stability for welding.
13. Analyze engineering drawings and specifications to plan layout, assembly and welding operations.
14. Develop templates and other work aids to hold and align parts.
15. Determine required equipment and welding method, applying knowledge of metallurgy, geometry and welding techniques.

* Note

Welders to be qualified according to pressure vessel code requirement e.g. Department of Occupational Safety and Health (DOSH) or American Society Of Mechanical Engineers (ASME) requirement

LEVEL 3

SENIOR FITTER

A SENIOR FITTER IS DESIGNATED TO TRAIN NEW FITTER AND FIT AND ASSEMBLES PARTS AND SUBASSEMBLES TO BUILD MACHINERY AND EQUIPMENT.

A SENIOR FITTER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Examine blueprint and specifications and plans building sequence.
2. Carry out drill, taps and ream holes using drill press or portable drill.
3. Carry out files, grinds, laps, or scrapes parts to remove high spots and ensure proper fits.
4. Carry out bolts, screws, rivets, dowels, tack-welds, shrink-fit or press fits part together to assemble machine or equipment, using hand tools power tools, welding equipment, acetylene torch and arbor press.
5. Carry out cuts, threads and install hydraulic, pneumatic, oil or water lines.
6. Verify alignment and clearances of parts, using gauge, micrometer, calipers and other measuring instruments.
7. Operate unit to test performance and makes adjustments as required.
8. Train or monitor fitter 1 and fitter 2.
9. Perform other duties as assign by superior.

LEVEL 4

PRESSURE VESSEL JUNIOR INSPECTOR

A PRESSURE VESSEL JUNIOR INSPECTOR IS DESIGNATED TO INSPECT PRESSURE VESSEL EQUIPMENT FOR CONFORMANCE WITH SAFETY LAWS AND STANDARDS REGULATING THEIR DESIGN, FABRICATION, INSTALLATION, REPAIR AND OPERATION.

A PRESSURE VESSEL JUNIOR INSPECTOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Verify that correct materials are utilized for all works.
2. Check that copies of applicable quality control (QC) plan and quality control (QC) procedures where necessary are available at the location of work.
3. Check that all the welding works carried out in the service contract are as per the approved procedure and plans.
4. Witness welder qualification test in association with the company representative and welding engineer.
5. Check and record welding parameters and verify compliance with approved Welding Procedure Specification (WPS).
6. Set up a numbering system for the welds, compile and maintain isometrics containing weld number and welders identification.
7. Monitor welder performance, receive and review none destructive testing NDT reports.
8. Prepare monthly reports of quality control (QC) activities.
9. Liaise with the work coordinator in case of non-conformances and ensure corrective actions are taken.
10. Verify calibration status of inspection, measuring and testing equipments used.

11. Review of approved welding procedure, Qualification records and Welding operators.
12. Liaise with the company representative for the conduct of day to day quality related activities of the service contract.
13. Check fulfillment of all inspection and test requirements at all the stages as per contract requirements.
14. Compile and review pertinent records of inspection and test for individual job orders.

LEVEL 4

PRESSURE VESSEL ASSISTANT ENGINEER

PRESSURE VESSEL ASSISTANT ENGINEER IS DESIGNATED TO ACCOUNTABLE FOR THE ADEQUACY OF THE ENGINEERING DRAWINGS AND SPECIFICATIONS FOR COMPLETED PROJECT AND COMPLIANCE WITH SCHEDULE AND BUDGET.

PRESSURE VESSEL ASSISTANT ENGINEER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Prepare vessel and tank calculations.
2. Interface with discipline counterparts, construction, vendors and clients.
3. Produce specifications and mechanical data sheets for vessels.
4. Incorporate design modifications.
5. Review specifications, evaluations and supplier documents for process & utility pressure vessel packages.
6. Prepare bid analyses and technical recommendations for purchases.
7. Develop and maintaining equipment lists.
8. Perform equipment inspections and testing.
9. Perform in installation and startup support as required.
10. Interpret and understand the entire Code of Conduct and complying with its requirements.
11. Perform other duties as assigned by superior.

LEVEL 4

PRESSURE VESSEL ASSISTANT DESIGN ENGINEER

A PRESSURE VESSEL ASSISTANT DESIGN ENGINEER IS DESIGNATED TO DESIGN PRESSURE VESSELS PER THE LATEST APPLICABLE DOMESTIC OR FOREIGN CODES AND OTHER STANDARDS AS REQUIRED. PRESSURE VESSEL DESIGN CODES & STANDARDS MAY VARY BETWEEN AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME), PRESSURE EQUIPMENT DIRECTIVE (PED), TRANSPORTABLE PRESSURE EQUIPMENT DIRECTIVE (TPED), CANADIAN REGISTRATION NUMBER (CRN) AND INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO).

A PRESSURE VESSEL ASSISTANT DESIGN ENGINEER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Apply an extensive and diversified knowledge of engineering principles and practices within the area of specialization of Pressure Vessels.
2. Make decisions independently on engineering problems and methods and represents the department in conferences, answers questions and coordinates work.
3. Demonstrate interpolative thinking, utilizes advanced techniques, modifications or extensions to practices.
4. Apply standard engineering techniques and analysis for reactors, towers, drums, tanks, and various pressure vessel accessories including supports, ladders, platforms, internals, pipe supports and pipe guides.
5. Provide information and coordinate projects from the proposal to construction phase.
6. Reviewing technical submittals including design drawings, manufacturing procedures, quality assurance plans and welding, testing and coating procedures.

7. Perform inspections of various manufactured items including large diameter pipe, valves, pumps, pressure vessels and other equipment, structural and miscellaneous weldments to determine compliance with project requirements.
8. Interprets design drawings and plans, keep accurate records of work performed
9. Perform difficult calculations. Interprets data and evolves methods for presentation.
10. Perform quality assurance, destructive and non-destructive testing of fabricated items per the customer's requirements.
11. Perform difficult field investigations and materials inspections.
12. Prepare or assists in preparing written reports on above activities.
13. Performs other related work as assigned.

LEVEL 5

PRESSURE VESSEL INSPECTOR

A PRESSURE VESSEL INSPECTOR IS DESIGNATED TO INSPECT PRESSURE VESSEL EQUIPMENT FOR CONFORMANCE WITH SAFETY LAWS AND STANDARDS REGULATING THEIR DESIGN, FABRICATION, INSTALLATION, REPAIR AND OPERATION.

A PRESSURE VESSEL INSPECTOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Familiarize with pressure vessel code standard.
2. Inspect drawings, designs and specifications for piping, boilers and other vessels.
3. Perform standard tests to verify condition of equipment and calibration of meters and gauges, using test equipment and hand tools.
4. Inspect gas main to determine that rate of flow, pressure, location, construction or installation conforms to standards.
5. Evaluate factors, such as materials used, safety devices, regulators, construction quality, riveting, welding, pitting, corrosion, cracking and safety valve operation.
6. Calculate allowable limits of pressure, strength and stresses.
7. Examine permits and inspection records to determine that inspection schedule and remedial actions conform to procedures and regulations.
8. Keep records and prepares reports of inspections and investigations for administrative or legal authorities.
9. Investigate accidents to determine causes and to develop methods of preventing recurrences.
10. Confer with engineers, manufacturers, contractors, owners, and operators concerning problems in construction, operation and repair.
11. Witness acceptance and installation tests.
12. Recommend or orders actions to correct violations of legal requirements or to eliminate unsafe conditions.

LEVEL 5

PRESSURE VESSEL ENGINEER

A PRESSURE VESSEL ENGINEER IS DESIGNATED TO APPLY EXTENSIVE AND DIVERSIFIED KNOWLEDGE OF ENGINEERING PRINCIPLES AND PRACTICES WITHIN THE AREA OF PRESSURE VESSELS AND TANKAGE WITHIN MECHANICAL ENGINEERING IN ASSIGNMENTS AND RELATED WORK.AND FAMILIAR WITH RELATED INDUSTRIAL CODES INCLUDING AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) BOILER AND PRESSURE VESSEL (B&PV), AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO), OCCUPATIONAL SAFETY & HEALTH ACT (OSHA) AND BUILDING CODES RELATING TO EQUIPMENT MECHANICAL DESIGN

A PRESSURE VESSEL ENGINEER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Prepare vessel and tank calculations.
2. Interface with discipline counterparts, construction, vendors and clients.
3. Produce specifications and mechanical data sheets for vessels.
4. Incorporate design modifications.
5. Review specifications, evaluations and supplier documents for process & utility pressure vessel packages.
6. Prepare bid analyses and technical recommendations for purchases.
7. Develop and maintain equipment lists.
8. Apply extensive and diversified knowledge of engineering principles and practices within the area of Pressure Vessels and tankage within Mechanical Engineering in assignments and related work.
9. Make decisions independently on engineering problems and methods.
10. Demonstrate interpolative thinking, utilizes advanced techniques, modifications or extensions to practices.

11. Perform as group leader on project or departmental task assignments.
12. Support projects' design and procurement efforts for mechanical equipment.
13. Perform and check routine related engineering calculations and designs.
14. Perform squad checks of suppliers' drawings and data.
15. Supervise various activities in the mechanical design of a project consisting of several complex process units.
16. Perform provision of comprehensive engineering and design services by establishing the design criteria and implementing the preparation of specification.
17. Perform calculations, drawings and other project documentation.
18. Resource planning and allocation for project activities.
19. Obtain, interpret and execute client expectations for project success.

LEVEL 5

PRESSURE VESSEL DESIGN ENGINEER

A PRESSURE VESSEL DESIGN ENGINEER IS DESIGNATED TO DESIGN PRESSURE VESSELS PER THE LATEST APPLICABLE DOMESTIC OR FOREIGN CODES AND OTHER STANDARDS AS REQUIRED. PRESSURE VESSEL DESIGN CODES & STANDARDS MAY VARY BETWEEN AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME), PRESSURE EQUIPMENT DIRECTIVE (PED), TRANSPORTABLE PRESSURE EQUIPMENT DIRECTIVE (TPED), CANADIAN REGISTRATION NUMBER (CRN) AND INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO).

A PRESSURE VESSEL DESIGN ENGINEER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Examine pressure vessel designs are to the latest applicable domestic or foreign codes & standards.
2. Review code for design & manufacturing changes and apply as necessary.
3. Prepare submittals of pressure vessel designs for miscellaneous and customer approvals.
4. Develop technical files and maintain design documentation as required.
5. Prepare accurate and detailed quotations for new pressure vessel designs.
6. Develop new pressure vessel designs or with changes to existing designs.
7. Create pressure vessel design calculations using code software program.
8. Perform in manufacturing and quality control with production issues as required.

9. Participate with new product introductions and cost reduction initiatives.
10. Maintain controlled documents and represent the pressure vessel design area during facility audits.
11. Review pressure vessel design drawing packages as prepared by CAD operators.
12. Create pressure vessel design drawing packages using CAD software as required.

JOB TITLES

(GENERAL INDUSTRIAL M&E – ELEVATOR)

LEVEL 1
ELEVATOR REPAIRER HELPER
ELEVATOR INSTALLATION HELPER

LEVEL 2
ELEVATOR REPAIRER
ELEVATOR INSTALLER

LEVEL 3
ELEVATOR EXAMINER HELPER
ELEVATOR INSTALLATION HELPER

LEVEL 4
Not Available

LEVEL 5
Not Available

LEVEL 6
Not Available

LEVEL 7
Not Available

LEVEL 8
Not Available

LEVEL 1

ELEVATOR REPAIRER HELPER

AN ELEVATOR REPAIRER HELPER IS DESIGNATED TO PERFORM SERVICE AND REPAIR WORKS OF FREIGHT OR PASSENGER ELEVATORS.

AN ELEVATOR REPAIRER HELPER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Move and raise elevator components, using hoists, dollies and rollers.
2. Carry out assembly of elevator components, using mechanic's hand tools.
3. Carry out disassembly of elevator components, using mechanic's hand tools.
4. Clean equipment, using scrapers and cleaning compound and lubricates equipment with grease guns.
5. Perform other duties as assign by superior.

LEVEL 1

ELEVATOR INSTALLATION HELPER

AN ELEVATOR INSTALLATION HELPER IS DESIGNATED TO INSTALL FREIGHT AND PASSENGER ELEVATORS AND ASSIST ELEVATOR CONSTRUCTOR (CONSTRUCTION INDUSTRY).

AN ELEVATOR INSTALLATION HELPER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Raise and move heavy machinery and equipment, using hoists, dollies, rollers, wire rope and cable slings.
2. Hold material in position to assist in installing rails and supporting framework.
3. Drill holes in concrete or steel, using portable electric drill.
4. Assemble and bolt rails, elevator motor, car and control panels preparatory to installation.
5. Perform other duties as assign by superior.

LEVEL 2

ELEVATOR REPAIRER

AN ELEVATOR REPAIRER IS DESIGNATED TO REPAIR AND MAINTAIN ELEVATORS, ESCALATORS, AND DUMB-WAITERS TO MEET SAFETY REGULATIONS AND BUILDING CODES, USING HANDTOOLS, POWER TOOLS, TEST LAMPS, AMMETERS, VOLTMETERS AND OTHER TESTING DEVICES.

AN ELEVATOR REPAIRER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Locate and determine causes of trouble in brakes, motors, switches and signal and control systems, using test lamps, ammeters, and voltmeters.
2. Disassemble defective units and repairs or replaces parts, for example locks gears, cables, electric wiring and faulty safety devices, using hand tools.
3. Install push-button controls and other devices to modernize elevators.
4. Lubricate bearings and other parts to minimize friction.
5. Perform other duties as assign by superior.

LEVEL 2

ELEVATOR INSTALLER

AN ELEVATOR INSTALLER (CONSTRUCTION INDUSTRY) IS DESIGNATED TO INSTALL FREIGHT AND PASSENGER ELEVATORS.

AN ELEVATOR INSTALLER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Assemble and install electric and hydraulic freight and passenger elevators, escalators, and dumbwaiters.
2. Determine layout and electrical connections from blueprints.
3. Study blueprints and lays out location of framework.
4. Counterbalance rails, motor pump, cylinder and plunger foundations.
5. Drill holes in concrete or structural steel members with portable electric drill.
6. Secure anchor bolts or welds brackets to support rails and framework and verifies alignment with plumb bob and level.
7. Cut prefabricated sections of framework, rails, and other elevator components to specified dimensions, using acetylene torch, power saw and disk grinder.
8. Install cables, counterweights, pumps, motor foundations, escalator drives, guide rails, elevator cars and control panels, using hand tools.
9. Connect electrical wiring to control panels and electric motors.
10. Install safety and control devices.
11. Position electric motor and equipment on top of elevator shaft, using hoists and cable slings.

LEVEL 3

ELEVATOR EXAMINER AND ADJUSTER

AN ELEVATOR EXAMINER AND ADJUSTER IS DESIGNATED TO INSPECT AND ADJUST INSTALLED FREIGHT AND PASSENGER ELEVATORS AND ESCALATORS TO MEET FACTORY SPECIFICATIONS AND SAFETY CODES, USING HAND TOOLS AND MEASURING INSTRUMENTS.

AN ELEVATOR CONSTRUCTOR SUPERVISOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Inspect door installations for plumbness, lap and working action.
2. Adjust mechanism of doors, using hand tools. Inspects car hoist way and mechanical installations for alignment and clearance.
3. Test power consumption and line voltage changes of motors and motor-generator sets under no-load and full-load conditions to detect overload factors, using tachometer, voltmeter and ammeter.
4. Adjust counterweights and regulates controls to compensate for power overload.
5. Inspect wiring connections and control panel hookups and adjusts switches to meet specifications for gap and timing.
6. Test and adjust safety controls, for example brakes and governors.
7. Turn valve or pushe switches to adjust pump pressures, fluid levels and power supply on hydraulic units of elevators.
8. Operate elevator to determine power demands at various car speeds.

LEVEL 3

ELEVATOR INSTALLATION SUPERVISOR

AN ELEVATOR INSTALLATION SUPERVISOR IS DESIGNATED TO SUPERVISE AND COORDINATE ACTIVITIES OF WORKERS ENGAGED IN INSTALLATION OF ELECTRIC AND HYDRAULIC FREIGHT AND PASSENGER ELEVATORS, ESCALATORS, AND DUMBWAITERS.

AN ELEVATOR INSTALLATION SUPERVISOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Determine schedules, sequences, and assignments for work activities, based on work priority, quantity of equipment and skill of personnel.
2. Patrol and monitor work areas and examine tools and equipment in order to detect unsafe conditions or violations of procedures or safety rules.
3. Monitor employees' work levels and review work performance.
4. Examine objects, systems, or facilities, and analyze information to determine needed installations, services, or repairs.

JOB TITLES

(General Industrial M&E – Air Cond Installer)

LEVEL 1
AIR CONDITIONING INSTALLER

LEVEL 2
AIR CONDITIONING TESTER

LEVEL 3
AIR CONDITIONING INSTALLER SUPERVISOR

LEVEL 4
Not Available

LEVEL 5
Not Available

LEVEL 6
Not Available

LEVEL 7
Not Available

LEVEL 8
Not Available

LEVEL 1

AIR CONDITIONING INSTALLER

AN AIR CONDITIONING INSTALLER IS DESIGNATED TO FABRICATES AND ASSEMBLES COMPONENTS OF AIR CONDITIONING SYSTEMS FOR ENVIRONMENTAL TEST EQUIPMENT ACCORDING TO BLUEPRINTS OR SCHEMATIC DRAWINGS AND KNOWLEDGE OF AIR CONDITIONING SYSTEMS.

AN AIR CONDITIONING INSTALLER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Use handtools, powered tools and welding equipment.
2. Reads blueprints or schematic drawings to determine location, size, capacity, and type of components, for example compressor, condenser, expansion tank, valves, and tubing or piping needed to build Air Conditioning system.
3. Mounts compressor, condenser, and other components in specified locations on frame, using handtools and arc or acetylene welding equipment.
4. Cuts, bends, and brazes specified tubing to inlets and outlets of components to form liquid and suction lines of Air Conditioning system, using knowledge of metal properties.
5. Installs expansion and control valves, using acetylene torch and wrenches.
6. Adjusts valves according to specifications.
7. Remove air from system and charges system with specified amount and type of refrigerant.
8. Tests lines, components, and connections for leaks with leak detector which indicates presence of refrigerant.
9. Attaches thermocouples to various points of Air Conditioning system and test-operates equipment to evaluate functioning and cooling capacity of system.

10. Records pressure and temperature readings from gauges and temperature potentiometer during test run.
11. Compares reading with specifications to evaluate performance of system, and adjusts or replaces parts as indicated.
12. Fabricate and assemble structural portions of test equipment.
13. Assemble and mount electrical wiring circuits, controls, and recording devices. May also fabricate and assemble cascade and multiple stage Air Conditioning systems.

LEVEL 2

AIR CONDITIONING TESTER

AN AIR CONDITIONING TESTER IS DESIGNATED TO TESTS EFFICIENCY OF HEATING AND AIR-CONDITIONING EQUIPMENT UNDER SIMULATED OPERATING CONDITIONS.

AN AIR CONDITIONING TESTER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Connects heating and air-conditioning equipment to facilities, for example heating units, waterlines, and spray devices to.
2. Set up controlled temperature and moisture conditions.
3. Constructs cardboard air ducts and other accessories for use in testing equipment.
4. Couples gauges and instruments to system and starts equipment.
5. Observes and records readings of instruments, for example thermometers, psychrometers, thermocouples, air flowmeters, voltmeters, ammeters, and pressure and draft gauges.
6. Observes units to detect malfunction and ensure that cooling is taking place.
7. Connects unit to electrical outlet and starts compressor.
8. Tests compressors on non-functioning units for specified wattage, using watt-meter.
9. Informs supervisor of unusual noise and instrument readings during operation of equipment.
10. Plot instrument reading data.

LEVEL 3

AIR CONDITIONING INSTALLER SUPERVISOR

AN AIR CONDITIONING INSTALLER SUPERVISOR IS DESIGNATED TO SUPERVISE ACTIVITIES OF WORKERS ENGAGED IN FABRICATING, INSTALLING AND REPAIRING AIR-CONDITIONING SYSTEMS IN RESIDENTIAL AND COMMERCIAL BUILDINGS.

AN AIR CONDITIONING INSTALLER SUPERVISOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Inspect and measures building to determine airflow requirements.
2. Plan and draws layout and dimensions of ductwork.
3. Apply knowledge of sheet metal fabrication and air-conditioning system design, using pencil and ruler, and following specifications from air-conditioning equipment manufacturers and customer.
4. Obtain price quotations on materials and purchases materials, for example sheet metal, compressors and fans from suppliers.
5. Test equipment to verify that equipment is functioning.
6. Schedule air-conditioning installation assignments.
7. Examine installed air-conditioning systems to verify that system is functioning, using test instruments.
8. Compile labor and material cost figures and supporting media for billing purposes.
9. Attend classes and seminars on air-conditioning components and system design to update skills.
10. Instruct workers in sheet metal fabrication in shop.
11. Supervise sheet metal fabrication in shop and resolve problems to maintain production schedule.
12. Perform other duties as assign by superior.

JOB TITLES

(MANUFACTURING – R&D, DESIGNING, FABRICATION, PRODUCTION, TESTING, LOGISTIC)

LEVEL 1

DRAUGHTSMAN
FABRICATION OPERATOR
PRODUCTION OPERATOR
LABORATORY ASSISTANT
LOGISTIC OPERATOR

LEVEL 2

SENIOR DRAUGHTSMAN
INDUSTRIAL PRODUCT DESIGN TECHNICIAN
FABRICATION TECHNICIAN
PRODUCTION SENIOR OPERATOR
LABORATORY TECHNICIAN
LOGISTIC SENIOR OPERATOR

LEVEL 3

ASSISTANT RESEARCHER
ASSISTANT DESIGNER
INDUSTRIAL PRODUCT DESIGN TECHNICAL ASSISTANT
FABRICATION SUPERVISOR
PRODUCTION SUPERVISOR
LABORATORY SENIOR TECHNICIAN
LOGISTIC SUPERVISOR

LEVEL 4

RESEARCHER
DESIGNER
FABRICATION EXECUTIVE
PRODUCTION EXECUTIVE
ANALYST
LOGISTIC EXECUTIVE

LEVEL 5

R&D AND DESIGN MANAGER
FABRICATION MANAGER
PRODUCTION MANAGER
QUALITY MANAGER
LOGISTIC MANAGER

LEVEL 6

PLANT SENIOR MANAGER

LEVEL 7

Not Available

LEVEL 8

Not Available

LEVEL 1

DRAUGHTSMAN

A DRAUGHTSMAN IS DESIGNATED TO PREPARE DRAWINGS OF INDUSTRIAL MACHINE PART, ENGINES, TOOLS AND OTHER MACHINERY EQUIPMENTS.

A DRAUGHTSMAN MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Study preliminary sketches.
2. Select scales for drawing and make any changes in consultation with designers.
3. Read catalogue and publication for suitable and materials.
4. Complete design drawing.
5. Prepare working drawing showing methods of manufacturing, joining and fastening, utilizing knowledge of machine shop practices.
6. Prepare bills of materials, estimate of cost and charts of statistical data.
7. Prepare field trips to obtain measurement, restriction, pertinent codes and applicable by laws.
8. Perform other duties as assign by superior.

LEVEL 1

FABRICATION OPERATOR

A FABRICATION OPERATOR IS DESIGNATED TO PERFORM ONE OR A SERIES OF REPETITIVE OPERATION USING ONE OR MORE PREVIOUSLY SET UP MACHINE OR EQUIPMENT.

A FABRICATION OPERATOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Position and secure work piece on machine or equipments.
2. Start machines and engages automotive operation.
3. Adjust the controls to achieve the designed dimension.
4. Verify dimension after operation for conformance to specifications, using measuring instruments.
5. Replace work out tools according to designated tool life.
6. Remove the completed work piece from machine or equipment and repeat the process with a new work piece.
7. Perform other duties as assign by superior.

LEVEL 1

PRODUCTION OPERATOR

A PRODUCTION OPERATOR IS DESIGNATED TO PERFORM ONE OR SERIES OF REPETITIVE OPERATIONS USING ONE OR MORE PREVIOUSLY SET UP PROCEDURES.

A PRODUCTION OPERATOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Operate machines such as lathe, milling, drilling, broaching, grinding, horning or metal sawing machine according to specifications.
2. Position and secures work piece in chuck or holding fixtures.
3. Start machines and engages automotive operation.
4. Remove completed work pieces from chuck or holding fixtures and repeat the process with a new work pieces.
5. Adjust the controls to achieve the desired cutting dimensions.
6. Verify dimensions after operation for conformance to specifications, using measuring instruments.
7. Replace worn out tools according to designated tool life.
8. Train or monitor production junior operators in doing their job.
9. Perform other duties as assign by superior.

LEVEL 1

LABORATORY ASSISTANT

A LABORATORY ASSISTANT IS DESIGNATED TO CARRY OUT SAMPLE PREPARATION JOB AS DIRECTED BY LAB TECHNICIAN

A LABORATORY ASSISTANT MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Perform the cutting, sectioning, grinding, polishing, and other related work to prepare the sample for testing.
2. Check the testing facilities in good working condition.
3. Verify the sample storage.
4. Record all job done in a log book.
5. Clean and tide the laboratory.
6. Perform other duties as assign by superior.

LEVEL 1

LOGISTIC OPERATOR

A LOGISTIC OPERATOR IS DESIGNATED TO PERFORM LOGISTIC/SHIPMENT AND STOCK CONTROL AND TO ASSIST SENIOR LOGISTIC OPERATOR.

A LOGISTIC OPERATOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY SUCH AS WAREHOUSE AREA.

In particular the person will:

1. Coordinate with related department, suppliers, customers and shipping forwarders for smooth operation flow.
2. Prepare and arrange commercial and shipping documents for import and export.
3. Liaise and deal with freight forwarders, transporter, customs, MITI, MIDA, & etc. to achieve efficient delivery process.
4. Handle import/export shipment, custom clearance and provide logistic support.
5. Carry out custom & shipping documentation, i.e. invoice Packing List, B/L, Insurance, CO. L/C
6. Prepare invoices, and prepare documents.
7. Handle Custom declaration and LMW reports.
8. Monitor stocks level in branch to ensure required buffer level is maintained.
9. Perform other duties as assign by superior.

LEVEL 2

SENIOR DRAUGHTMAN

A SENIOR DRAUGHTSMAN IS DESIGNATED TO PREPARE DRAWINGS OF INDUSTRIAL MACHINE PART, ENGINES, TOOLS AND OTHER MACHINERY EQUIPMENTS.

A SENIOR DRAUGHTSMAN MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Interpret preliminary sketches.
2. Select scales for drawing and make any changes in consultation with designers.
3. Interpret catalogue and publication for suitable and materials.
4. Complete design drawing.
5. Prepare working drawing showing methods of manufacturing, joining and fastening, utilizing knowledge of machine shop practices.
6. Prepare bills of materials, estimate of cost and charts of statistical data.
7. Prepare field trips to obtain measurement, restriction, pertinent codes and applicable by laws.
8. Perform other duties as assign by superior.

LEVEL 2

INDUSTRIAL PRODUCT DESIGN TECHNICIAN

AN INDUSTRIAL PRODUCT DESIGN TECHNICIAN IS DESIGNATED TO CARRY OUT OBJECT SKETCHES, IDEA GENERATION AND DESIGN DEVELOPMENT.

AN INDUSTRIAL PRODUCT DESIGN TECHNICIAN MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Enhance project proposal sketches.
2. Prepare, construct and refine physical mock-up.
3. Finalize design mock-up.
4. Carry out technical drawing construction and detail drawing.
5. Produce assembly drawing.
6. Construct 3d wire frame, 3d solid and 3d surface.
7. Prepare standard components.
8. Execute model making.
9. Prepare and carry out project presentation.

* Pre-requisite:
  Industrial Product Design Technician is to be qualified from general worker who has 2 years working experience in area of industrial product design.

LEVEL 2

FABRICATION TECHNICIAN

A FABRICATION TECHNICIAN IS DESIGNATED TO PROVIDE TRAINING TO NEW SENIOR FABRICATION OPERATOR OR FABRICATION OPERATOR.

A FABRICATION TECHNICIAN MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Monitor the daily performance of the subordinates to ensure target is achieved.
2. Establish daily target for operators.
3. Inform any information from the management to operators.
4. Verify the line areas are in proper order and inspection instrument are available.
5. Verify the appropriate equipment is available for operator to do their job such as glove, goggles, caps, aprons and ear plugs where applicable.
6. Perform other duties as assign by superior.

LEVEL 2

PRODUCTION SENIOR OPERATOR

A PRODUCTION SENIOR OPERATOR IS DESIGNATED TO MONITOR SERIES OF OPERATIONS USING ONE OR MORE PREVIOUSLY SET UP PROCEDURES.

A PRODUCTION SENIOR OPERATOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Provide training to new Junior Production Operator or Production Operator in doing his/her job.
2. Monitor the daily performance of the subordinates to ensure target is achieved.
3. Establish daily target for operators.
4. Convey any information from the management to operators.
5. Check and verify the line areas are in proper order and inspection instruments are available.
6. Verify the appropriate equipment are available for operators to do their jobs such as gloves, goggles, caps, aprons and ear plug where applicable.
7. Perform as a relief operator in cases where there is shortage of operators.
8. Report to superior on line performance on daily basis.
9. Perform other duties as assign by superior.

LEVEL 2

LABORATORY TECHNICIAN

A LABORATORY TECHNICIAN IS DESIGNATED TO CARRY OUT ANALYSIS ON SAMPLE RECEIVED BY THE LABORATORY.

A LABORATORY TECHNICIAN MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Conduct daily lab testing activities
2. Check and verify all lab facilities in good working condition.
3. Record all testing result in work sheet.
4. Carry out periodical report submission.
5. Perform calibration activities.
6. Prepare all testing method and SOP for equipment.
7. Perform other duties as assign by superior.

LEVEL 2

LOGISTIC SENIOR OPERATOR

A LOGISTIC SENIOR OPERATOR IS DESIGNATED TO PERFORM FOR LOGISTIC/SHIPMENT AND STOCK CONTROL.

A LOGISTIC SENIOR OPERATOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Provide training to new Logistic Operator in doing his/her job.
2. Monitor the daily performance of the subordinates to ensure target is achieved.
3. Establish daily target for operators.
4. Inform any information from the management to operators.
5. Check and verify the line areas are in proper order and inspection instruments are available.
6. Verify the appropriate equipment are available for operators to do their jobs such as gloves, goggles, caps, aprons and ear plug where applicable.
7. Perform as a relief operator in cases where there is shortage of operators.
8. Report to superior on line performance on daily basis.
9. Perform other duties as assign by superior.

LEVEL 3

ASSISTANT RESEARCHER

AN ASSISTANT RESEARCHER IS DESIGNATED TO ARRANGE SUPERVISE OR CONDUCT THE STUDY DESIGN DEVELOPMENT AND PROCESSES.

AN ASSISTANT RESEARCHER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Prepare designs and cost estimate.
2. Collect data and write report.
3. Evaluate installed plant, mechanical process and product to ensure compliance with specification and safety standard.
4. Recommend modification, repair and maintenance procedures.
5. Supervise and coordinate the work of designers and technician.
6. Collaborate with engineers in other disciplines.
7. Perform other duties as assign by superior.

* Pre-requisite:
  Minimum Qualification for L3 Assistant Researcher is diploma with 2 years working experience in R&D facilities.

LEVEL 3

ASSISTANT DESIGNER

AN ASSISTANT DESIGNER IS DESIGNATED TO ESTABLISH ENGINEERING PRINCIPAL TO THE DESIGN AND DEVELOPMENT OF EQUIPMENT AND ASSIST THE DESIGNER.

AN ASSISTANT DESIGNER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Prepare working plan for the development, manufacturing and installation of machinery and equipment.
2. Prepare working drawing showing methods of manufacturing, joining and fastening, utilizing knowledge of machine shop practices.
3. Carry out design drawing.
4. Prepare field trips to obtain measurement, restriction, pertinent codes and applicable by laws.
5. Study preliminary sketches.
6. Perform other duties as assign by superior.

LEVEL 3

INDUSTRIAL PRODUCT DESIGN SENIOR TECHNICIAN

AN INDUSTRIAL PRODUCT DESIGN SENIOR TECHNICIAN IS DESIGNATED TO DEVELOP NEW PRODUCTS, CREATE PROTOTYPES AND PRODUCT SIMULATIONS, AND MANUFACTURE THE FINISHED DESIGN.

AN INDUSTRIAL PRODUCT DESIGN SENIOR TECHNICIAN MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Evaluate project sketches.
2. Coordinate drawing data.
3. Produce product data management.
4. Assemble 3d components.
5. Present 3d visualizations finished model.
6. Prepare project documentation.
7. Coordinate internal and external discussion.
8. Carry out prototyping method selection and fabrication.
9. Carry out prototype component assembly.
10. Prepare work schedule and monitor work progress.
11. Ensure safe working environment.
12. Conduct meeting and in house training.

LEVEL 3

FABRICATION SUPERVISOR

A FABRICATION SUPERVISOR IS DESIGNATED TO SUPERVISE AND COORDINATE ACTIVITIES OF WORKERS ENGAGE IN FABRICATION OPERATION.

A FABRICATION SUPERVISOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Study work orders, determines manpower requirement and estimates materials and supplies needed for completion work.
2. Coordinate for manpower arrangement and assignment for daily operations.
3. Recommend or initiates personnel actions such as promotions, transfers, discharges and disciplinary actions and monitors personnel attendance records.
4. Train or arrange for the training of workers and explains company policies.
5. Initiate or suggest plans to motivate workers to achieve goals.
6. Confirm that quality of work meets standards and enforced safety regulations.
7. Analyse and resolves work problems.
8. Prepare and submit production, progress or other reports.
9. Perform other duties as assign by superior.

LEVEL 3

PRODUCTION SUPERVISOR

A PRODUCTION SUPERVISOR IS DESIGNATED TO SUPERVISE AND COORDINATE ACTIVITIES OF PRODUCTION WORKERS.

A PRODUCTION SUPERVISOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Study work orders and determine manpower requirements, estimates materials and supplies needed for completion of work.
2. Coordinate the manpower arrangement and assignment for daily operations.
3. Recommend or initiates personnel actions such as promotions, transfers, discharges and disciplinary actions and monitors personnel and attendance records.
4. Train or arrange for the training of workers and explains company policies.
5. Initiate or suggest plans to motivate workers to achieve goals.
6. Confirm that quality of work meets standards and enforced safety regulations.
7. Analyse and resolves work problems.
8. Prepare and submit production progress or other reports.
9. Perform other duties as assign by superior.

LEVEL 3

LABORATORY SENIOR TECHNICIAN

A LABORATORY SENIOR TECHNICIAN IS DESIGNATED TO TEST, ANALYSE AND COORDINATE TESTING LABORATORY.

A LABORATORY SENIOR TECHNICIAN MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Monitor the daily testing conducted by the laboratory comply with the customer requirements.
2. Prepare calibration schedule and monitor its implementation.
3. Prepare the SOP for equipment testing verification and calibration.
4. Conduct and monitor new testing method.
5. Conduct internal calibration of equipment.
6. Report the testing result to the superior.
7. Perform other duties as assign by superior.

LEVEL 3

LOGISTIC SUPERVISOR

A LOGISTIC SUPERVISOR IS DESIGNATED TO SUPERVISE AND COORDINATE ACTIVITIES OF PRODUCTION WORKERS.

A LOGISTIC SUPERVISOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Manage day to day warehouse operations.
2. Review and implement proper physical inventory system and procedures.
3. Supervise and verify incoming and outgoing goods and materials.
4. Prepare filing of all documents to ensure easy access and traceability.
5. Allocate work/supervise and review performance of subordinates
6. Confirm effective manpower utilization and work distribution
7. Compile report for month end and year end stock balance.
8. Study work orders and determine manpower requirements, estimates materials and supplies needed for completion of work.
9. Coordinate the manpower arrangement and assignment for daily operations.
10. Recommend or initiates personnel actions such as promotions, transfers, discharges and disciplinary actions and monitors personnel and attendance records.
11. Train or arrange for the training of workers and explains company policies.
12. Initiate or suggest plans to motivate workers to achieve goals.
13. Confirm that quality of work meets standards and enforced safety regulations.
14. Analyse and resolves work problems.
15. Prepare and submit production, progress or other reports.
16. Perform other duties as assign by superior.

LEVEL 4

RESEARCHER

A RESEARCHER IS DESIGNATED TO ARRANGE, SUPERVISE OR CONDUCT THE STUDY OF DESIGN DEVELOPMENT AND PROCESSES.

A RESEARCHER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Prepare designs and cost estimate.
2. Analyse and solves problem concerned with utilization of process, machinery, materials and equipment as a research experiment.
3. Supervise preparation of working drawing and specification indicating materials to be used and the methods of manufacture.
4. Direct feasibility studies, construction, modification and final testing of prototypes, products or pilot plants.
5. Evaluate installed plant, mechanical process and product to ensure compliance with specification and safety standard.
6. Recommend modification, repair and maintenance procedures.
7. Collaborate with engineers in other disciplines.
8. Perform other duties as assign by superior.

LEVEL 4

DESIGNER

A DESIGNER IS DESIGNATED TO ESTABLISH ENGINEERING PRINCIPAL TO THE DESIGN AND DEVELOPMENT OF EQUIPMENTS, STRUCTURES, PROCESSES AND SYSTEMS.

A DESIGNER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Prepare working plan for the development, manufacturing and installation of machinery and equipment.
2. Analyse proposal, product or equipment specification and process requirements to conceive practical design.
3. Determine feasibility from stand point of cost, space, time limitation, company plans, availability of standard equipment and other technical and economic factor.
4. Consult the customer representative to resolve design problem related to product styling and production planning.
5. Prepare related installation, operation and maintenance specification and instructions.
6. Perform other duties as assign by superior.

LEVEL 4

FABRICATION EXECUTIVE

A FABRICATION EXECUTIVE IS DESIGNATED TO POSSES QUALIFICATIONS THROUGH EITHER FORMAL EDUCATION OR WORK EXPERIENCE.

A FABRICATION EXECUTIVE MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Plan and coordinate activities for fabrication shop floor including training needs.
2. Plan and determine the manpower and resources required for fabrication based on orders received or forecasted.
3. Prepare and propose for resources required for budget preparation.
4. Participate in planning and countermeasure meetings to improve overall fabrications quality based on internal and customer feedback.
5. Perform inspection to ensure that quality of work meets specification and enforces safety standards.
6. Prepare and submit progress and performance reports to the management.
7. Participate in internal quality audits to further improve overall company quality performance.
8. Perform other duties as assign by superior.

LEVEL 4

PRODUCTION EXECUTIVE

A PRODUCTION EXECUTIVE IS DESIGNATED TO PLAN AND COORDINATE ACTIVITIES FOR PRODUCTION SHOP FLOOR INCLUDING TRAINING IN NEEDS.

A PRODUCTION EXECUTIVE MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Plan and determine the manpower and resources required to run production based on volume planned.
2. Prepare and propose for recourses required for budget preparation.
3. Participate in planning and countermeasure meetings to improve production operation.
4. Confirm that quality of work meets standard and enforces safety regulations.
5. Prepare and submit productions, progress or other reports to the management.
6. Participate in internal production audit to further improve overall company production performance.
7. Perform other duties as assign by superior.

LEVEL 4

ANALYST

AN ANALYST IS DESIGNATED TO CARRY OUT ANALYTICAL WORK AND DATA EVALUATION OF THE TESTING RESULT.

AN ANALYST MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Analyse and evaluate all the testing result.
2. Conduct research into analytical technique methodology and procedure.
3. Conduct experiment and formulated analytical technique methodology and procedure.
4. Prepare laboratory report.
5. Supervise and coordinate technician and laboratory staff.
6. Trouble shoots and solve problem when any problem related to the lab occurred.
7. Verifiy all testing method and all equipment SOP.
8. Perform other duties as assign by superior.

LEVEL 4

LOGISTIC EXECUTIVE

A LOGISTIC EXECUTIVE IS DESIGNATED TO PLAN AND COORDINATE ACTIVITIES FOR PRODUCTION SHOP FLOOR INCLUDING TRAINING IN NEEDS.

A LOGISTIC EXECUTIVE MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Execute, control and monitor all waste and scrap operation.
2. Responsible for all Quality and Audit on Waste and Scrap related topics.
3. Responsible for all Waste and Scrap related processes and handling and process flow documentations.
4. Coordinate with transporter/ forwarding/shipping agent for booking container, dispatch or freight.
5. Responsible for all shipping related documents.
6. Responsible for the shipping coordination and arrangements of import and export clearance.
7. Plan and determines the manpower and resources required to run logistic based on volume planned.
8. Prepare and propose for recourses required for budget preparation.
9. Participate in planning and countermeasure meetings to improve logistic operation.
10. Confirm that quality of work meets standard and enforces safety regulations.
11. Prepare and submit production, progress or other reports to the management.
12. Participate in internal logistic audit to further improve overall company logistic performance.
13. Perform other duties as assign by superior.

LEVEL 5

R&D AND DESIGN MANAGER

A R&D AND DESIGN MANAGER IS DESIGNATED TO PLAN, ORGANIZE, DIRECT AND CONTROL THE ACTIVITIES OF R&D AND DESIGN DEPARTMENT.

A R&D AND DESIGN MANAGER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Establish procedures to implement policies and direction of management.
2. Recommend changes in policies to achieve R&D and design objective.
3. Prepare and submit financial estimation for approval.
4. Determine organization structure within his/her responsibility.
5. Coordinate activities within R&D and Design department and with other department.
6. Review effectiveness of assigned R&D and Design work, enforces regulation.
7. Define subordinate job function.
8. Negotiate with designers, researcher, subordinates and other parties on related matters
9. Perform other duties as assign by superior.

LEVEL 5

FABRICATION MANAGER

A FABRICATION MANAGER IS DESIGNATED TO PLAN, ORGANIZE DIRECT AND CONTROL THE ACTIVITIES OF A FABRICATION AND PRODUCTION DEPARTMENT.

A FABRICATION MANAGER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Establish procedures to implement policies and direction of fabrication and production management.
2. Recommend changes in policies to achieve assigned objective.
3. Prepare and submit financial estimates for approval.
4. Determine organization structure within his/her responsibility.
5. Coordinate activities within fabrication and production department and with other department.
6. Review effectiveness of assigned fabrication and production work, enforces regulation and prepares report.
7. Negotiate with fabrication specialist and production executives ,subordinates and other parties on fabrication and production related matters.
8. Perform other duties as assign by superior.

LEVEL 5

PRODUCTION MANAGER

A PRODUCTION MANAGER IS DESIGNATED TO PLAN, ORGANIZE, DIRECT AND CONTROL THE ACTIVITIES OF A FABRICATION AND PRODUCTION DEPARTMENT.

A PRODUCTION MANAGER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Establish procedures to implement policies and direction of fabrication and production management.
2. Recommend changes in policies to achieve assigned objective.
3. Prepare and submit financial estimates for approval.
4. Determine organization structure within his/her responsibility.
5. Coordinate activities within fabrication and production department and with other department.
6. Review effectiveness of assigned fabrication and production work, enforces regulation and prepares report.
7. Negotiate with fabrication specialist and production executives, subordinates and other parties on fabrication and production related matters.
8. Perform other duties as assign by superior.

LEVEL 5

QUALITY MANAGER

A QUALITY MANAGER IS DESIGNATED TO PLAN, ORGANIZE, DIRECT AND CONTROL THE ACTIVITIES OF A QUALITY DEPARTMENT.

A QUALITY MANAGER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Establish procedures to implement policies and direction of quality management.
2. Recommend changes in policies to archive assigned objective.
3. Prepare and submit financial estimates for approval.
4. Determine organization structure within his/her responsibility.
5. Coordinate activities within quality department and with other department.
6. Review effectiveness of assigned quality work, enforces regulation and prepare report.
7. Negotiate with subordinates and other parties on quality related matters.
8. Perform other duties as assign by superior.

LEVEL 5

LOGISTIC MANAGER

A LOGISTIC MANAGER IS DESIGNATED TO PLAN, ORGANIZE, DIRECT AND CONTROL THE ACTIVITIES OF LOGISTIC DEPARTMENT.

A LOGISTIC MANAGER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Responsible for all logistic operations, stock control, process improvement for higher efficiency.
2. Coordinate with other departments, suppliers, customers and shipping forwarders for smooth operation flow.
3. Perform manufacturing flows documents, common freight and logistic procedures.
4. Plan Raw materials to ensure timely delivery of Finished Goods to meet customers' requirements/orders.
5. Verify timely preparation of accurate weekly/monthly reports.
6. Establish procedures to implement policies and direction of logistic management.
7. Recommend changes in policies to archive assigned objective.
8. Prepare and submit financial estimates for approval.
9. Determine organization structure within his/her responsibility.
10. Coordinate activities within logistic department and with other department.
11. Review effectiveness of assigned logistic work, enforces regulation and prepares report.
12. Negotiate with logistic executive subordinates and other parties on logistic related matters.
13. Perform other duties as assign by superior.

LEVEL 6

PLANT SENIOR MANAGER

A PLANT SENIOR MANAGER IS DESIGNATED TO DEVELOP LONG AND SHORT-RANGE PLANNING, POLICIES, PROGRAMS AND OBJECTIVES ASSOCIATED WITH THE MANUFACTURE OF THE COMPANY'S PARTS AND PRODUCTS.

A PLANT SENIOR MANAGER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Formulate and implement Manufacturing Department's plan to support corporate objectives.
2. Implement, monitored, control, plan operational activities to achieve targeted performance in quality, cost and delivery.
3. Organize the Manufacturing Department structure, procedures, job responsibility and functionality of subordinates.
4. Monitor and report on quality, productivity and activities on a periodical basis to general manager/managing director with analysis of the source of contributing factors on the achievement or failure.
5. Review and analyze reports e.g. KPI etc.
6. Facilitate training for staff development.
7. Leading and motivating subordinates to achieve their set objectives.
8. Measure and monitoring subordinates' performance accordingly.
9. Review and monitor production performance regularly.
10. Facilitate the cost saving and process improvement to all manufacturing functions.
11. Conduct regular production meeting to monitor production performances.
12. Lead OSH, GMP, ISO and other system recognize by the Management.
13. Lead the initiation of improvements in production methods, equipment, operating procedures and working conditions.
14. Perform other minor or ad-hoc activity or function.

JOB TITLES

(ASSEMBLING AND INSTALLATION – FITTING, ASSEMBLING, TESTING, COMMISSIONING OPERATION CONTROL)

LEVEL 1
FITTER

LEVEL 2
SENIOR FITTER
ASSEMBLY TECHNICIAN

LEVEL 3
FITTING FOREMAN
ASSEMBLY ASSISTANT ENGINEER
TESTING ASSISTANT SPECIALIST
COMMISSIONING ASSISTANT SPECIALIST

LEVEL 4
FITTING EXECUTIVE
ASSEMBLY ENGINEER
TESTING SPECIALIST
COMMISSIONING SPECIALIST

LEVEL 5
ASSEMBLING & INSTALLATION MANAGER

LEVEL 6
PLANT SENIOR MANAGER

LEVEL 7
Not Available

LEVEL 8
Not Available

LEVEL 1

FITTER

A FITTER IS DESIGNATED TO FIT AND ASSEMBLE PARTS AND SUBASSEMBLE TO BUILD MACHINERY AND EQUIPMENT.

A FITTER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Examine blueprint and specifications and plans building sequence.
2. Move machine parts into positions using hoist or other lifting equipments.
3. Carry out layout mounting holes and reference lines using transit, square, rule, tape centre punch and scriber.
4. Carry out drill, taps and ream holes using drill press or portable drill.
5. Carry out files, grinds, laps, or scrapes parts to remove high spots and ensure proper fits.
6. Carry out bolts, screws, rivets, dowels, tack-welds, shrink-fit or press fits part activities together to assemble machine or equipment, using hand tools power tools, welding equipment, acetylene torch and arbor press.
7. Carry out cuts, threads and install hydraulic, pneumatic, oil or water lines.
8. Verify alignment and clearances of parts, using gauge, micrometer, calipers and other measuring instruments.
9. Operate unit to test performance and makes adjustments as required.
10. Perform other duties as assign by superior.

LEVEL 2

SENIOR FITTER

A SENIOR FITTER IS DESIGNATED TO FIT AND ASSEMBLES PARTS AND SUBASSEMBLIES TO BUILD MACHINERY AND EQUIPMENT.

A SENIOR FITTER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Examine blueprint and specifications and plans building sequence.
2. Carry out drill, taps and ream holes using drill press or portable drill.
3. Carry out files, grinds, laps, or scrapes parts to remove high spots and ensure proper fits.
4. Carry out bolts, screws, rivets, dowels, tack-welds, shrink-fit or press fits part together to assemble machine or equipment, using hand tools power tools, welding equipment, acetylene torch and arbor press.
5. Carry out cuts, threads and install hydraulic, pneumatic, oil or water lines.
6. Verify alignment and clearances of parts, using gauge, micrometer, calipers, and other measuring instruments.
7. Operate unit to test performance and makes adjustments as required.
8. Train or monitor new fitter.
9. Perform other duties as assign by superior.

LEVEL 2

ASSEMBLY TECHNICIAN

AN ASSEMBLY TECHNICIAN IS DESIGNATED TO INSPECT, ADJUST, AND REPAIR OPERATIONAL PROBLEMS AFFECTING PRODUCTION IN SYSTEMATIC, METHODICAL MANNER.

AN ASSEMBLY TECHNICIAN MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Inspect, adjust, and repair office machines, using hand tools and test equipment.
2. Interpret machine assembly specifications, such as charts, blueprints, schematic diagrams, and engineering specifications.
3. Determine requirements, such as drive speed, timing of card feed and output, and installation of special features ordered by customer.
4. Operate machine, to observe and listen the operation of moving parts, to measure clearances and contact gaps, and to measure voltages and continuity, using voltmeter, ohmmeter, and test lights.
5. Repair assembly errors noted by quality control personnel.
6. Install hardware, drill holes and insert pins to complete assembly prior to final testing of machine.
7. Train workers in assembly operations.

* Pre-requisite:
  Assembly Technician is to be qualified from general worker who has 2 years working experience in area of assembling installation.

LEVEL 3

FITTING FOREMAN

A FITTING FOREMAN IS DESIGNATED TO SUPERVISE AND COORDINATE ACTIVITIES OF FITTING WORKERS.

A FITTING FOREMAN MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Interpret work orders and determine manpower requirements, estimates materials and supplies needed for completion of work.
2. Coordinate the manpower arrangement and assignment for daily operations.
3. Recommend or initiate personnel actions such as promotions, transfers, discharges and disciplinary actions and monitors personnel and attendance records.
4. Train or arrange for the training of workers and explains company policies.
5. Initiate or suggest plans to motivates workers to achieve goals.
6. Confirm that quality of work meets standards and enforced safety regulations.
7. Analyse and resolves work problems.
8. Prepare and submit production, progress or other reports.
9. Perform other duties as assign by superior.

LEVEL 3

ASSEMBLY ASSISTANT ENGINEER

AN ASSEMBLY ASSISTANT ENGINEER IS DESIGNATED TO MANAGE PROCESS AND EQUIPMENT TO ENSURE FACTORY MEET THE FACTORY AND PLATFORM CRITICAL SUCCESS INDICATORS IN TERM OF SAFETY, QUALITY, EQUIPMENT PERFORMANCE AND COST.

AN ASSEMBLY ASSISTANT ENGINEER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Respond floor critical escalation resolution for module in order to support business need.
2. Manage production for all engineering requirement and set production line as per project requirement.
3. Coach equipment Expert Team and developing Machine Owners professionalism.
4. Lead task force and trouble shooting situations.
5. Inspect continuous improvements and breakthroughs of the tools and/or module.
6. Lead cost saving initiation for maximization factory quality output and cost performance.

LEVEL 3

TESTING ASSISTANT SPECIALIST

A TESTING ASSISTANT SPECIALIST IS DESIGNATED TO TEST, ANALYSE AND COORDINATE TESTING LABORATORY.

A TESTING SPECIALIST MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Monitor the daily testing conducted by the laboratory comply with the customer requirements.
2. Prepare calibration schedule and monitor its implementation.
3. Prepare the SOP for equipment testing verification and calibration.
4. Conduct and monitor new testing method.
5. Conduct internal calibration of equipment.
6. Report the testing result to the superior.
7. Perform other duties as assign by superior.

* Pre-requisite:
  Minimum Qualification for L3 Testing Assistant Specialist is diploma with 2 years working experience in assembly installation works.

LEVEL 3

COMMISSIONING ASSISTANT SPECIALIST

A COMMISSIONING ASSISTANT SPECIALIST IS DESIGNATED TO ASSIST COMMISSIONING SPECIALIST TO PERFORM FOR ALL PROJECT COMMISSIONING PRACTICES AND PROJECT SCHEDULE COMPLIANCE.

A COMMISSIONING ASSISTANT SPECIALIST MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Perform administration of construction activities, including shop drawing logs, RFI responses, on-site observation and field report documentation.
2. Monitor construction and manage commissioning meetings.
3. Witness system installation and functional testing.
4. Verify all forms have been completed and signed off.
5. Perform M&O training, and post-occupancy walk troughs.
6. Work with the project architects and engineers to survey sites/facilities.
7. Verify condition of equipment and systems must be willing to accept out-of-town travel assignments to meet project demands.
8. Perform other duties as assign by superior.

* Pre-requisite:
  Minimum Qualification for L3 Commissioning Assistant Specialist is diploma with 2 years working experience in commissioning works.

LEVEL 4

FITTING EXECUTIVE

A FITTING EXECUTIVE IS DESIGNATED TO PLAN AND COORDINATE ACTIVITIES FOR FITTING SHOP FLOOR INCLUDING TRAINING IN NEEDS.

A FITTING EXECUTIVE MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Plan and determine the manpower and resources required to run fitting based on volume planned.
2. Prepare and propose for resources required for budget preparation.
3. Participate in planning and countermeasure meetings to improve fitting operation.
4. Confirm that quality of work meets standard and enforces safety regulations.
5. Prepare and submit production, progress or other reports to the management.
6. Participate in internal quality audit to further improve overall company quality performance.
7. Perform other duties as assign by superior.

LEVEL 4

ASSEMBLY ENGINEER

AN ASSEMBLY ENGINEER IS DESIGNATED TO MANAGE PROCESS AND EQUIPMENT TO ENSURE FACTORY MEETS THE FACTORY AND PLATFORM CRITICAL SUCCESS INDICATORS IN TERM OF SAFETY, QUALITY, EQUIPMENT PERFORMANCE AND COST.

AN ASSEMBLY ENGINEER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Respond floor critical escalation resolution for module in order to support business need
2. Monitor own workload and plan resources accordingly to achieve completion targets on time and to budget.
3. Manage production for all engineering requirement and set production line as per project requirement.
4. Coach equipment Expert Team and developing Machine Owners professionalism.
5. Lead task force and trouble shooting situations.
6. Inspect continuous improvements and breakthroughs of the tools and/or module.
7. Lead cost saving initiation for maximization factory quality output and cost performance.

LEVEL 4

TESTING SPECIALIST

A TESTING SPECIALIST IS DESIGNATED TO CARRY OUT ANALYTICAL WORK AND DATA EVALUATION OF THE TESTING RESULT.

A TESTING SPECIALIST MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Analyse and evaluate all the testing result.
2. Conduct research into analytical technique methodology and procedure.
3. Conduct experiment and formulated analytical technique methodology and procedure.
4. Prepare laboratory report.
5. Supervise and coordinate technician and laboratory staff.
6. Troubleshoot and solve problem when any problem related to the lab occurred.
7. Verify all testing method and all equipment Standard Operation Procedure (SOP).
8. Perform other duties as assign by superior.

LEVEL 4

COMMISSIONING SPECIALIST

A COMMISSIONING SPECIALIST IS DESIGNATED TO RESPONSIBLE FOR ALL PROJECT COMMISSIONING PRACTICES AND PROJECT SCHEDULE COMPLIANCE.

A COMMISSIONING SPECIALIST MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Promote efficient and cost effective site activities by providing ongoing assessment of personnel and current commissioning practices.
2. Maintain technical knowledge by keeping current on applicable processes, practices and best methods.
3. Verify proper operation of all systems and equipment.
4. Verify effective application of all strategic commissioning tools, techniques and programs such as Commissioning Manual, Field Reference Guidelines, Manufacturers' recommendations, Complete IT, standard industry practices and so on.
5. Promote and sponsor training programs to enhance skills, performance and development of all employees.
6. Confirm adherence to specifications and promotes work of the highest quality.
7. Maintain a safe and healthy work environment by following and ensuring adherence to:
    - Established project Safety Procedures.
    - Work Permit Procedures.
    - Work Order Procedures.
    - Federal, State and Local regulations.
    - Lock Out/Tag Out (LOTO) Procedures.

8. Review project schedules and develops work plans to support project milestones.
9. Report discipline progress against scheduled activities.
10. Direct craft personnel during assigned commissioning activities.
11. Perform other duties as assign by superior.

LEVEL 5

ASSEMBLING & INSTALLATION MANAGER

AN ASSEMBLING & INSTALLATION MANAGER IS DESIGNATED TO PLAN ORGANIZE, DIRECT AND CONTROL THE ACTIVITIES OF A FITTING, SYSTEM INTEGRATION AND COMMISSIONING DEPARTMENT.

AN ASSEMBLING & INSTALLATION MANAGER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Establish procedures to implement policies and direction of Fitting, System Integration and Commissioning management.
2. Recommend changes in policies to achieve assigned objective.
3. Prepare and submit financial estimates for approval.
4. Determine organization structure within his/her responsibility.
5. Coordinate activities within Fitting, System Integration and Commissioning department and with other department.
6. Review effectiveness of assigned fitting work, enforces regulation and prepare report.
7. Negotiate with Fitting Executives, System Integration Technologist, Commissioning Specialist subordinates and other parties on Fitting, System Integration and Commissioning related matters
8. Perform other duties as assign by superior.

LEVEL 6

PLANT SENIOR MANAGER

A PLANT SENIOR MANAGER IS DESIGNATED TO DEVELOP LONG AND SHORT-RANGE PLANNING, POLICIES, PROGRAMS AND OBJECTIVES ASSOCIATED WITH THE MANUFACTURE OF THE COMPANY'S PARTS AND PRODUCTS.

A PLANT SENIOR MANAGER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Formulate and implement Manufacturing Department's plan to support corporate objectives.
2. Implement, monitored, control, plan operational activities to achieve targeted performance in quality, cost and delivery.
3. Organize the Manufacturing Department structure, procedures, job responsibility and functionality of subordinates.
4. Monitor and report on quality, productivity and activities on a periodical basis to general manager/managing director with analysis of the source of contributing factors on the achievement or failure.
5. Review and analyze reports e.g. KPI etc.
6. Facilitate training for staff development.
7. Leading and motivating subordinates to achieve their set objectives.
8. Measure and monitoring subordinates' performance accordingly.
9. Review and monitor production performance regularly.
10. Facilitate the cost saving and process improvement to all manufacturing functions.
11. Conduct regular production meeting to monitor production performances.
12. Lead OSH, GMP, ISO and other system recognize by the Management.
13. Lead the initiation of improvements in production methods, equipment, operating procedures and working conditions.
14. Perform other minor or ad-hoc activity or function.

JOB TITLES

(OPERATION CONTROL - QUALITY ASSURANCE, SUPPLY CHAIN)

LEVEL 1
QUALITY INSPECTOR
STORE KEEPER

LEVEL 2
QUALITY SENIOR INSPECTOR
SENIOR STORE KEEPER

LEVEL 3
QUALITY SUPERVISOR
PURCHASING SUPERVISOR

LEVEL 4
QUALITY EXECUTIVE
PURCHASING EXECUTIVE

LEVEL 5
QUALITY MANAGER
PURCHASING MANAGER

LEVEL 6
Not Available

LEVEL 7
Not Available

LEVEL 8
Not Available

LEVEL 1

QUALITY INSPECTOR

A QUALITY INSPECTOR IS DESIGNATED TO ASSIST QUALITY SENIOR INSPECTOR TO PERFORM PARTS INSPECTION AND PRODUCT MEASUREMENT.

A PRODUCTION EXECUTIVE MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Identify defects in components.
2. Keep update daily logs.
3. Participate and provide technical solution to quality issues.
4. Discuss with the production supervisors on priority of items inspection.
5. Discuss with the production and other relevant departments to resolve quality issues.
6. Maintain measuring equipment including registration and calibration.
7. Maintain proper filing of QC measurement reports for both parts and product.
8. Adhere to all safety and health rules and regulations.
9. Perform other duties as assign by superior.

LEVEL 1

STORE KEEPER

A STORE KEEPER IS DESIGNATED TO ASSIST SENIOR STORE KEEPER PERFORM FOR LOGISTIC/SHIPMENT AND STOCK CONTROL.

A STORE KEEPER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Coordinate with related department, suppliers, customers and shipping forwarders for smooth operation flow.
2. Prepare and arrange commercial and shipping documents for import and export.
3. Liaise and deal with freight forwarders, transporter, customs, MITI, MIDA, & etc to achieve efficient delivery process.
4. Handle import/export shipment, custom clearance and provide logistic support.
5. Carry out custom & shipping documentation, i.e. invoice Packing List, B/L, Insurance, CO. L/C.
6. Prepare invoices, carry out preparation of documents.
7. Handle custom declaration and LMW reports.
8. Monitor stocks level in store to ensure required buffer level is maintained.
9. Perform other duties as assign by superior.

LEVEL 2

QUALITY SENIOR INSPECTOR

A QUALITY SENIOR INSPECTOR IS DESIGNATED TO PERFORM PARTS INSPECTION AND PRODUCT MEASUREMENT.

A PRODUCTION EXECUTIVE MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Identify defects in components.
2. Keep update daily logs.
3. Participate and provide technical solution to quality reject issues.
4. Liaise with the quality supervisors on priority of items inspection
5. Discuss with the quality and other relevant departments to resolve quality issues.
6. Maintain measuring equipment including registration and calibration.
7. Maintain proper filing of QC measurement reports for both parts and product.
8. Train or monitor new quality Inspector in doing their job.
9. Adhere to all safety and health rules and regulations.
10. Perform other duties as assign by superior.

LEVEL 2

SENIOR STORE KEEPER

A SENIOR STORE KEEPER IS DESIGNATED TO PERFORM FOR LOGISTIC/ SHIPMENT AND STOCK CONTROL.

A SENIOR STORE KEEPER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Provide training to new Store Keeper in doing his/her job.
2. Monitor the daily performance of the subordinates to ensure target is achieved.
3. Establish daily target for Store Keeper.
4. Inform any information from the management to Store Keeper.
5. Check and verify the appropriate equipment are available for store keeper to do their jobs such as gloves, goggles, caps, aprons and ear plug where applicable.
6. Perform as relief store keeper in cases where there is shortage of store keeper.
7. Report to superior on line performance on daily basis.
8. Perform other duties as assign by superior.

LEVEL 3

QUALITY SUPERVISOR

A QUALITY SUPERVISOR IS DESIGNATED TO SUPERVISE AND COORDINATE ACTIVITIES OF QUALITY WORKERS.

A PRODUCTION EXECUTIVE MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Liaise with other department in any issue related to quality aspects.
2. Participate in internal and external complaint or quality issue solving.
3. Verify the entire quality inspection system are maintain.
4. Study work orders and determine manpower requirements, estimates materials and supplies needed for completion of work.
5. Coordinate the manpower arrangement and assignment for daily operations.
6. Recommend or initiate personnel actions such as promotions, transfers, discharges and disciplinary actions and monitors personnel and attendance records.
7. Train or arrange for the training of workers and explains company policies.
8. Initiate or suggest plans to motivate workers to achieve goals.
9. Confirm that quality of work meets standards and enforced safety regulations.
10. Analyse and resolve work problems.
11. Prepare and submit quality progress or other reports.

LEVEL 3

PURCHASING SUPERVISOR

A PURCHASING SUPERVISOR IS DESIGNATED TO SUPERVISE AND COORDINATE ACTIVITIES OF PURCHASING WORKERS.

A PURCHASING SUPERVISOR MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Study work orders and determine manpower requirements, estimates materials and supplies needed for completion of work.
2. Coordinate the manpower arrangement and assignment for daily operations.
3. Recommend or initiates personnel actions such as promotions, transfers, discharges and disciplinary actions and monitors personnel and attendance records.
4. Train or arrange for the training of workers and explains company policies.
5. Initiate or suggest plans to motivate workers to achieve goals.
6. Analyse and resolves work problems.
7. Prepare and submit purchasing progress or other reports.
8. Perform other duties as assign by superior.

LEVEL 4

QUALITY EXECUTIVE

A QUALITY EXECUTIVE IS DESIGNATED TO PLAN AND COORDINATE ACTIVITIES FOR QUALITY SHOP FLOOR INCLUDING TRAINING NEEDS.

A PRODUCTION EXECUTIVE MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Plan and determine the manpower and resources required to run quality based on volume planned.
2. Prepare and propose for recourses required for budget preparation.
3. Involve in planning and countermeasure meetings to improve quality operation.
4. Confirm that quality of work meets standard and enforces safety regulations.
5. Prepare and submit quality progress or other reports to the management.
6. Participate in internal quality audit to further improve overall company quality performance.
7. Perform other duties as assign by superior.

LEVEL 4

PURCHASING EXECUTIVE

A PURCHASING EXECUTIVE IS DESIGNATED TO PLAN, COORDINATE AND EXECUTE ACTIVITIES FOR PURCHASING DEPARTMENT.

A PURCHASING EXECUTIVE MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Plan and determine the manpower and resources required to perform purchasing based on volume planned.
2. Prepare and propose for resourses required for budget preparation.
3. Lead in planning and countermeasure meetings to improve purchasing operation.
4. Prepare and submit purchasing progress or other reports to the management.
5. Lead in internal audit to further improve overall company performance.
6. Perform other duties as assign by superior.

LEVEL 5

QUALITY MANAGER

A QUALITY MANAGER IS DESIGNATED TO PLAN, ORGANIZE, DIRECT AND CONTROL THE ACTIVITIES OF A QUALITY DEPARTMENT.

A PRODUCTION EXECUTIVE MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Establish procedures to implement policies and direction of quality management.
2. Recommend changes in policies to achieve department objective.
3. Prepare and submit financial estimates for approval.
4. Determine organization structure within his/her responsibility.
5. Coordinate activities within quality department and with other department.
6. Review effectiveness of assigned quality work, enforces regulation and prepare report.
7. Discuss with quality executives, subordinates and other parties on quality related matters.
8. Perform other duties as assign by superior.

LEVEL 5

PURCHASING MANAGER

A PURCHASING MANAGER IS DESIGNATED TO PLAN, ORGANIZE, DIRECT AND CONTROL THE ACTIVITIES OF A PURCHASING AND PRODUCTION DEPARTMENT.

A PURCHASING MANAGER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Establish procedures to implement policies and procedure of purchasing and production management.
2. Recommend changes in policies to achieve department objective.
3. Prepare and submit financial estimates for approval.
4. Determine organization structure within his/her responsibility.
5. Coordinate activities within purchasing and production department and with other department.
6. Review effectiveness of assigned purchasing and production work, enforces regulation and prepares report.
7. Discuss with purchasing and production executives, subordinates and other parties on quality related matters.
8. Manage and execute company purchasing strategy.
9. Verify that all supplies of good and services are provided in the most cost-effective manner.
10. Perform other duties as assign by superior.

LEVEL 6

PLANT SENIOR MANAGER

A PLANT SENIOR MANAGER IS DESIGNATED TO DEVELOP LONG AND SHORT-RANGE PLANNING, POLICIES, PROGRAMS AND OBJECTIVES ASSOCIATED WITH THE MANUFACTURE OF THE COMPANY'S PARTS AND PRODUCTS.

A PLANT SENIOR MANAGER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT.

In particular the person will:

1. Formulate and implement Manufacturing Department's plan to support corporate objectives.
2. Implement, monitored, control, plan operational activities to achieve targeted performance in quality, cost and delivery.
3. Organize the Manufacturing Department structure, procedures, job responsibility and functionality of subordinates.
4. Monitor and report on quality, productivity and activities on a periodical basis to general manager/managing director with analysis of the source of contributing factors on the achievement or failure.
5. Review and analyze reports e.g. KPI etc.
6. Facilitate training for staff development.
7. Leading and motivating subordinates to achieve their set objectives.
8. Measure and monitoring subordinates' performance accordingly.
9. Review and monitor production performance regularly.
10. Facilitate the cost saving and process improvement to all manufacturing functions.
11. Conduct regular production meeting to monitor production performances.
12. Lead OSH, GMP, ISO and other system recognize by the Management.
13. Lead the initiation of improvements in production methods, equipment, operating procedures and working conditions.
14. Perform other minor or ad-hoc activity or function.

JOB TITLES

(REPAIR AND MAINTENANCE - MECHANICAL, ELECTRICAL & INSTRUMENTATION)

LEVEL 1
MECHANICS - MECHANICAL
JUNIOR ELECTRICAL TECHNICIAN
MECHANICAL PRECISION INSTRUMENT OPERATOR

LEVEL 2
SENIOR MECHANIC - MECHANICAL
ELECTRICAL TECHNICIAN
MECHANICAL PRECISION INSTRUMENT TECHNICIAN

LEVEL 3
SUPERVISOR - MECHANICAL
SENIOR ELECTRICAL TECHNICIAN
SENIOR MECHANICAL PRECISION INSTRUMENT TECHNICIAN

LEVEL 4
REPAIR AND MAINTENANCE EXECUTIVE

LEVEL 5
REPAIR AND MAINTENANCE MANAGER

LEVEL 6
Not Available

LEVEL 7
Not Available

LEVEL 8
Not Available

LEVEL 1

MECHANIC - MECHANICAL

A MECHANIC - MECHANICAL IS DESIGNATED TO PERFORM MAINTENANCE AND UTILIZATION OF SERVICE EQUIPMENTS AND TOOLS.

A MECHANIC - MECHANICAL MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Conduct machine setup, troubleshooting, repairs and preventive maintenance service.
2. Provide excellent maintenance service and ensure all policies and procedures are carried out in accordance with standard guidelines.
3. Comply with OSHA Safety and Health rules.
4. Prepare and setup machinery for scheduled production runs.
5. Perform mechanic skills including, but not limited to, mechanical, electrical, pneumatic and hydraulic troubleshooting and repair of packaging and production machines.
6. Interpret equipment manuals and work orders to perform required maintenance and service.
7. Dismantle, assemble and maintain standard equipment requiring skilled fitting and alignment.
8. Diagnose and correct machine trouble promptly.
9. Train or monitor junior mechanic in doing their job.
10. Perform other duties as assign by superior.

LEVEL 1

JUNIOR ELECTRICAL TECHNICIAN

A JUNIOR ELECTRICAL TECHNICIAN IS DESIGNATED TO ASSISTS THE ELECTRICAL TECHNICIANS IN THE INSTALLATION, INSPECTION, MAINTENANCE AND REPAIR OF ELECTRICAL EQUIPMENT AND COMPONENTS.

A JUNIOR ELECTRICAL TECHNICIAN MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Install, inspect, maintain and repair of electrical equipment and components.
2. Repair, diagnosis and replace of damaged or malfunctioning equipment in the field.
3. Retrieve parts and supplies required by the electrical technicians.
4. Perform unskilled and semiskilled construction, maintenance and labor work as needed.
5. Prepare work sites.
6. Perform preventive maintenance tasks as directed.
7. Maintain and update daily log of activities.
8. Operate a variety of tools and equipment.
9. Perform under and above ground utility locate duties.
10. Digs trenches for underground electrical installation and/or repair.
11. Maintain positive public relations with emphasis on customer service.
12. Perform other duties as assign by superior.

LEVEL 1

MECHANICAL PRECISION INSTRUMENT OPERATOR

A MECHANICAL PRECISION TECHNICIAN IS DESIGNATED TO UNDERSTAND, OPERATE & MAINTAIN, WITH SUPERVISION, THE VARIOUS TYPES OF INSTRUMENTS.

A MECHANICAL PRECISION TECHNICIAN MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Measure devices and equipment.
2. Maintain and service of instruments includes inspecting, cleaning, and lubricating.
3. Install, repair, and service instrument.
4. Control or automat systems of various types.
5. Measure and control stress, vibrations, temperature, humidity, pressure, volume, motion.
6. Repair electronic, electromechanical, pneumatic or hydraulic instruments.
7. Determine the trouble when an instrument-controlled system are malfunctions.
8. Disassemble and parts checked for defects.
9. Perform major overhauls on instruments.
10. Replace worn or damaged parts, or make simple repairs.
11. Build substitutions for parts that are no longer available.
12. Modify instruments for specialized use.
13. Adjust, check the instrument's timing or other calibrations to ensure maximum performance.
14. Performs limited field and office computations and calculations.

LEVEL 2

SENIOR MECHANIC - MECHANICAL

A SENIOR MECHANIC - MECHANICAL IS DESIGNATED TO TRAIN NEW WORKERS AND PERFORM MAINTENANCE AND UTILIZATION OF SERVICE EQUIPMENTS AND TOOLS.

A SENIOR MECHANIC - MECHANICAL MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Do the manpower arrangement and assignment for daily operations.
2. Study work orders and determine manpower requirements, estimates materials and supplies needed for completion of work.
3. Train or arrange for the training of workers and explains company policies.
4. Service and repair machines as well as attend to all maintenance requests in a timely and efficient manner.
5. Troubleshoot and repair electrical, mechanical, HVAC systems, conveyors, and other material handling equipment.
6. Perform preventative maintenance on equipment and systems.
7. Troubleshoot and repair equipment and systems of electrical and/or mechanical nature.
8. Provide excellent maintenance service and ensure all policies and procedures are carried out in accordance with standard guidelines.
9. Comply with OSHA Safety and Health rules.
10. Confirm all maintenance request are completed at the promised time and continuously strive to exceed maintenance satisfaction.
11. Verify accurate diagnosis and to achieve a high standard of service quality by “fixing it right the first time”.
12. Train or monitor junior mechanic and mechanic in doing their job.
13. Perform other duties as assign by superior.

LEVEL 2

ELECTRICAL TECHNICIAN

AN ELECTRICAL TECHNICIAN IS DESIGNATED TO CHECK AND INSPECT ELECTRICAL FACILITIES TO ENSURE THAT THEY ARE EFFECTIVE AND SAFE TO BE USED FOR OPERATION.

AN ELECTRICAL TECHNICIAN MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Implement the preventive maintenance program for a variety of electrical and electronic equipment and systems.
2. Clean and inspects a variety of electrical equipment.
3. Connect motors; checks for voltage, current, rotation or speed changes; repairs and replaces equipment and components.
4. Maintain, repair and install traffic signal equipment and systems diagnoses.
5. Calibrate, adjusts, and replaces electro-mechanical, solid-state and microprocessor.
6. Maintain and repairs instrumentation and control systems, inspects and calibrates equipment.
7. Install and maintains electrical power systems.
8. Inspect street, park and ball field lighting and underground wiring; installs, maintain and repairs specialized and underground wiring.
9. Maintain and update daily log of activities and prepares reports.
10. Keep abreast of current issues and trends in electrical and electronic equipment.
11. Check construction plans regarding electrical installations and system design.
12. Contact contractors and meets over job site progress.
13. Provide training and instruction to new employees.

14. Act as a resource to other departments and employees.
15. Perform troubleshooting, diagnostic and problem-solving activities.
16. Perform repairs to printed circuit boards and relays as needed.
17. Maintain project records and documentation.
18. Review as-built drawings and operations/maintenance manuals.
19. Perform other duties as assign by superior.

LEVEL 2

MECHANICAL PRECISION INSTRUMENT TECHNICIAN

A MECHANICAL PRECISION INSTRUMENT TECHNICIAN IS DESIGNATED TO INSPECT, TEST, ADJUST AND REPAIR ELECTRIC, ELECTRONIC, MECHANICAL, AND PNEUMATIC INSTRUMENTS AND SYSTEMS USED

A MECHANICAL PRECISION INSTRUMENT MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Inspect meters, indicators, and gauges to detect abnormal fluctuations.
2. Test accuracy of flowmeters, pressure gauges, temperature indicators, controllers, radiation counters or detectors and other recording, indicating or controlling instruments.
3. Locate defective components in system, using test equipment, such as pressure gauges, mercury manometers, potentiometers, pulse and signal generators, oscilloscopes, transistor curve tracers, and ammeters, voltmeters and wattmeters.
4. Trace out and tests electronic solid state and vacuum tube circuitry and components to locate defective parts in analog and digital, protection, or radiation monitoring systems, using test equipment, schematics and maintenance manuals.
5. Remove defective instruments from system, decontaminates, disassembles, and cleans instruments and replaces defective parts, using hand tools.
6. Reassemble instruments and replaces instruments in system, using hand tools.
7. Lubricate instruments and replaces defective wiring and tubing.
8. Calibrate readings on instruments according to standards and adjusts phasing and aligns stages to ensure accuracy of recording and indicating function.
9. Record calibrations made, parts and components used and inventory of parts on hand.
10. Prepare schematic drawings, sketches, and reports to reflect changes or alterations made in instruments, circuits and systems.

LEVEL 3

SUPERVISOR - MECHANICAL

A SUPERVISOR - MECHANICAL IS DESIGNATED TO SUPERVISE AND COORDINATE ACTIVITIES OF MECHANICAL WORKERS.

A SUPERVISOR - MECHANICAL MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Study work orders and determine manpower requirements, estimates materials and supplies needed for completion of work.
2. Coordinate the manpower arrangement and assignment for daily operations.
3. Recommend or initiate personnel actions such as promotion, transfer, discharge and disciplinary actions and monitors personnel and attendance records.
4. Train or arrange for the training of workers and explains company policies.
5. Initiate or suggest plans to motivates workers to achieve goals.
6. Confirm that quality of work meets standards and enforced safety regulations.
7. Analyse and resolves work problems.
8. Prepare and submit work progress or other reports.
9. Perform other duties as assign by superior.

LEVEL 3

SENIOR ELECTRICAL TECHNICIAN

A SENIOR ELECTRICAL TECHNICIAN IS DESIGNATED TO ENSURE ALL ELECTRICAL INSTALLATION OF THE PLANT FACILITIES ARE WELL MAINTAINED AT ALL TIMES.

A SENIOR ELECTRICAL TECHNICIAN MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Execute the preventive maintenance program for a variety of electrical and electronic equipment and systems.
2. Install and maintains electrical power systems.
3. Keep abreast of current issues and trends in electrical and electronic equipment.
4. Check construction plans regarding electrical installations and system design.
5. Contact contractors and meets over job site progress.
6. Act as a resource to other departments and employees.
7. Independently performs troubleshooting, diagnostic and problem-solving activities.
8. Maintain project records and documentation.
9. Review as-built drawings and operations/maintenance manuals.
10. Participate in the design and planning of electrical/electronic construction and maintenance projects.
11. Prepare specifications and lists of needed materials.
12. Review bids to assure that all required components meet specifications
13. Work with outside contractors as assigned.
14. Monitor and inspect construction projects to assure compliance with plans electrical standards and requirements.
15. Coordinate construction schedules.
16. Prepare project change orders for approval.

LEVEL 3

SENIOR MECHANICAL PRECISION INSTRUMENT TECHNICIAN

A SENIOR MECHANICAL PRECISION INSTRUMENT IS DESIGNATED TO PERFORM THE REPAIR AND TESTING WORK REQUIRING HIGHER-LEVEL KNOWLEDGE, SKILLS AND ABILITIES AND SERVES AS A TECHNICAL RESOURCE TO OTHERS.

A SENIOR MECHANICAL PRECISION INSTRUMENT TECHNICIAN MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Read and interprets wiring diagrams, mechanical drawings, and specifications in making installations or performing major repair work.
2. Troubleshoot more complex telemetry, SCADA and PLC software and hardware issues.
3. Make recommendations and performs software changes and maintains documentation of changes to the software and hardware.
4. May direct the work of the instrument technician or others on specific projects and coaches.
5. Train less-experienced instrument technicians and others on the procedures of the work.
6. Review engineering designs and modifications to control systems and recommends both technical and operational improvements.
7. Estimate of labor, materials and supplies as necessary for the performance of specific assignments.

LEVEL 4

REPAIR AND MAINTENANCE EXECUTIVE

A REPAIR AND MAINTENANCE EXECUTIVE IS DESIGNATED TO PLAN AND COORDINATE ACTIVITIES FOR REPAIR AND MAINTENANCE SHOP FLOOR INCLUDING TRAINING IN NEEDS.

A REPAIR AND MAINTENANCE EXECUTIVE MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY.

In particular the person will:

1. Plan and determine the manpower and resources required to run repair and maintenance based on volume planned.
2. Prepare and propose for recourses required for budget preparation.
3. Involve in planning and countermeasure meetings to improve repair and maintenance operation.
4. Confirm that quality of work meets standard and enforces safety regulations.
5. Prepare and submit repair and maintenance progress or other reports to the management.
6. Participate in internal repair and maintenance audit to further improve overall company repair and maintenance performance.
7. Perform other duties as assign by superior.

LEVEL 5

REPAIR AND MAINTENANCE MANAGER

A REPAIR AND MAINTENANCE MANAGER IS DESIGNATED TO PLAN, ORGANIZE, DIRECT AND CONTROL THE ACTIVITIES OF A FABRICATION AND PRODUCTION DEPARTMENT.

A REPAIR AND MAINTENANCE MANAGER MAY BE FOUND IN VARIOUS SECTORS OF MACHINERY AND EQUIPMENT INDUSTRY SUCH AS

In particular the person will:

1. Establish procedures to implement policies and direction of repair and maintenance management.
2. Determine the most efficient sequence of operations and workflow.
3. Establish methods for maximum utilization of facilities and personnel.
4. Plan and schedule training programs for personnel concerning all phases of operations.
5. Conduct studies pertaining to cost control, cost reduction, inventory control, and mechanical record systems.
6. Develop and implement plan and program for facility modifications and revisions to operating methods.
7. Respond to customer and/or client requests or events as they occur.
8. Develop solutions to problems utilizing formal education and judgment.
9. Recommend changes in policies to achieve departmental objective.
10. Prepare and submit financial estimates for approval.
11. Determine organization structure within his/her responsibility.
12. Coordinate activities within repair and maintenance department and with other department.

13. Review effectiveness of assigned repair and maintenance work, enforces regulation and prepares report.
14. Discuss with repair and maintenance executives, subordinates and other parties on repair and maintenance related matters.
15. Perform other duties as assign by superior.

Annex 5

Critical & Non Critical Job Title for Machinery and Equipment Industry Sector

SUMMARY TABLE OF JOB TITLE FOR MALAYSIA MACHINERY AND EQUIPMENT INDUSTRY

NO.	SUBSECTOR/JOB AREA		LEVEL								TOTAL
			L1	L2	L3	L4	L5	L6	L7	L8	
1	POWER GENERATION	Non-Critical	0	0	0	0	0	0	0	0	**0**
		Critical	2	2	1	1	1	0	0	0	**7**
2.1	AGRICULTURE MACHINERY	Non-Critical	0	0	0	0	0	0	0	0	**0**
		Critical	1	1	1	1	1	0	0	0	**5**
2.2	FOOD PROCESSING MACHINERY	Non-Critical	0	8	8	0	0	0	0	0	**16**
		Critical	0	0	0	0	0	0	0	0	**0**
2.3	TIMBER PROCESSING, PULPS AND PAPER PRODUCT	Non-Critical	0	3	3	0	0	0	0	0	**6**
		Critical	0	0	0	0	0	0	0	0	**0**
2.4	PLASTIC PROCESSING	Non-Critical	0	0	0	1	1	1	0	0	**3**
		Critical	5	5	5	0	0	0	0	0	**15**
2.5	MINING MACHINERY	Non-Critical	0	3	3	0	0	0	0	0	**6**
		Critical	0	0	0	0	0	0	0	0	**0**
2.6	INDUSTRIAL AUTOMATION & MECHATRONICS	Non-Critical	0	0	0	0	0	0	0	0	**0**
		Critical	1	1	1	2	2	0	0	0	**7**
3.1	METAL WORKING	Non-Critical	0	0	1	2	2	0	0	0	**5**
		Critical	3	7	9	0	0	0	0	0	**19**
4.1	WATER TREATMENT AND SEWERAGE MACHINERY	Non-Critical	0	2	2	0	0	0	0	0	**4**
		Critical	0	0	0	0	0	0	0	0	**0**
4.2	CRANE OPERATION	Non-Critical	1	3	0	0	0	0	0	0	**4**
		Critical	0	0	0	0	0	0	0	0	**0**
4.3	PRESSURE VESSEL	Non-Critical	0	0	0	0	0	0	0	0	**0**
		Critical	0	2	2	3	3	0	0	0	**10**
4.4	ELEVATOR	Non-Critical	0	0	0	0	0	0	0	0	**0**
		Critical	2	2	2	0	0	0	0	0	**6**
4.5	AIR CONDITIONING INSTALLER	Non-Critical	0	0	0	0	0	0	0	0	**0**
		Critical	1	1	1	0	0	0	0	0	**3**
5.1	MANUFACTURING	Non-Critical	6	6	6	6	5	1	0	0	**30**
		Critical	0	0	0	0	0	0	0	0	**0**
6.1	ASSEMBLING & INSTALLATION	Non-Critical	1	2	4	4	1	1	0	0	**13**
		Critical	0	0	0	0	0	0	0	0	**0**
7.1	OPERATION CONTROL	Non-Critical	2	2	2	2	2	1	0	0	**11**
		Critical	0	0	0	0	0	0	0	0	**0**
8	REPAIR AND MAINTENANCE	Non-Critical	3	3	3	1	1	0	0	0	**11**
		Critical	0	0	0	0	0	0	0	0	**0**
TOTAL JOB TITLE		Total Non-Critical									**109**
		Total Critical									**72**
		Total Job Title	**28**	**53**	**54**	**23**	**19**	**4**	**0**	**0**	**181**

PROPOSED CRITICAL JOB TITLE FOR MACHINERY AND EQUIPMENT INDUSTRY

1) SUB-SECTOR: POWER GENERATING

No.	Job Title	Level
1	Boiler Operator	L1
2	Turbine Operator	L1
3	Boiler Senior Operator	L2
4	Turbine Senior Operator	L2
5	Power Plant Supervisor	L3
6	Power Plant Executive	L4
7	Power Plant Manager	L5

2) SUB-SECTOR: SPECIALISED M & E (AGRICULTURE MACHINERY)

No.	Job Title	Level
1	Harvester Operator	L1
2	Senior Harvester Operator	L2
3	Agricultural Machinery Supervisor	L3
4	Agricultural Machinery Executive	L4
5	Agricultural Machinery Manager	L5

3) SUB-SECTOR: SPECIALISED M & E (PLASTIC PROCESSING)

No.	Job Title	Level
1	Plastic Production Operator - “Injection Moulding”	L1
2	Plastic Production Operator - “Extrusion-Pipe & Profile”	L1
3	Plastic Production Operator - “Rotational Moulding”	L1
4	Plastic Production Operator - “Compression Moulding”	L1
5	Production Operator - “Blow Moulding”	L1
6	Plastic Production Line Leader - “Injection Moulding”	L2
7	Plastic Production Line Leader - “Extrusion-Pipe & Profile”	L2
8	Plastic Production Line Leader - “Rotational Moulding”	L2
9	Plastic Production Line Leader - “Compression Moulding”	L2
10	Production Line Leader - “Blow Moulding”	L2
11	Plastic Production Supervisor - “Injection Moulding”	L3
12	Plastic Production Supervisor - “Extrusion-Pipe & Profile”	L3
13	Plastic Production Supervisor - “Rotational Moulding”	L3
14	Plastic Production Supervisor - “Compression Moulding”	L3
15	Production Supervisor - “Blow Moulding”	L3

4) SUB-SECTOR: SPECIALISED M & E (INDUSTRIAL AUTOMATION & MECHATRONICS)

No.	Job Title	Level
1	Industrial Manufacturing Assistant	L1
2	Industrial Manufacturing Technician	L2
3	Industrial Manufacturing Supervisor	L3
4	Mechatronic Assistant Engineer	L4
5	Assistant Industrial Automation Engineer	L4
6	Mechatronic Engineer	L5
7	Industrial Automation Engineer	L5

5) SUB-SECTOR: METAL WORKING M & E (MOULD AND DIE)

No.	Job Title	Level
1	Pattern/Mould & Core Operator	L1
2	Mould Senior Operator	L2
3	Mould Supervisor	L3

6) SUB-SECTOR: METAL WORKING M & E (METAL CUTTING)

No.	Job Title	Level
1	General Machinist	L1
2	General Machinist - Lathe Turning Operation	L2
3	General Machinist - Milling Operation	L2
4	General Machinist - Grinding Operation	L2
5	CNC Machinist	L2
6	Machinist - Lathe Turning Operation	L3
7	Machinist - Milling Operation	L3
8	Machinist - Grinding Operation	L3
9	'Computer Numerical Control' (CNC) Technician	L3

7) SUB-SECTOR: METAL WORKING M & E (SHEET METAL WORKING)

No.	Job Title	Level
1	Sheet Metal Fabricator	L1
2	Sheet Metal Technician	L2
3	Sheet Metal Senior Technician	L3

8) SUB-SECTOR: GENERAL INDUSTRIAL M & E (PRESSURE VESSEL)

No.	Job Title	Level
1	Welder	L2
2	Fitters	L2
3	Senior Welder	L3
4	Senior Fitters	L3
5	Pressure Vessel Junior Inspector	L4
6	Pressure Vessel Assistant Engineer	L4
7	Pressure Vessel Assistant Design Engineer	L4
8	Pressure Vessel Inspector	L5
9	Pressure Vessel Engineer	L5
10	Pressure Vessel Design Engineer	L5

9) SUB-SECTOR: GENERAL INDUSTRIAL M & E (ELAVATOR)

No.	Job Title	Level
1	Elevator Repairer Helper	L1
2	Elevator Installation Helper	L1
3	Elevator Repairer	L2
4	Elevator Installer	L2
5	Elevator Examiner And Adjuster	L3
6	Elevator Installation Supervisor	L3

10) SUB-SECTOR: GENERAL INDUSTRIAL M & E (AIRCOND INSTALLER)

No.	Job Title	Level
1	Air Conditioning Installer	L1
2	Air Conditioning Tester	L2
3	Air Conditioning Installer Supervisor	L3

PROPOSED NON CRITICAL JOB TITLE FOR MACHINERY AND EQUIPMENT INDUSTRY

1) SUB-SECTOR: SPECIALISED M&E (FOOD PROCESSING M&E)

No.	Job Title	Level
1	Dairy Plant Leader	L2
2	Fish and Meat Plant Leader	L2
3	Bakery Plant Leader	L2
4	Beverage Plant Leader	L2
5	Sugar Processing Plant Leader	L2
6	Herbal Plant Leader	L2
7	Flour, Rice Plant Leader	L2
8	Tobacco Processing Plant Leader	L2
9	Dairy Plant Supervisor	L3
10	Fish and Meat Plant Supervisor	L3

No.	Job Title	Level
11	Bakery Plant Supervisor	L3
12	Beverage Plant Supervisor	L3
13	Sugar Processing Plant Supervisor	L3
14	Herbal Plant Supervisor	L3
15	Flour, Rice Plant Supervisor	L3
16	Tobacco Plant Supervisor	L3

2) SUB-SECTOR: SPECIALISED M&E (WOOD WORKING M&E)

No.	Job Title	Level
1	Timber Plant Leader	L2
2	Pulp Plant Leader	L2
3	Paper Plant Leader	L2
4	Timber Plant Supervisor	L3
5	Pulp Plant Supervisor	L3
6	Paper Plant Supervisor	L3

3) SUB-SECTOR: SPECIALISED M&E (PLASTIC PROCESSING M&E)

No.	Job Title	Level
1	Assistant Plastic Production Manager	L4
2	Plastic Production Manager	L5
3	Plastic Plant Senior Manager	L6

4) SUB-SECTOR: SPECIALISED M&E (MINING M&E)

No.	Job Title	Level
1	Dredging Operator	L2
2	Mining Operator	L2
3	Smelting Operator	L2
4	Dredging Supervisor	L3
5	Mining Supervisor	L3
6	Smelting Supervisor	L3

5) SUB-SECTOR: METAL WORKING M&E (FOUNDRY, METAL CUTTING & SHEET METAL WORKING)

No.	Job Title	Level
1	Machinist EDM Wirecut	L3
2	Mould Executive	L4
3	Assist. Manufacturing Engineer (CAD/CAM/CAE)	L4
4	Foundry Manager	L5
5	Manufacturing Engineer (CAD/CAM/CAE)	L5

6) SUB-SECTOR: GENERAL INDUSTRIAL M&E (WATER TREATMENT & SEWERAGE MACHINERY)

No.	Job Title	Level
1	Water Treatment Plant Operator	L2
2	Sewerage Plant Operator	L2
3	Water Treatment Plant Supervisor	L3
4	Sewerage Plant Supervisor	L3

7) SUB-SECTOR: GENERAL INDUSTRIAL M&E (HOIST CRANE, STRADDLE CARRIER, RUBBER TYRE GANTRY)

No.	Job Title	Level
1	Terminal Operator (Front End Loader & Reach Stacker)	L1
2	Senior Hoist Crane Operator	L2
3	Senior Straddle Carrier Crane Operator	L2
4	Senior Rubber Tyre Gantry Crane Operator	L2

8) SUB-SECTOR: MANUFACTURING (R&D, DESIGNING, INDUSTRIAL PRODUCT DESIGN, FABRICATION, PRODUCTION, TESTING, LOGISTIC)

No.	Job Title	Level
1	Draughtsman	L1
2	Fabrication Operator	L1
3	Production Operator	L1
4	Laboratory Assistant	L1
5	Logistic Operator	L1
6	Senior Draughtsman	L2
7	Industrial Product Design Technician	L2
8	Fabrication Technician	L2
9	Production Senior Operator	L2
10	Laboratory Technician	L2

No.	Job Title	Level
11	Logistic Senior Operator	L2
12	Assistant Researcher	L3
13	Assistant Designer	L3
14	Industrial Product Design Senior Technician	L3
15	Fabrication Supervisor	L3
16	Production Supervisor	L3
17	Laboratory Senior Technician	L3
18	Logistic Supervisor	L3
19	Researcher	L4
20	Designer	L4
21	Fabrication Executive	L4
22	Production Executive	L4
23	Analyst	L4
24	Logistic Executive	L4
25	R&D and Design Manager	L5
26	Fabrication Manager	L5
27	Production Manager	L5
28	Quality Manager	L5
29	Logistic Manager	L5
30	Plant Senior Manager	L6

9) SUB-SECTOR: ASSEMBLING & INSTALLATION (FITTING, ASSEMBLING, TESTING & COMMISSIONING)

No.	Job Title	Level
1	Fitter	L1
2	Senior Fitter	L2
3	Fitting Foreman	L3
4	Commissioning Assistant Specialist	L3
5	Fitting Executive	L4
6	Commissioning Specialist	L4
7	Assembling & Installation Manager	L5
8	Plant Senior Manager	L6

10) SUB-SECTOR: OPERATION CONTROL (QUALITY ASSURANCE, SUPPLY CHAIN)

No.	Job Title	Level
1	Quality Inspector	L1
2	Store Keeper	L1
3	Quality Senior Inspector	L2
4	Senior Store Keeper	L2
5	Quality Supervisor	L3
6	Purchasing Supervisor	L3

No.	Job Title	Level
7	Quality Executive	L4
8	Purchasing Executive	L4
9	Quality Manager	L5
10	Purchasing Manager	L5
11	Plant Senior Manager	L6

11) SUB-SECTOR: REPAIR & MAINTENANCE (MECHANICAL, ELECTRICAL, INSTRUMENTATION)

No.	Job Title	Level
1	Mechanics - Mechanical	L1
2	Junior Electrical Technician	L1
3	Mechanical Precision Instrument Operator	L1
4	Senior Mechanic - Mechanical	L2
5	Electrical Technician	L2
6	Mechanical Precision Instrument Technician	L2
7	Supervisor - Mechanical	L3
8	Senior Electrical Technician	L3
9	Senior Mechanical Precision Instrument Technician	L3
10	Repair and Maintenance Executive	L4
11	Repair and Maintenance Manager	L5