

STANDARD KEMAHIRAN PEKERJAAN KEBANGSAAN (NATIONAL OCCUPATIONAL SKILLS STANDARD)

HEALTHCARE LAUNDRY OPERATION SUPERVISION

LEVEL 3



Jabatan Pembangunan Kemahiran Kementerian Sumber Manusia, Malaysia



Department of Skills Development (DSD) Ministry of Human Resources 62530 PUTRAJAYA, MALAYSIA

STANDARD KEMAHIRAN PEKERJAAN KEBANGSAAN (NATIONAL OCCUPATIONAL SKILLS STANDARD)

FOR

HEALTHCARE LAUNDRY OPERATION SUPERVISION LEVEL 3

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ABBREVIATIONS

AS / NZS Australia and New Zealand Standard on Laundry Processing

BEMS Biomedical Engineering Maintenance Services

CLS Cleansing Services

CWMS Clinical Waste Management Services

DOE Department Of Environment

FEMS Facility Engineering Maintenance Services

HSS Hospital Support Services

JCI Joint Commission International

LLS Linen and Laundry Services

MSQH Malaysian Society for Quality in Health

PPE Personal Protective Equipment

SOP Standard Operation Procedure

TRSA Textile Rental Services Association of America

VOC Volatile Organic Compounds

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STANDARD PRACTICE

NATIONAL OCCUPATIONAL SKILLS STANDARD (NOSS) FOR HEALTHCARE LAUNDRY OPERATION SUPERVISION LEVEL 3

1. INTRODUCTION

The cleaning industry provides several different services. Business in this large industry mostly fit into one of these areas: cleaning & janitorial services and laundry services, which include healthcare laundry services, retail laundry services and commercial laundry services.

In this modern era, healthcare is perceived as an organisation that administrates the field relating to leadership, management, and administration of hospitals, hospital networks and healthcare systems. However, the present system of facilities management in the Healthcare industry today leads to a systematic, competitive and patient oriented types of governances that focus and devoted to the care and maintenance of the hospital engineering systems, either soft or hard, to ensure the facilities and its assets are in a good condition. Furthermore, healthcare support and core activities should be well-defined and in tandem with the healthcare strategic contexts.

Privatisation of healthcare support services is the most successful outsourcing activities in the Malaysian healthcare system. The main agendas of privatisation are to differentiate and perform the non-core support activities such as maintenance of engineering assets and facilities and to essentially support the main focus of Healthcare functions.

Malaysia started its privatisation of healthcare support services since in 1997, to allow the medical practitioners to devote their full commitment on the core functions which on the patient care and medical activities. Hence, the practice is able to increase the efficiency of clinical services and retains its own qualified and experienced expertise. The outsourced five non-core hospital support services are namely Biomedical Engineering Maintenance Services (BEMS), Facility Engineering Maintenance Services (FEMS), Linen and Laundry Services (LLS), Cleansing Services (CLS) and Clinical Waste Management Services (CWMS). Effective 1st April 2015, the Malaysian government has appointed five main concessionaires to manage public hospital's Hospital Support Services (HSS) for 148 government hospitals.

The five main concessionaires are Edgenta Mediserve Sdn Bhd, Radicare (M) Sdn Bhd, Medivest Sdn Bhd, Sedafiat Sdn Bhd and One Medicare Sdn Bhd. These five companies are presently providing HSS for all government hospitals and clinics in Malaysia and selected number of private healthcare companies.

Linen & Laundry Management Services is one of the hospital support services under the Hospitals Privatisation Project. The demand has increased gradually for the past 17 years from 2,900 tons of clean linen in 1997 to 58,200 tons in 2013 and the fee paid by the government for the services at 122 hospitals in 1997 had increased from RM11.5 million to RM222.6 million for 140 hospitals in 2013 (Kejuruteraan, B.P., 2014). The services are devoted to washing, delivering and collection of linen according to the agreed frequencies, schedules and routes from the laundry facilities to the end user in order to achieve an adequate, clean and constant supply of linen for hospital usage.

The main activities in linen service are devoted to the delivery of good clean linen and collection of soiled linen to and from ward or user location in accordance to the predetermined schedules, frequencies and routes. Typical linen operation process flow in the public healthcare is depicted in Figure 1. Good quality linen refers to hygienically clean and meeting standard (size, type, material and colour) as set by the Ministry of Health. New linen need to be purchased constantly to replace condemned linen, losses and increased in demand to ensure adequacy in the hospitals. Tools and equipment such as laundry bags, trolleys and bag holders for the purpose of collection and delivery activities need to be adequately available. Linen service is also responsible for the maintenance and management of related stores to ensure they are clean, well ventilated; adequate stacking racks and has a proper inventory system.

Laundry service is an interdependency process with linen service, responsible in providing an adequate, clean and constant supply of linen for hospital usage. The healthcare laundry consists of delicate and controlled process to serve its purpose which includes sorting, washing, extracting, drying, ironing, folding, mending and delivering, and ensuring hygienic precautions are maintained in the process.

The laundries are regulated by the Ministry of Health and shall adhere to several legislations and specific requirements including the related environmental aspects. Malaysian Society for Quality in Health (MSQH) guidelines, Australia and New Zealand Standard on Laundry Processing (AS/NZS 4146:2000), Textile Rental Services Association of America (TRSA), Joint Commission International (JCI) Standards are amongst the standards adopted by the Malaysian public healthcare laundry system.

Soiled linen from healthcare industry is classified as clinical soiled and must be treated in a hygienic manner to avoid cross infection during transportation, handling and washing process. Healthcare soiled linen is washed according to the types and degree of soiled, material and colour, and each types of category has its own pre-set washing programme. Hot water, chemicals such as alkaline builder, detergent, bleaches, disinfectant and softener are commonly used to facilitate in removal of soil and at the same assist in microbial kill.

Linen and laundry services in nature are risky activities. Hence, occupational health and safety play important role to curb and minimise incidents and accidents. There is an established health and safety programmes such as education programme to educate people on the danger of soiled linen, cross infection, lint, laundry wastes and proper handling of related laundry tools and equipment. Medical check-up and immunisation programmes are mandatory to be given to the linen and laundry workers

in addition to the Personal Protective Equipment (PPE) such as safety glasses, face masks, respirators, gloves and safety boots.

Procedures adhered in the healthcare laundry are related to process flow of the laundry activities to minimise incident and accident particularly on cross infections and to protect the environment. The availability of contingency plan in case of emergency is perceived as important towards a continual supply of linen to the hospitals.

The wastewater generated from laundry facility is hazardous in nature as it contains lint, grit, emulsified oil, grease, heavy metals and Volatile Organic Compounds (VOC) and require further treatments prior to its release into the streams in compliance to the schedule waste A or B requirements regulated by Environmental Quality Act 1974.

REFERENCES

- Aini Jaapar, Ramlan Dahlan and Nor Azmi Ahmad Bari, Healthcare Facilities Management: A Case Study on Privatisation of Linen and Laundry Management Services in Malaysian Public Healthcare System. Aust. J. Basic & Appl. Sci., 9(7): 129- 132, 2015
- 2. Kejuruteraan, B.P., 2014 "Privatisation Hospital Support Services (HSS) Current contract," in Konvensyen Strategik Pengurusan Aset Kerajaan (KONSPAK 2014).

2. OCCUPATIONAL STRUCTURE

SECTOR	HOSPITALITY AND TOURISM					
SUB SECTOR		HOUS	EKEEPING			
AREA	HEALTHCARE LAUNDRY SERVICES (PLANT OPERATION)	LAUNDRY SERVICES (COMMERCIAL LAUNDRY SERVICES)				
LEVEL 5	PLANT MANAGER	FACILITY MANAGER	RETAIL LAUNDRY MANAGER	COMMERCIAL LAUNDRY MANAGER		
LEVEL 4	PLANT ASSISTANT MANAGER	ASSISTANT FACILITY MANAGER	RETAIL LAUNDRY ASSISTANT MANAGER	COMMERCIAL LAUNDRY ASSISTANT MANAGER		
LEVEL 3	PLANT SUPERVISOR	LINEN SUPERVISOR	RETAIL LAUNDRY SUPERVISOR	COMMERCIAL LAUNDRY SUPERVISOR		
LEVEL 2	LINE LEADER / SECTION LEADER	SENIOR LINEN ATTENDANCE	RETAIL LAUNDRY ATTENDANT	COMMERCIAL LAUNDRY ASSISTANT SUPERVISOR		
LEVEL 1	HEALTHCARE LAUNDRY OPERATOR	LINEN ATTENDANT	NO LEVEL	COMMERCIAL LAUNDRY ATTENDANT		

Fig. 1.1 Occupational Structure for Healthcare Laundry Services in Malaysia

Occupational Area Structure

SECTOR	HOSPITALITY AND TOURISM							
SUB SECTOR		HOUSEKEEPING						
AREA	HEALTHCARE LAUNDRY SERVICES (PLANT OPERATION)	HEALTHCARE LAUNDRY SERVICES (LINEN SERVICES)	LAUNDRY SERVICES (RETAIL LAUNDRY SERVICES)	LAUNDRY SERVICES (COMMERCIAL LAUNDRY SERVICES)				
LEVEL 5	HEALTHCARE LAUNDRY PLANT OPERATION MANAGEMENT	LINEN OPERATION MANAGEMENT	RETAIL LAUNDRY OPERATION MANAGEMENT	COMMERCIAL LAUNDRY OPERATION MANAGEMENT				
LEVEL 4	PLANT OPERATION LINEN OPERATION OPERAT		COMMERCIAL LAUNDRY OPERATION ADMINISTRATION					
LEVEL 3	HEALTHCARE LAUNDRY LINEN OPERATION RETAIL AND COMMERCIAL LAUNDRY OPERATION SEPERVISION SEPERVISION							
LEVEL 2	HEALTHCARE LAUNDRY OPERATION SERVICES RETAIL AND COMMERCIAL LAUNDRY OPERATION			AL LAUNDRY OPERATION				
LEVEL 1	EMBEDDED TO LEVEL 2	EMBEDDED TO LEVEL 2	NO LEVEL	EMBEDDED TO LEVEL 2				

Fig. 1.2 Occupational Area Structure (OAS) for Healthcare Laundry Services in Malaysia

3. DEFINITION OF COMPETENCY LEVELS

The NOSS is developed for various occupational areas. Candidates for certification must be assessed and trained at certain levels to substantiate competencies. Below is a guideline of each NOSS Level as defined by the Department of Skills Development, Ministry of Human Resources, Malaysia.

Level 1:

(Operation Level)

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

Level 2:

(Operation Level)

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

Level 3:

(Supervisory Level)

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

Level 4:

(Executive Level)

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.

Level 5:

(Managerial Level)

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 features strongly, as do personal accountabilities for analysis, diagnosis, planning, execution and evaluation.

4. AWARD OF CERTIFICATE

The Director General shall award, to any person upon completing successfully the NOSS program, the following skills level qualifications:

- a) Malaysia Skills Certificate / Sijil Kemahiran Malaysia (SKM) Level 1, 2 & 3
- b) Malaysia Skills Diploma / Diploma Kemahiran Malaysia (DKM) Level 4
- c) Malaysia Skills Advanced Diploma / Diploma Lanjutan Kemahiran Malaysia (DLKM) Level 5
- d) Statement of Achievement / Penyata Pencapaian (PC)

No person shall be awarded a Certificate unless he / she satisfies the requirements set by Malaysia Skills Certification System.

5. JOB COMPETENCIES

A HealthCare Laundry Operation Supervision (Level 3) personnel is competent in performing:

- Linen Collection And Delivery
- Laundry Operation Control
- Laundry Quality Control
- Laundry Administrative Function

6. WORKING CONDITIONS

Generally a healthcare laundry operation supervision (Level 3) personnel work in normal working hours from morning to evening depending on organisation nature of business. They may require to work extra hours to fulfil internal and external requirements. They also may be needed to work in shift to accommodate work requirements. All personnel need to undergo immunisation & vaccination and use/wear appropriate attire (Personal Protective Equipment) during the commencement of their jobs. They may work individually or group in a conducive and ventilated environment.

7. EMPLOYMENT PROSPECTS

The employment prospects for healthcare laundry personnel are very huge. The industry has shortage of skilled healthcare laundry operation supervision (Level 3) personnel. They may be employed at healthcare laundry services organisations, nursing care facilities, dry cleaning & laundry services outlet and accommodation providers.

8. CAREER ADVANCEMENT

To become healthcare laundry operation supervision (Level 3) personnel, one must first gain knowledge and competency as a healthcare laundry supervisor through structured training or on-the job training. Employers may require a high school certificate or skills certificate for healthcare laundry supervisor position. After these personnel have gained experience and becomes highly skilled and knowledgeable, he or she may be eligible for a promotion to become a plant assistant manager. The amount of time to be promoted depends on a number of variables, including the availability of a job opening and the competitive nature between workers for the leadership role. He or she is likely to succeed if he or she understands business management practices along with having a good technical ability.

9. SOURCES OF ADDITIONAL INFORMATION

LOCAL

Kementerian Kesihatan Malaysia (KKM)
 Bahagian Perkhidmatan Kejuruteraan (BPK)
 Aras 3 – 7, Blok E3, Parcel E, Presint 1
 Pusat Pentadbiran Kerajaan Persekutuan
 62590 Putrajaya

Tel : 03 – 8000 8000 Fax : 03 – 8888 6187

Website: http://www.moh.gov.my

ii. Malaysian Society for Quality in Health (MSQH)

B.6-1, Level 6, Wisma Sejarah

230 Jalan Tun Razak 50400 Kuala Lumpur

Tel : 03 – 2682 2232 Fax : 03 – 2681 3199

Website: http://www.msqh.com.my/msqh/

iii. Selangor & Kuala Lumpur Laundry Association

544A, Jalan Riang 11, Taman Gembira

Off Jalan Kucai Lama 58200 Kuala Lumpur

Tel : 03 – 7981 5767 Fax : 03 – 7982 7435

Website: http://laundryasso.com

INTERNATIONAL

- i. Australian Healthcare Laundry & Linen Services Association
- ii. Joint Commission International (JCI)
- iii. Textile Rental Services Association of America (TRSA)

10. ACKNOWLEDGEMENT

The Director General of DSD would like to extend his gratitude to the organisations and individuals who have been involved in developing this standard; especially members of Standard Technical Evaluation Committee (STEC) for validating this document.

	STANDARD TECHNICAL EVALUATION COMMITTEE (STEC)						
1. En. Mohd Yazid bin Kuman En. Mohd Yazid bin Kuman Ketua Penolong Pengarah Kanan (Operasi Hospital) Bahagian Perkhidmatan Kejuruteraar Kementerian Kesihatan Malaysia							
2.	En. Sahrizal bin Salleh	Pengurus Operasi Medilaund (M) Sdn Bhd					
3.	En. Ramlan bin Dahlan	Juru Perunding Kanan Sistem Hospital Awasan Taraf Sdn Bhd					

11. NOSS DEVELOPMENT COMMITTEE MEMBERS

HEALTHCARE LAUNDRY OPERATION SUPERVISION – LEVEL 3

	PANEL EXPERT					
1.	En. Azlan bin Akbar	Director of Business Development Abatag Resources				
2.	Pn. Azizah binti Mohd Radzi	Operation Manager Creative Pearl (M) Sdn Bhd				
3.	Cik Hami Elmi binti Hussin	Executive Officer MutualPro Team Services (M) sdn Bhd				
4.	En. Norazmi bin Mat Amin	Operation Executive Medilaund (M) Sdn Bhd				
5.	En. Raja Jaafar bin Raja Ismail	Finance Manager RJ Solution Management Services				
6.	Pn. Chik Nor binti Mohamad Rajaludin	Supervisor Faber Mediserve Sdn Bhd				
7.	Pn. Noraini binti Abdullah	Supervisor Faber Mediserve Sdn Bhd				
8.	En. Mohd Shobhi bin Mustakim	Managing Director Rosby Resources Sdn Bhd				
9.	Cik Siti Nurhidayah binti Mohd Shobhi	Operation Executive Abatag Resources				
10.	En. Shahridan Mohamad Rosni	Technical Support Service Manager Radicare (M) Sdn Bhd				
	FACILITATOR					
1.	YM Engku Mohd Azmi bin Dato' Engku Hatim	Total Oracle Sdn Bhd				

COMPETENCY PROFILE CHART (CPC)

SECTOR	HOSPITALITY AND TOURISM			
SUB SECTOR	HOUSEKEEPING			
JOB AREA	HEALTHCARE LAUNDRY SERVICES (PLANT OPERATION)			
NOSS TITLE	HEALTHCARE LAUNDRY OPERATION SUPERVISION			
JOB LEVEL	THREE (3) NOSS CODE HT-054-3:2016			

COMPETENCY	← COMPETENCY UNIT ─────					
CORE	LINEN COLLECTION AND DELIVERY	LAUNDRY OPERATION CONTROL	LAUNDRY QUALITY CONTROL	LAUNDRY ADMINISTRATIVE FUNCTION		
	HT-054-3:2016-C01	HT-054-3:2016-C02	HT-054-3:2016-C03	HT-054-3:2016-C04		

COMPETENCY PROFILE (CP)

SECTOR	HOSPITALI	HOSPITALITY AND TOURISM					
SUB SECTOR	HOUSEKEEPING						
JOB AREA	HEALTHCA	RE LAUNDRY SERVICES (PLANT	OPERATION)				
NOSS TITLE	HEALTHCA	RE LAUNDRY OPERATION SUPE	RVISION				
LEVEL	THREE (3)		NOSS CODE	HT-054-3:2016			
CU Title	CU Code	CU Descriptor	CU Work A	Activities	Performance Criteria		
Linen Collection And Delivery	HT-054- 3:2016- C01	Linen collection and delivery is a process in laundry operation planning from the collection until the handing over of cleaned linen to customer. Competent personnel shall be able to coordinate customer's linen collection (customer collection area), receive customer's linen at loading bay (plant), arrange transportation for cleaning and sanitized and coordinate customer's linen delivery according to company's Standard Operating Procedures (SOP). Efficiency in linen collection and delivery process will translate into company efficiency and business growth.	Coordinate custom (customer collection) Receive customer's bay (plant)	n area)	1.1 Customer details such as location, load size requirements for transportation, driver schedule determined according to customer's collection schedule and company's Standard Operating Procedure (SOP) 1.2 Customer's linen collection arranged according to customer details 2.1 Collection note and other related documents checked according to customer's collection schedule 2.2 Physical checking arranged and documentation compared according to customer's collection forms 2.3 Accuracy of quantity against		

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
				documentation confirmed and verified according to company's Standard Operating Procedure (SOP) 2.4 Any abnormalities item identified and conveyed to superior on abnormalities item (if any) according to company's Standard Operating Procedure (SOP) 2.5 Soiled linen arranged for segregation process according to company Standard Operating Procedure (SOP)
			Arrange transportation for cleaning and sanitization	3.1 Cleaning and sanitising requirements determined according to company's Standard Operating Procedure (SOP) 3.2 Transportation cleanliness and sanitising procedures checked and confirmed according to company's Standard Operating Procedures
			4. Coordinate customer's linen delivery	4.1 Customer details such as location, load size requirements for transportation, driver schedule determined

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
				according to customer's delivery schedule and company's Standard Operating Procedures 4.2 Delivery form and other related document checked according to delivery schedule 4.3 Physical checking arranged and documentation compared according to customer's delivery form 4.4 Accuracy of quantity against documentation confirmed and verified according to company's Standard Operating Procedure (SOP) 4.5 Customer's linen for loading and delivery arranged according to customer details 4.6 All documentation collected after customer's linen delivery according to company's Standard Operating Procedure (SOP)

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
2. Laundry Operation Control	HT-054- 3:2016- C02	Laundry operation control is a process of monitoring and supervising laundry operation efficiency. Competent personnel shall be able to monitor laundry operation efficiency, carry out inventory counting, coordinate laundry equipment maintenance and prepare production report according to company's Standard Operating Procedures (SOP). Efficiency in laundry operation control will ensure laundry operation meets the determined timeline, regulatory compliance and maximising company profit.	Monitor laundry operation efficiency	 1.1 Laundry operation planning and other related information such as number of clients, plant capacity, turnaround time, approved manpower headcount, operation method, client's linen par level and client's complaint obtained and interpreted according to company's Standard Operating Procedures (SOP) 1.2 Machine efficiency such as machine capacity, condition and downtime checked according to maintenance department guidelines 1.3 Manpower efficiency such as manpower performance and discipline checked according to human resource department guidelines
			2. Carry out inventory counting	2.1 Laundry inventory items such as linen, laundry consumables and others determined according to laundry inventory record 2.2 Stock take or inventory counting process date determined according to inventory counting schedule 2.3 Staff involvement in

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
				inventory counting determined according to work schedule 2.4 Inventory counting process monitored and inventory counting data collected according to company's Standard Operating Procedures (SOP) 2.5 Cause of variance in inventory counting checked and inventory findings reported according to company's Standard Operating Procedures (SOP) 2.6 Replenishment requisition prepared and submitted to superior according to company's Standard Operating Procedures (SOP)
			Coordinate laundry equipment maintenance	3.1 Laundry equipment maintenance arranged according to equipment schedule maintenance and company's Standard Operating Procedures (SOP) 3.2 Laundry equipment faulty repair works coordinated according to maintenance department guidelines 3.3 Laundry equipment maintenance report updated and verified according to

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
				maintenance department guidelines
			4. Prepare production report	 4.1 Production reporting period determined according to company's Standard Operating Procedures (SOP) 4.2 Production report period updated according to company's Standard Operating Procedures (SOP) 4.3 Laundry production report prepared, summarized and submitted to superior according to company's Standard Operating Procedures (SOP) Procedures (SOP)
	_			

CU Title	CU Code	CU Descriptor		CU Work Activities	Performance Criteria
3. Laundry Quality Control	HT-054- 3:2016- C03	Laundry quality control describes the monitoring of overall operation activities that involves all factors of quality during the laundry operation. Competent personnel shall be able to carry out linen segregation quality control, carry out laundry washing quality control, carry out laundry drying quality control, carry out laundry ironing quality control, carry out laundry folding quality control, carry out laundry packaging quality control and coordinate standard HealthCare laundry compliance test according to company's Standard Operating Procedures (SOP), MSQH Standard and AS NZS 4146-2000. Efficiency in laundry quality control will ensure the entire process takes place with the proper counter check and monitoring.		Carry out linen segregation quality control	 1.1 Laundry segregation quality control criteria such as colour, fabric types, linen items, degree of soil and customer's collection schedule identified according to company's Standard Operating Procedures (SOP) / MSQH Standard / AS NZS 4146-2000 1.2 Laundry segregation process monitored according to company's Standard Operating Procedures (SOP) / MSQH Standard / AS NZS 4146-2000 1.3 Visual checking on correctness of segregation and foreign items conducted according to company's Standard Operating Procedures (SOP) / MSQH Standard / AS NZS 4146-2000 1.4 Staff instructed to rectify mixing of linen segregation according to company's Standard Operating Procedures (SOP) 1.4 Staff instructed to rectify mixing of linen segregation according to company's Standard Operating Procedures (SOP)
			2.	Carry out linen washing quality control	2.1 Linen washing quality control criteria such as cleanliness level and reject level

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
				identified according to company's Standard Operating Procedures (SOP) / MSQH Standard / AS NZS 4146-2000 2.2 Linen washing process such as machine selection, linen loading capacity and washing program selection monitored according to company's Standard Operating Procedures (SOP) / MSQH Standard / AS NZS 4146-2000 2.3 Visual checking after wash conducted according to company's Standard Operating Procedures (SOP) / MSQH Standard / AS NZS 4146-2000 2.4 Staff instructed to rectify rejected linen according to company's Standard Operating Procedures (SOP)
			3. Carry out linen drying quality control	3.1 Linen drying quality control criteria such as dryness level cleanliness level and reject level identified according to company's Standard Operating Procedures (SOP), MSQH Standard and AS NZS 4146-2000 3.2 Linen drying process such

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
				as machine selection, linen loading capacity and drying program selection monitored according to company's Standard Operating Procedures (SOP), MSQH Standard and AS NZS 4146-2000 3.3 Visual checking after drying conducted according to company's Standard Operating Procedures (SOP), MSQH Standard and AS NZS 4146-2000 3.4 Staff instructed to rectify unclean and un-dry linen according to company's Standard Operating Procedures (SOP)
			4. Carry out linen ironing quality control	4.1 Linen ironing quality control criteria such as ironing finishing quality, dryness level, cleanliness level and reject level identified according to company's Standard Operating Procedures (SOP) 4.2 Linen ironing process such as machine selection and ironing program selection monitored according to company's Standard Operating Procedures (SOP)

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
				4.3 Visual checking after ironing conducted according to company's Standard Operating Procedures (SOP) 4.4 Staff instructed to rectify rejected, un-dry and crumple linen according to company's Standard Operating Procedures (SOP)
			5. Carry out linen folding quality control	 5.1 Linen folding quality control criteria such as ironing finishing quality, dryness level, cleanliness level and reject level identified according to company's Standard Operating Procedures (SOP) 5.2 Linen folding process such as machine selection and ironing program selection monitored according to company's Standard Operating Procedures (SOP) 5.3 Visual checking after ironing conducted according to company's Standard Operating Procedures (SOP) 5.4 Staff instructed to rectify rejected, un-dry and crumple linen according to company's Standard Operating Procedures (SOP) 5.4 Staff instructed to rectify rejected, un-dry and crumple linen according to company's Standard Operating Procedures (SOP)

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
			6. Carry out linen packaging quality control	 6.1 Linen packaging quality control criteria such as packaging finishing quality, cleanliness level and reject level identified according to company's Standard Operating Procedures (SOP) 6.2 Linen packaging process such as machine selection and client's labelling monitored according to company's Standard Operating Procedures (SOP) 6.3 Visual checking after packaging conducted according to company's Standard Operating Procedures (SOP) 6.4 Staff instructed to rectify rejected and non compliance packaging requirements according to company's Standard Operating Procedures (SOP) 6.4 Staff instructed to rectify rejected and non compliance packaging requirements according to company's Standard Operating Procedures (SOP)
			7. Coordinate standard HealthCare laundry compliance test	7.1 Types of standard HealthCare laundry operation test such as pH test final rinse water, pathological test on finished linen and whiteness test (white linen only) determined according to company's

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
				Standard Operating Procedures (SOP), MSQH Standard and AS NZS 4146- 2000 7.2 Test requirement details such as parties involved, test schedule and frequency and item determined according to company's Standard Operating Procedures (SOP), MSQH Standard and AS NZS 4146-2000 7.3 HealthCare laundry compliance test arranged according to company's Standard Operating Procedures (SOP) 7.4 HealthCare compliance results compiled and submitted to superior or related department according to company's Standard Operating Procedures (SOP)

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
4. Laundry Administrative Function	HT-054- 3:2016- C04	Laundry administrative function describes the monitoring and coordination of overall administration activities. Competent personnel shall be able to prepare work schedule, coordinate manpower requirements, monitor staff performance and coordinate staff training according to company's Standard Operating Procedures (SOP). Efficiency in laundry administrative function will ensure the overall smoothness of the laundry service operation.	1. Prepare work schedule	 1.1 Production planning determined according to company forecast production report 1.2 Work schedule format determined according to human resource guidelines 1.3 Manpower capacity and resources determined according to laundry production planning and human resource guidelines 1.4 Work schedule produced and job tasking assigned according to laundry production planning and human resource guidelines 1.5 Briefing conducted according to company's Standard Operating Procedure (SOP)
			2. Coordinate manpower requirements	 2.1 Manpower requirements determined according to laundry production planning and human resource guidelines 2.2 Workload assigned against current manpower headcount assessed according to laundry production planning 2.3 Additional manpower headcount requested to

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
				superior according to company's Standard Operating Procedure (SOP) and human resource guidelines
			3. Monitor staff performance	3.1 Staff performance report format determined according to company's Standard Operating Procedures (SOP) and human resource guidelines 3.2 Standard performance guidelines interpreted and actual staff performance & productivity observed according to company's Standard Operating Procedures (SOP) 3.3 Staff performance report prepared according to company's Standard Operating Procedures (SOP) and human resource guidelines
			4. Coordinate staff training	 4.1 Training schedule obtained according to Human Resources (HR) department and or training guidelines 4.2 Staff training coordinated according to training details 4.3 Training facilities for in-

CU Title	CU Code	CU Descriptor	CU Work Activities	Performance Criteria
				house training arranged according to training modules

CURRICULUM of COMPETENCY UNIT (CoCU)

SECTOR		HOSPITA	HOSPITALITY AND TOURISM						
SUB SECTOR		HOUSEKI	HOUSEKEEPING						
JOB AREA		HEALTHO	CARE LAUND	RY SERVICES	S (PLANT (OPERATION)			
NOSS TITLE		HEALTHO	CARE LAUND	RY OPERATION	ON SUPER	VISION			
COMPETENCY UNIT	T TITLE	LINEN CO	DLLECTION A	AND DELIVER	Y				
LEARNING OUTCO		The person who is competent in this competency unit shall be able to handle linen collection and delivery efficiency upon completion of this competency unit, trainees will be able to: Coordinate customer's linen collection (customer collection area) Receive customer's linen at loading bay (plant) Arrange transportation for cleaning and sanitization Coordinate customer's linen delivery					nd delivery efficiently.		
PRE-REQUISITE (if	applicable)					TRAINING		SKILL	
COMPETENCY UNIT	T ID	HT-054-3	3:2016-C01	LEVEL	3	DURATION	240	CREDIT	24
Work Activities	Related Know	wledge	Related Skills			ıde/Safety/ ronmental	Training Hours	Delivery Mode	Assessment Criteria
Coordinate customer's linen collection (customer collection area)	i. Linen collection delivery plan	r location e ents for ation hedule ntation -	details	ne customer customer 's lection	coord custor collect collect <u>Safety:</u> i. Comp	ulous in inating mer's linen ition (customer ition area) oly with safety rements	Related Knowledge 18 Related Skills 42	Related Knowledge Lecture / Group Discussion / Video Related Skills Demonstration / Role Play	i. Linen collection and delivery planning listed out and explained ii. Arrangement of customer's linen collection demonstrated

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
Receive customer's linen at loading bay (plant)	i. Types and purpose of forms: Reject form Receiving / collection soiled form ii. Purpose of arranging physical checking and compare with documentation iii. Verification on accuracy of quantity against documentation iv. Identification of any abnormal items v. Arrangement of soiled linen for segregation process	 i. Check collection form and other related documents ii. Arrange physical checking and compare with documentation iii. Verify accuracy of quantity against documentation iv. Identify any abnormal items v. Inform superior on abnormal items (if any) vi. Arrange soiled linen for segregation process 	Attitude: i. Systematic and well-organized in receiving customer's linen at loading bay (plant) Safety: i. Comply with safety requirements	Related Knowledge 18 Related Skills 42	Related Knowledge Lecture / Group Discussion / Video Related Skills Demonstration / Role Play	i. Types and purpose of forms listed out and explained ii. Purpose of arranging physical checking and comparison with documentation listed out and explained iii. Verification on accuracy of quantity against documentation demonstrated iv. Identification of any abnormal items listed out and explained v. Arrangement of soiled linen for segregation process demonstrated

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
3. Arrange transportation for cleaning and sanitization	 i. Identification and purpose of cleaning and sanitising requirements • Cleaning and sanitising area • Types of chemical and dilution ii. Transportation cleanliness and sanitising compliance 	i. Determine cleaning and sanitising requirements ii. Check and confirm transportation cleanliness and sanitising procedures	Attitude: i. Systematic and well-organized in arranging transportation for cleaning and sanitization Safety: i. Comply with safety requirements	Related Knowledge 18 Related Skills 42	Related Knowledge Lecture / Group Discussion / Video Related Skills Demonstration / Role Play	i. Identification and purpose of cleaning and sanitising requirements listed out and explained ii. Transportation cleanliness and sanitising compliance listed out and explained

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
4. Coordinate customer's linen delivery	 i. Types and purpose of forms: Clean linen delivery form Time delivery log book Purpose of checking delivery form and other related documents Delivery time as per schedule iii. Arrangement of physical checking and comparison with documentation iv. Verification on accuracy of quantity against documentation v. Safekeeping of linen during delivery vi. Confirmation of customer linen delivery Collection of all documentation after customer's linen delivery 	 i. Determine customer details ii. Check delivery form and other related documents iii. Arrange physical checking and compare with documentation iv. Verify accuracy of quantity against documentation v. Arrange customer's linen for loading vi. Arrange customer 's linen delivery vii. Secure transportation compartment for security purposes viii. Collect all documentation after customer's linen delivery 	i. Systematic and well-organized in coordinating customer's linen delivery Safety: i. Comply with safety requirements	Related Knowledge 18 Related Skills 42	Related Knowledge Lecture / Group Discussion / Video Related Skills Demonstration / Role Play	i. Types and purpose of forms listed out and explained ii. Purpose of checking delivery form and other related documents listed out and explained iii. Arrangement of physical checking and comparison with documentation demonstrated iv. Verification on accuracy of quantity against documentation demonstrated v. Safekeeping of linen during delivery demonstrated vi. Confirmation of customer linen delivery demonstrated

Employability Skills

Core Abilities	Social Skills
 01.07 Utilize database applications to locate a process information. 01.08 Utilize spreadsheets applications to locate and process information. 01.10 Apply a variety of mathematical techniques. 01.11 Apply thinking skills and creativity. 02.09 Prepare flowcharts. 02.10 Prepare reports and instructions. 02.11 Convey information and ideas to people. 03.09 Manage and improve performance of individuals. 03.10 Provide consultations and counselling. 03.11 Monitor and evaluate performance of human resources. 03.12 Provide coaching/on-the-job training. 03.13 Develop and maintain team harmony and resolve conflicts. 03.14 Facilitate and coordinate teams and ideas. 03.15 Liaise to achieve identified outcomes. 03.16 Identify and assess client/customer needs. 03.17 Identify staff training needs and facilitate access to training. 04.06 Allocate work. 05.02 Inspect and monitor work done and/or in progress. 06.07 Develop and maintain networks. 	 Communication skills Interpersonal skills Learning skills Leadership skills Multitasking and prioritising Self-discipline Teamwork

Tools, Equipment and Materials (TEM)

ITEMS	RATIO (TEM : Trainees)		
 Reject form Receiving / collection soiled form Clean linen delivery form Time delivery log book Delivery schedule 	1:1 1:1 1:1 1:1		

References

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- 1. America Standard of Testing and Material, ASTM WK35985 New Practice for Sustainable Laundry Best Management Practices
- 2. Australia / New Zealand Standard AS/NZS 4146:2000 Laundry practice
- 3. Bobák P (2010) Analysis of Energy Consumption in Professional Laundry Care Process, Chemical Engineering Transactions, vol. 21, 109-114
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- 5. Fijan S. (2005), "Implementing Hygiene Monitoring System in Hospital Laundries in Order to Reduce Microbial Contamination of Hospital Textile", Journal of Hospital Infection, Vol. 61 pp. 30-38.
- 6. Institute for Sustainability and Hygiene International, Certification Standards for Processing Reusable Linen, MacKenzie, Brisbane, Queensland, Australia, April 2011.
- 7. J.A. Wilson et. al. (2005), "Uniform: An Evidence Review of the Microbiological Significance of Uniform and Uniform Policy in the Prevention and Control of Healthcare-Associated Infection", Journal of Hospital Infection, Vol. 66 pp. 301-307.
- 8. Kelly M. Pyrek (2011), "Healthcare Textile: Laundry Science and Infection Prevention", Infection Control Today.
- 9. Krishna Veni (2004), "Laundry and Linen Services in Hospital", Paramedical, Vol. Iv No. 1 Jan-Mar.
- 10. Nathan L. Belkin (2009), "Laundry, Patient Linen, Textile and Uniform", Text of Infection Control and Epidemiology (3rd Revised Edition).
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- 12. Textile Rental Services Association of America, Guidelines for Healthcare Linen Service-1999, By Joint Committee on Healthcare Laundry Guidelines, Alexandria, VA, 1999.
- 13. Textile Rental Standard Association (TRSA) Handbook, 2009
- 14. The Environmental Quality Act 1974
- 15. The Healthcare Laundry Accreditation Council (HLAC), Healthcare Accreditation Standards for Processing Reusable Textiles for Use in Healthcare Facilities 2011 Edition, Frankfort, IL, June 2011.
- 16. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), Guidelines for Environmental Infection Control in Health-Care Facilities, Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC), Atlanta, GA, 2003.

CURRICULUM of COMPETENCY UNIT (CoCU)

HOSPITALITY AND TOURISM

SECTOR

SUB SECTOR HOUSEKEEPING									
JOB AREA		HEALTHO	ARE LAUND	RY SERVICES	(PLANT	OPERATION)			
NOSS TITLE HEALTHCARE LAUNDRY OPERATION SUPERVISION									
COMPETENCY UNI	T TITLE	LAUNDRY	Y OPERATIO	N CONTROL					
LEARNING OUTCOME opera unit, ti Mo Ca Co			so that it med es will be ablor or laundry ope out inventory	ets the determir e to:- ration efficiency counting equipment mair	ned timelin				unning of the laundry on of this competency
PRE-REQUISITE (if	applicable)								
COMPETENCY UNI	T ID	HT-054-3	3:2016-C02	LEVEL	3	TRAINING DURATION	360	SKILL CREDIT	36
Work Activities	Related Know	wledge	Relate	ed Skills		ude/Safety/ ronmental	Training Hours	Delivery Mode	Assessment Criteria
Monitor laundry operation efficiency	i. The importar laundry opers control ii. Laundry oper planning and related inform Number of Plant cap Turnarou Approved manpowed headcour Operation	ation ration I other nation of clients eacity and time d er	i. Obtain la operation other relainformatiii. Check mefficience iii. Check mefficience efficience	n planning and ated ion achine y ann ann power	monit	ulous in oring laundry ition efficiency	Related Knowledge 27 Related Skills 63	Related Knowledge Lecture / Group Discussion / Video Related Skills Demonstration	i. The importance of laundry operation control listed out and explained ii. Laundry operation planning and other related information listed out and explained

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
	Client's linen par level Client's complaints Healthcare laundry plant machine efficiency such as: Machine capacity Machine condition Machine downtime Staff competency in handling machine Whealthcare laundry plant manpower efficiency Manpower performance review By quantity By quality Staff discipline monitoring				/ Role Play	iii. Healthcare laundry plant machine efficiency listed out and explained iv. Healthcare laundry plant manpower efficiency listed out and explained

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
2. Carry out inventory counting	 i. Purpose of related laundry inventory information such as: Bin card Inventory form Inventory record Material Safety Data Sheet (MSDS) Product description ii. Types of inventory items Linen Chemical Machine spare parts Laundry consumable such as: Packaging materials Powder wax Personal Protective Equipment (PPE) Documentation form iii. Inventory counting schedule By monthly By quarterly iv. Inventory counting process flow 	 i. Prepare laundry inventory record ii. Determine inventory counting schedule iv. Determine staff involved in inventory counting v. Monitor inventory counting process vi. Collect inventory counting data vii. Check cause of variance viii. Report inventory findings ix. Prepare replenishment requisition 	Attitude: i. Systematic and well-organized in carrying out inventory counting Safety: i. Comply with safety requirements	Related Knowledge 32 Related Skills 76	Related Knowledge Lecture / Group Discussion / Video Related Skills Demonstration / Role Play	i. Purpose of related laundry inventory information listed out and explained ii. Types of inventory items listed out and explained iii. Inventory counting schedule listed out and explained iv. Inventory counting process explained and demonstrated

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
	 Determine staff involves in inventory counting Monitor inventory counting process Collect inventory counting data Check cause of variance Report inventory findings Prepare replenishment requisition 					
3. Coordinate laundry equipment maintenance	 i. Equipment maintenance schedule ii. Coordination of laundry equipment faulty repair work iii. Coordination of scheduled maintenance work iv. Purpose of updating laundry equipment maintenance record v. Verification of laundry equipment maintenance report 	 i. Obtain equipment maintenance schedule ii. Coordinate laundry equipment faulty repair work iii. Coordinate scheduled maintenance work iv. Update laundry equipment maintenance record v. Verify laundry equipment maintenance report 	Attitude: i. Systematic and well-organized in coordinating laundry equipment maintenance	Related Knowledge 22 Related Skills 50	Related Knowledge Lecture / Group Discussion / Video Related Skills Demonstration / Role Play	i. Coordination of laundry equipment faulty repair work demonstrated ii. Coordination of schedule maintenance work demonstrated iii. Coordination of laundry equipment faulty repair work demonstrated iv. Coordination of scheduled

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
						maintenance work demonstrated v. Purpose of updating laundry equipment maintenance record listed out and explained
4. Prepare production report	 i. Production report period Daily Weekly Monthly Quarterly Yearly ii. Purpose of updating production report iii. Preparation of summarized production report 	i. Determine production report period ii. Update production report iii. Prepare summarized production report	Attitude: i. Resourceful in gathering information ii. Thorough and accurate in preparing production report	Related Knowledge 27 Related Skills 63	Related Knowledge Lecture / Group Discussion / Video Related Skills Demonstration / Role Play	i. Production report period produced ii. Purpose of updating production report listed out and explained

Employability Skills

Core Abilities	Social Skills
 01.07 Utilize database applications to locate a process information. 01.08 Utilizespreadsheets applications to locate and process information. 01.10 Apply a variety of mathematical techniques. 01.11 Apply thinking skills and creativity. 02.09 Prepare flowcharts. 02.10 Prepare reports and instructions. 02.11 Convey information and ideas to people. 03.09 Manage and improve performance of individuals. 03.10 Provide consultations and counselling. 03.11 Monitor and evaluate performance of human resources. 03.12 Provide coaching/on-the-job training. 03.13 Develop and maintain team harmony and resolve conflicts. 03.14 Facilitate and coordinate teams and ideas. 03.15 Liaise to achieve identified outcomes. 03.16 Identify and assess client/customer needs. 03.17 Identify staff training needs and facilitate access to training. 04.06 Allocate work. 05.02 Inspect and monitor work done and / or in progress. 06.07 Develop and maintain networks. 	 Communication skills Interpersonal skills Learning skills Leadership skills Multitasking and prioritising Self-discipline Teamwork

Tools, Equipment and Materials (TEM)

ITEM	1S	RATIO (TEM : Trainees)
1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	Weighing scale Calculator Bin card Inventory form Inventory record Material Safety Data Sheet (MSDS) Product description Inventory counting schedule Equipment maintenance schedule Laundry equipment maintenance report Production report	1:1 1:1 1:1 1:1 1:1 1:1 1:1 1:1 1:1 1:1
12.	Computer	1:1

References

REFERENCES

- 1. America Standard of Testing and Material, ASTM WK35985 New Practice for Sustainable Laundry Best Management Practices
- 2. Australia / New Zealand Standard AS/NZS 4146:2000 Laundry practice
- 3. Bobák P (2010) Analysis of Energy Consumption in Professional Laundry Care Process, Chemical Engineering Transactions, vol. 21, 109-114
- 4. Doug Story (2009), "Lesson Required for the Laundry Business of Tomorrow", ALM Journal, Jan/Feb 2009.
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- 11. Standards Australia and Standards New Zealand, AS/NZS 4146:2000, Australian/New Zealand Standard Laundry practice, February 2000.
- 12. Textile Rental Services Association of America, Guidelines for Healthcare Linen Service-1999, By Joint Committee on Healthcare Laundry Guidelines, Alexandria, VA, 1999.
- 13. Textile Rental Standard Association (TRSA) Handbook, 2009
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- 15. The Healthcare Laundry Accreditation Council (HLAC), Healthcare Accreditation Standards for Processing Reusable Textiles for Use in Healthcare Facilities 2011 Edition, Frankfort, IL, June 2011.
- 16. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), Guidelines for Environmental Infection Control in Health-Care Facilities, Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC), Atlanta, GA, 2003.

CURRICULUM of COMPETENCY UNIT (CoCU)

SECTOR		HOSPITA	HOSPITALITY AND TOURISM						
SUB SECTOR		HOUSEK	EEPING						
JOB AREA		HEALTHCARE LAUNDRY SERVICES (PLANT OPERATION)							
NOSS TITLE		HEALTHCARE LAUNDRY OPERATION SUPERVISION							
COMPETENCY UNI	T TITLE	LAUNDRY	Y QUALITY C	ONTROL					
The person who is competent in this competency unit shall be able to ensure the entire process take proper counter check and monitoring in accordance with company Standard Operating Procedures Standard and AS NZS 4146-2000. Upon completion of this competency unit, trainees will be able to: Carry out linen segregation quality control Carry out linen drying quality control Carry out linen ironing quality control Carry out linen folding quality control Carry out linen packaging quality control Carry out linen packaging quality control Carry out linen packaging quality control Carry out linen standard Healthcare laundry compliance test					edures (SOP), MSQH				
PRE-REQUISITE (if	applicable)				1	TD AINUNIO		01/11	
COMPETENCY UNI	T ID	HT-054-3	3:2016-C03	LEVEL	3	TRAINING DURATION	360	SKILL CREDIT	36
Work Activities	Related Know	wledge	Relate	ed Skills		ude/Safety/ ronmental	Training Hours	Delivery Mode	Assessment Criteria
Carry out linen segregation quality control	By client' collection	type tem e of soiled	quality c ii. Monitor segrega iii. Conduct checking	tion process t visual Staff to rectify of linen	carryi segre contro ii. Syste well-c carryi	ematic and organized in org out linen egation quality	Related Knowledge 16 Related Skills	Related Knowledge Lecture / Group Discussion / Video Related Skills	i. Segregation quality control criteria listed out and explained ii. Purpose of monitoring laundry segregation process listed

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
	Out (FIFO) or Client special request ii. Purpose of monitoring laundry segregation process iii. Purpose of conducting visual checking Correctness of segregation Foreign items iv. Rectification of linen mixing during segregation		Safety: i. Comply with safety requirements	38	Demonstration / Role Play	out and explained iii. Purpose of conducting visual checking listed out and explained iv. Rectification of linen mixing during segregation listed out and explained

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
Carry out linen washing quality control	i. Washing quality control criteria By cleanliness level Whiteness Odour Stain Colour By reject level Wear n tear Permanent stain ii. Purpose of monitoring linen washing process Selection of machine type Check loading capacity Selection of washing program iii. Purpose of conducting visual check after wash iv. Rectification of rejected linen Rewash Repair Condemn	i. Identify washing quality control criteria ii. Monitor linen washing process iii. Conduct visual check after wash iv. Instruct staff to rectify rejected linen	Attitude: i. Meticulous in carrying out linen washing quality control ii. Systematic and well-organized in carrying out linen washing quality control Safety: i. Comply with safety requirements	Related Knowledge 16 Related Skills 38	Related Knowledge Lecture / Group Discussion / Video Related Skills Demonstration / Role Play	i. Washing quality control criteria listed out and explained ii. Purpose of monitoring linen washing process listed out and explained iii. Purpose of conducting visual check after wash listed out and explained iv. Rectification of rejected linen listed out and explained

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
3. Carry out linen drying quality control	i. Drying quality control criteria By dryness level (physical checking) By cleanliness level Whiteness Odour Stain By reject level Wear n tear Permanent stain ii. Purpose of monitoring linen drying process Selection of machine type Check loading capacity Selection of drying program iii. Purpose of conducting visual check after drying iv. Rectification of rejected and un-dry linen Re-dry Re-wash Reject	 i. Identify drying quality control criteria ii. Monitor linen drying process iii. Conduct visual check after drying iv. Instruct staff to rectify rejected and un-dried linen 	Attitude: i. Meticulous in carrying out linen drying quality control ii. Systematic and well-organized in carrying out linen drying quality control Safety: i. Comply with safety requirements	Related Knowledge 16 Related Skills 38	Related Knowledge Lecture / Group Discussion / Video Related Skills Demonstration / Role Play	i. Drying quality control criteria listed out and explained ii. Purpose of monitoring linen drying process listed out and explained iii. Purpose of conducting visual check after drying listed out and explained iv. Rectification of rejected and un-dried linen listed out and explained

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
Carry out linen ironing quality control	i. Ironing quality control criteria By ironing finishing quality Crumple Creasing Shrink By dryness level (physical check) By cleanliness level Whiteness Odour Stain By reject level Wear and tear Permanent stain ii. Purpose of monitoring linen ironing process Selection of machine type Selection of ironing program iii. Purpose of conducting visual check after ironing iv. Rectification of rejected, un-dry and crumpled linen Re-feeding Re-wash	i. Identify ironing quality control criteria ii. Monitor linen ironing process iii. Conduct visual check after ironing iv. Instruct staff to rectify rejected, un-dried and crumpled linen	Attitude: i. Meticulous in carrying out linen ironing quality control ii. Systematic and well-organized in carrying out linen ironing quality control Safety: i. Comply with safety requirements	Related Knowledge 16 Related Skills 38	Related Knowledge Lecture / Group Discussion / Video Related Skills Demonstration / Role Play	i. Ironing quality control criteria listed out and explained ii. Purpose of monitoring linen ironing process listed out and explained iii. Purpose of conducting visual check after ironing listed out and explained iv. Rectification of rejected, undried and crumpled linen listed out and explained

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
5. Carry out linen folding quality control	i. Folding quality control criteria By folding finishing quality Folding style Folding style By dryness level (physical check) By cleanliness level Whiteness Odour Stain By reject level Wear and tear Permanent stain II. Purpose of monitoring linen folding process Selection of machine type Selection of folding program III. Purpose of conducting visual check after folding IV. Rectification of rejected and noncompliant folding requirements Re-iron Re-fold Re-wash	 i. Identify folding quality control criteria ii. Monitor linen folding process iii. Conduct visual check after folding iv. Instruct staff to rectify rejected and noncompliant folding requirements 	i. Meticulous in carrying out linen folding quality control ii. Systematic and well-organized in carrying out linen folding quality control Safety: i. Comply with safety requirements	Related Knowledge 16 Related Skills 38	Related Knowledge Lecture / Group Discussion / Video Related Skills Demonstration / Role Play	i. Folding quality control criteria listed out and explained ii. Purpose of monitoring linen folding process listed out and explained iii. Purpose of conducting visual check after folding listed out and explained iv. Rectification of rejected and non-compliant folding requirements listed out and explained

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
6. Carry out linen packaging quality control	 i. Packaging quality control criteria By packaging finishing quality By colour By fabric type By size By quantity By linen item By client's delivery schedule First In First Out (FIFO) or Client special request By cleanliness level Whiteness Odour Stain By reject level Wear and tear Permanent stain ii. Purpose of monitoring linen packaging process Selection of machine type Client's labelling 	i. Identify packaging quality control criteria ii. Monitor linen packaging process iii. Conduct visual check after packaging iv. Instruct staff to rectify rejected and noncompliant packaging requirements	i. Meticulous in carrying out linen packaging quality control ii. Systematic and well-organized in carrying out linen packaging quality control Safety: i. Comply with safety requirements	Related Knowledge 16 Related Skills 38	Related Knowledge Lecture / Group Discussion / Video Related Skills Demonstration / Role Play	i. Packaging quality control criteria listed out and explained ii. Purpose of monitoring linen packaging process listed out and explained iii. Purpose of conducting visual check after packaging listed out and explained iv. Rectification of rejected and non-compliant packaging requirements listed out and explained

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
	iii. Purpose of conducting visual check after packaging iv. Rectification of rejected and noncompliant packaging requirements Repack Re-wash					
7. Coordinate standard Healthcare laundry compliance test	i. Types of standard Healthcare laundry operation test • pH test final rinse water • alkaline and acidity level - pH paper - Digital pH meter • Pathological test on finished linen • Bacteria count • Whiteness test (white linen only) • Whiteness level - Reflectometer ii. Test requirement details • Party involves • Test schedule and frequency • Items	i. Determine types of standard Healthcare laundry operation test ii. Determine test requirements details iii. Arrange Healthcare laundry compliance test iv. Compile and submit Healthcare compliance results to superior or related department	Attitude: i. Meticulous in coordinating standard Healthcare laundry compliance test Safety: i. Comply with safety requirements	Related Knowledge 11 Related Skills 25	Related Knowledge Lecture / Group Discussion / Video Related Skills Demonstration / Role Play	i. Types of standard Healthcare laundry operation test listed out and explained ii. Test requirement details listed out and explained iii. Purpose of arrangement Healthcare laundry compliance test listed out and explained

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
Work Activities	iii. Purpose of arrangement Healthcare laundry compliance test Coordinate with relevant parties Monitor Healthcare compliance test exercise	Related Skills	Environmental	Hours	Mode	Criteria

Employability Skills

Core Abilities	Social Skills
01.07 Utilize database applications to locate a process information. 01.08 Utilize spreadsheets applications to locate and process information. 01.10 Apply a variety of mathematical techniques. 01.11 Apply thinking skills and creativity. 02.09 Prepare flowcharts. 02.10 Prepare reports and instructions. 02.11 Convey information and ideas to people. 03.09 Manage and improve performance of individuals. 03.10 Provide consultations and counselling. 03.11 Monitor and evaluate performance of human resources. 03.12 Provide coaching/on-the-job training. 03.13 Develop and maintain team harmony and resolve conflicts. 03.14 Facilitate and coordinate teams and ideas. 03.15 Liaise to achieve identified outcomes. 03.16 Identify and assess client/customer needs. 03.17 Identify staff training needs and facilitate access to training. 04.06 Allocate work. 05.02 Inspect and monitor work done and / or in progress. 06.07 Develop and maintain networks.	 Communication skills Interpersonal skills Learning skills Leadership skills Multitasking and prioritising Self-discipline Teamwork

Tools, Equipment and Materials (TEM)

ITEN	MS	RATIO (TEM : Trainees)			
1. 2. 3. 4. 5. 6. 7. 8. 9.	Segregation quality control criteria list Washing quality control criteria list Drying quality control criteria list Ironing quality control criteria list Folding quality control criteria list Packaging quality control criteria list pH paper Digital pH meter Reflectometer	1:1 1:1 1:1 1:1 1:1 1:1 1:5 1:10			

References

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- 1. America Standard of Testing and Material, ASTM WK35985 New Practice for Sustainable Laundry Best Management Practices
- 2. Australia / New Zealand Standard AS/NZS 4146:2000 Laundry practice
- 3. Bobák P (2010) Analysis of Energy Consumption in Professional Laundry Care Process, Chemical Engineering Transactions, vol. 21, 109-114
- 4. Doug Story (2009), "Lesson Required for the Laundry Business of Tomorrow", ALM Journal, Jan/Feb 2009.
- 5. Fijan S. (2005), "Implementing Hygiene Monitoring System in Hospital Laundries in Order to Reduce Microbial Contamination of Hospital Textile", Journal of Hospital Infection, Vol. 61 pp. 30-38.
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CURRICULUM of COMPETENCY UNIT (CoCU)

HOSPITALITY AND TOURISM

HOUSEKEEPING

SECTOR

SUB SECTOR

	HEALTHCARE LAUNDRY SERVICES (PLANT OPERATION)								
	HEALTHO	HEALTHCARE LAUNDRY OPERATION SUPERVISION							
IT TITLE	LAUNDRY	Y ADMINISTR	RATIVE FUNCT	ION					
LEARNING OUTCOME		The person who is competent in this competency unit shall be able to ensure the smoothness of the laundry service peration in accordance with company Standard Operating Procedures (SOP). Upon completion of this competency nit, trainees will be able to: Prepare work schedule Coordinate manpower requirements Monitor staff performance Coordinate staff training							
applicable)									
IT ID	HT-054-3	3:2016-C04	LEVEL	3	TRAINING DURATION	240	SKILL CREDIT	24	
Related Know	wledge	Relate	ed Skills			Training Hours	Delivery Mode	Assessment Criteria	
planning ii. Manpower ca and resource iii. Work schedu	apacity es lle and	planning ii. Determir schedule iii. Determir capacity resource iv. Produce schedule v. Assign jo	ne work e format ne manpower and es work e	accur prepa	rate in aring work	Related Knowledge 14 Related Skills	Related Knowledge Lecture / Group Discussion / Video Related Skills	i. Purpose of production planning listed out and explained ii. Manpower capacity and resources listed out and explained iii. Work schedule and assignment	
	i. Purpose of p planning ii. Manpower ca and resource iii. Work schedu	HEALTHO IT TITLE LAUNDRY The perso operation unit, traine Preparation unit, traine Coording Monitor Coording The person operation unit, traine Preparation Coording Monitor Toording Toording Toording Toording Toording Toording Toording	HEALTHCARE LAUND THE LAUNDRY ADMINISTE The person who is compoperation in accordance unit, trainees will be able. Prepare work sched. Coordinate manpow. Monitor staff perform. Coordinate staff trainers will be able. The person who is compoperation in accordance unit, trainees will be able. The person who is compoperation in accordance unit, trainees will be able. The person who is compoperation in accordance unit, trainees will be able. The person who is compoperation in accordance unit, trainees will be able. The person who is compoperation in accordance unit, trainees will be able. The person who is compoperation in accordance unit, trainees will be able. 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Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
					/ Role Play	and explained iv. Briefing conduct demonstrated
Coordinate manpower requirements	i. Calculation of required manpower headcount against forecasted work load and machine capacity ii. Justification on additional manpower headcount iii. The state of the sta	i. Interpret production planning ii. Determine manpower requirements iii. Assess workload against current manpower headcount iv. Request additional manpower headcount	Attitude: i. Meticulous in coordinating manpower requirements	Related Knowledge 18 Related Skills 42	Related Knowledge Lecture / Group Discussion / Video Related Skills Demonstration / Role Play	i. Calculation of required manpower headcount against forecasted work load and machine capacity listed out explained ii. Justification on additional manpower headcount listed out explained

Work Activities	Related Knowledge	Related Skills	Attitude/Safety/ Environmental	Training Hours	Delivery Mode	Assessment Criteria
3. Monitor staff performance	 i. Purpose and contents of staff performance report ii. Standard performance guidelines iii. Observation on actual staff performance such as: Interview Observation on actual work place Peer to peer evaluation Complaint report Disciplinary record Work attendance Medical record 	 i. Determine staff performance report format ii. Identify standard performance guidelines iii. Observe actual staff performance iv. Prepare staff performance report 	Attitude: i. Thorough and accurate in monitoring staff performance	Related Knowledge 22 Related Skills 50	Related Knowledge Lecture / Group Discussion / Video Related Skills Demonstration / Role Play	 i. Purpose and contents of staff performance report listed out explained ii. Standard performance guidelines listed out explained iii. Observation on actual staff performance listed out explained
Coordinate staff training	i. Purpose of training schedule ii. Coordination of staff training iii. Arrangement of training facilities for inhouse training	i. Obtain training schedule according to Human Resources (HR) / training guidelines ii. Coordinate staff training according to training detail iii. Arrange training facilities for in-house training	Attitude: i. Systematic and well-organized incoordinating staff training	Related Knowledge 18 Related Skills 42	Related Knowledge Lecture / Group Discussion / Video Related Skills Demonstration / Role Play	 i. Purpose of training schedule listed out explained ii. Coordination of staff training demonstrated iii. Arrangement of training facilities for in-house training demonstrated

Employability Skills

Core Abilities	Social Skills
 01.07 Utilize database applications to locate a process information. 01.08 Utilize spreadsheets applications to locate and process information. 01.10 Apply a variety of mathematical techniques. 01.11 Apply thinking skills and creativity. 02.09 Prepare flowcharts. 02.10 Prepare reports and instructions. 02.11 Convey information and ideas to people. 03.09 Manage and improve performance of individuals. 03.10 Provide consultations and counselling. 03.11 Monitor and evaluate performance of human resources. 03.12 Provide coaching/on-the-job training. 03.13 Develop and maintain team harmony and resolve conflicts. 03.14 Facilitate and coordinate teams and ideas. 03.15 Liaise to achieve identified outcomes. 03.16 Identify and assess client/customer needs. 03.17 Identify staff training needs and facilitate access to training. 04.06 Allocate work. 05.02 Inspect and monitor work done and / or in progress. 06.07 Develop and maintain networks. 	 Communication skills Interpersonal skills Learning skills Leadership skills Multitasking and prioritising Self-discipline Teamwork

Tools, Equipment and Materials (TEM)

ITEN	AS	RATIO (TEM : Trainees)		
1. 2. 3. 4. 5. 6. 7. 8. 9.	Production planning Work schedule Staff performance report Standard performance guidelines Complaint report Disciplinary record Work attendance Medical record Training schedule	1:1 1:1 1:1 1:1 1:1 1:1 1:1		

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SUMMARY OF TRAINING DURATION FOR HEALTHCARE LAUNDRY OPERATION SUPERVISION LEVEL 3

CU ID	COMPETENCY	WORK ACTIVITIES	RELATED KNOWLEDGE	RELATED SKILLS	HOURS	TOTAL
	UNITITLE		(A)	(B)	(A+B)	(HOURS)
		Coordinate customer's linen collection (customer collection area)	18	42	60	
HT-054-3:2016-	LINEN COLLECTION	Receive customer's linen at loading bay (plant)	18	42	60	240
C01	AND DELIVERY	Arrange transportation for cleaning and sanitization	18	42	60	
		Coordinate customer's linen delivery	18	42	60	
		Monitor laundry operation efficiency	27	63	90	
HT-054-3:2016-	LAUNDRY OPERATION CONTROL	Carry out inventory counting	32	76	108	360
C02		Coordinate laundry equipment maintenance	22	50	72	
		Prepare production report	27	63	90	
		Carry out linen segregation quality control	16	38	54	
		Carry out linen washing quality control	16	38	54	
HT-054-3:2016-	LAUNDRY QUALITY	Carry out linen drying quality control	16	38	54	360
C03	CONTROL	Carry out linen ironing quality control	16	38	54	360
		Carry out linen folding quality control	16	38	54	
		Carry out linen packaging quality control	16	38	54	

CU ID	COMPETENCY UNIT TITLE	WORK ACTIVITIES	RELATED KNOWLEDGE	RELATED SKILLS	HOURS	TOTAL
			(A)	(B)	(A+B)	(HOURS)
		Coordinate standard Healthcare laundry compliance test	11	25	36	
HT-054-3:2016- C04	LAUNDRY ADMINISTRATIVE FUNCTION	Prepare work schedule	14	34	48	240
		Coordinate manpower requirements	18	42	60	
		Monitor staff performance	22	50	72	
		Coordinate staff training	18	42	60	
TOTAL HOURS (Core Competencies)			360	840	1200	1200