## TENDER REFERENCE NO.: KK/217/2025/MOH(TC)

# MINISTRY OF HEALTH NEGARA BRUNEI DARUSSALAM

## THE PROVISION OF HEALTHCARE WASTE SERVICES FOR HOSPITALS AND HEALTH FACILITIES OF THE MINISTRY OF HEALTH FOR A PERIOD OF TEN (10) YEARS

**TENDER FEES** : \$5,000.00

RECEIPT NO. :

**CLOSING DATE**: ON TUESDAY, 28th October 2025

TIME : 2.00 PM

FOA :

THE CHAIRMAN
MINI TENDER BOARD, TENDER BOX
GROUND FLOOR, MINISTRY OF HEALTH
COMMONWEALTH DRIVE
BANDAR SERI BEGAWAN BB3910
NEGARA BRUNEI DARUSSALAM

(CLUSTERING)

## **SECTION 2**

## **SPECIFICATIONS**

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#### 1.0 INTRODUCTION

- 1.1 This section provides bidders with the necessary references namely scope of services, technical requirements and specifications to manage and dispose Healthcare Wastes (hereinafter referred to as the Services) to MOH hospitals and health facilities.
- 1.2 The Services concerns daily collection of healthcare wastes and disposal to dedicated treatment facilities. The activities and operating standards for the Services are provided in six categories of work below:
  - 1. General Requirements
  - 2. Collection of Waste
  - 3. Supplies of tools and consumables
  - 4. Storage services
  - 5. Transportation services
  - 6. Spillage services

#### 2.0 SCOPE OF WORK

#### 2.1 GENERAL REQUIREMENTS

#### (1) Management and Planning

#### a. Delivery of Services

- i. The Company is required to provide effective and efficient management of the Services which include collection, storage, transportation, treatment and disposal, and consumable supplies.
- ii. Company shall be responsible and liable in ensuring that the requirements for the Services and other obligations are delivered in accordance to the Government's requirements under this Contract with a focus on patient safety and quality of service as well as awareness of cost control.
- iii. The Company shall be responsible to install a treatment facility to treat and dispose healthcare wastes at their own cost. The Company shall utilise effective technology to treat healthcare waste and prevent spillage at any time.
- iv. The waste treatment facility shall meet the following criteria:
  - 1. Has the capacity to process healthcare waste until the end of the contract;
  - Complies with national and international emission standard requirements, particularly in relation to air emissions and ash disposal;
  - 3. Capable to incinerate all types of healthcare wastes, including chemicals;
  - 4. Has high safety feature including emergency shut-off systems;
  - 5. Operated with automation for certain processes like waste feeding and integrated with advanced monitoring and control system; and
  - 6. The installation of the incinerator will be completed within one year.
- v. The company shall ensure that healthcare waste is collected and disposed efficiently from the Hospital and health facilities according to the frequencies, schedules and routes as agreed upon and documented in the HSIP. The location to be covered for the whole duration of the Contract (hereinafter referred to as HWMS Service Facilities) are listed as in Schedule A. The list shall also be recorded in HSIP and updated accordingly upon any changes.

- vi. The Company shall carry out all operations required by HWMS in a manner to comply with all the related legislations including any new legislations and amendments to existing legislations during the Contract Period. The following guidelines by the Ministry of Health as well as the Department of Environment, Parks and Recreation (JASTRe), Ministry of Development, Brunei Darussalam are applicable:
  - 1. Guideline on Health Care Waste Management 2019;
  - 2. Environmental Protection and Management Order, Chapter 240 (S 63/2016);
  - Hazardous Waste (Control of Export, Import and Transit) Order 2013:
  - Pollution Control Guidelines for Industrial Development in Brunei Darussalam. 2003
- vii. The Company shall be liable for all costs and expenses incurred including but not limited to obtaining of any consultations, spares, installation, maintenance of equipment and other related consumable supplies and any expenditure for the operation and management and the provision of the Services under this Agreement
- viii. The Company shall be given two months' prior notice to be ready to perform the Services right from the first day of commencement of contract and meet the technical service requirements for the Service.
- ix. Within three months upon commencement of contract, the Company shall conduct a thorough Facility Audit for the following purposes:
  - 1. To re-inspect the condition of existing equipment, facilities, and devices are in order for operation (*first inspection conducted at tender stage*);
  - 2. To compile relevant operating data;
  - 3. To plan for maintenance, replacement or upgrading works; and
  - 4. To prepare KPI performance reporting format.

## (2) Takeover Procedures

The takeover procedures are designed to ensure a seamless transition of services from the incumbent provider to the Company with minimal disruption to operations. For a smooth transition of services, in conjunction with the MOH's obligations the MOH will:

#### a. Collaborate Effectively

Work closely with the awarded Company on all service-related matters, including meetings to discuss quotations and tenders, assisting with evaluation processes, and coordinating appointments with End Users.

## b. Ensure Compliance

Adhere to the established Standard Operating Procedures (SOPs) for service delivery.

## c. Facilitate Operational Requirements

Provide, in a timely manner and without charge, exclusive access to necessary office accommodations, data, and other facilities as specified in the relevant Purchase or Delivery Orders.

#### (3) Contingency Plan

a. The Company shall develop and implement contingency plan to address potential failures or crisis especially emergency response procedures for all critical equipment / services and to include the contingency of possible loss thereof.

- b. The contingency plan must be tested in one form or another on yearly basis to ensure that all personnel is prepared for any incident or disaster such as fire, flood, explosion, landslide, terrorism, outbreak etc.
- c. The Company shall also set up Emergency Response Team @ ERT to perform emergency work and maintain the Contract Facility in a high state of preparedness as and when required.
- d. The ERT members shall be led by the Contract Manager and remain contactable at all times by advising their contact details including hand phone numbers on 24/7 to the HWMS Service Facility.
- e. The costs related with the standby and support of an Emergency Response Team lead by the Contract Manager and supported by the Facility Management Team is deemed inclusive in the Contract. No additional cost for any overtime work or emergency attendance / support can be claimed.
- f. It is the total responsibility of the Company to ensure that adequate spares, materials, tools, equipment and labour are made available to perform such works and no additional claims will be entertained due to the emergency nature of any of the works and services to be executed.

#### (4) Human Resource

#### a. Manpower Management

- i. Company shall ensure proper delegation of management responsibilities and authority within the operations of the Services to achieve the objectives. Contract Manager shall be the person in charge and he/she shall be certified by education or qualified by training or experienced to manage the Service to the requirements of MOH.
- ii. The Company shall always ensure sufficient personnel are deployed to deliver the expected delivery performance including those of the following:

### No Position

- 1. Contract Manager
- 2. Healthcare Waste Executive @ Assistant Contract Manager;
- 3. Healthcare and Safety Officer
- 4. Quality Officer
- 5. Healthcare Waste Supervisors
- 6. Team Leaders / Assistant Supervisor
- 7. Porters
- 8. Help Desk Operator

Details of deployment and job description are specified as in **Schedule B.** 

- iii. Appointment and deployment of contract managers and/or Supervisors shall be notified to the Ministry of Health. Consequently, the contract managers and/or Supervisors shall work exclusively for the Company and be deployed exclusively for the provision of the Service. The Company shall update the CVs, basic duties and responsibilities of the contract managers and/or supervisors in HSIP.
- iv. Replacement of any contract managers and/or Supervisors shall be notified by the Company to the MOH in the event of long leave eg. medical or annual leave or resignation.

- v. The Company shall provide adequate qualified and competent manpower with good language fluency in English and Malay and match the prescription to perform all the activities for the Service.
- vi. The Company shall provide on-call staff after office hours including working days and public holidays to transport any requested waste or at any emergency case such as major medical emergency and in an event of major disaster. The Company shall provide the contact numbers of the scheduled on-call supervisor or staffs.

#### b. Personnel Administration

The Company shall ensure efficient administration of personnel deployed for the contract including of the following:

- i. Pre-employment and periodic medical screening to ensure employees are medically fit for duty;
- ii. payment of statutory fees, insurances and wage in accordance with the requirements of the Labour Department, Brunei Darussalam and to adhere to the minimum wage order from the Manpower Planning and Employment Council (MPEC) including the "Skim Persaraan Kebangsaan" for its local employee;
- iii. provision of insurance coverage against any liabilities arising from employee claims for compensation under the Workmen's Compensation Act Chapter 74 of the laws of Brunei;
- iv. ensure all non-local staff are provided the necessary medical coverage during their employment in Brunei;
- v. provision of uniform bearing with the company's Logo at Company's expenses
- vi. application of dress code and PPEs to suit with the operating and hygiene requirements at HWMS Service Facilities such that employees responsible for packing, wrapping, storing, or transporting healthcare wastes are always in clean attire and free of visible soil.
- vii. provision of appropriate PPEs for employees' specific work processes
- viii. vaccinations and immunization programmes for employees, as recommended by MOH such as Hepatitis B, Tetanus, and etc.
- ix. promotion of hand hygiene practices especially those involved with packing, wrapping, storing or transporting healthcare wastes;
- x. provision of employees' identification passes with colour photographs and barcodes for security and access control
- xi. registration, tracking and maintenance of updated record on work permits and employment pass for foreign employees
- xii. security procedures and measures to deal with unauthorised access and loss, or misuse of security passes
- xiii. enforcement of access procedures to ensure employees do not at any time enter into restricted areas which are not specified except as directed by MOH;

- xiv. maintain contingency team and their contact numbers to transport healthcare wastes when needed during off working hours or emergencies;
- xv. monitor and enforce staff attendance at their designated work areas during such working hours, and provide temporary replacement/relief to make up with the full strength of the employees required for the Services
- xvi. prepare duty rosters for deployment of employees and notify MOH accordingly of any changes or updates
- xvii. install and operate Attendance Monitoring System/Unit to record and monitor attendance of personnel and track their movements and deployment on real-time basis. Ministry of Health shall be notified of the installation and placement of the Attendance Monitoring System accordingly.
- xviii. maintain a grievance and disciplinary procedure to address staff misconduct, absenteeism, or breaches of hygiene and safety protocols; and
- xix. ensure that all employees are aware of and comply with confidentiality requirements, especially when operating within sensitive areas of MOH facilities.

#### c. Attendant Services

HWMS personnel may be required to provide logistic support at the HWMS Service Facilities for planned tasks and ad-hoc requests. The Company shall allow the personnel to assist HWMS Service Facilities to perform housekeeping for the programmes, events or service arrangement undertaken at the HWMS Service Facilities. Examples of tasks include arrangement of furniture and office items, clearing outdated notices and posters from notice boards and keeping of wheelchairs at the designated wheelchair parks

#### d. Training and Development

- i. The Company shall plan and implement trainings on operations and delivery requirement for the Service and awareness programmes on Safety Health and Environment (SHE) issues for the personnel to ensure the effectiveness in the provision of the Services both prior to deployment at work place and in the course of service performance.
- ii. Training for the supervisors and porters assigned on-site at the HWMS Service Facility shall be performed prior to their job assignment to ensure their familiarity of the important aspects of the provision of the Services. Refresher courses shall also be planned to the respective employees to ensure quality delivery of the Service.
- iii. Company shall have a development plan and adequate training to end users to conform to the relevant regulations and codes of practices.
- iv. The Company shall provide at least 4 (four) user trainings a year to HWMS Service Facility personnel involved with the Service and forward training modules to MOH for acknowledgment. The number of minimum participants shall be decided by the HWMS

Service Facility. The Company shall document the agreed user training programmes in the HSIP and evaluate the effectiveness of such programmes for improvement.

- v. The major training modules that shall be provided by the Company include:
  - 1. Health effects elements of the different categories of Healthcare Wastes.
  - 2. An overview of Healthcare Waste Management Service Requirements.
  - 3. The Roles and Responsibilities of Company and HWMS Service Facility Personnel (with emphasis on what the users need to check during verification).
  - 4. Effective Segregation and Other Safety Aspects of HWMS.
  - 5. Regulatory Requirements
  - 6. Management of Incidents
- vi. The Company shall submit the training syllabus for these modules to the Government for approval. The training syllabus shall be accompanied by the name and credentials of the designated trainer.
- vii. The training modules as listed above may be conducted in different sessions or combined into one or two sessions.
- viii. During the provision of services at the HWMS Service Facilities, the Company shall also identify any additional training needs that may be necessary to enhance the understanding of service requirements, thereby improving the users' ability to fulfil their responsibilities and to more effectively monitor the Company's service performance.
- ix. The training modules, as identified through the training needs assessment, shall be submitted to the Government for approval and inclusion in the training program. Additional training modules may also be identified by the Government.
- x. The Company shall ensure that qualified personnel are assigned to deliver all training modules. The trainer may be a member of the Company's staff or may be specifically engaged for the purpose of delivering the training.
- xi. The Company shall submit a proposed training schedule for approval by the Health Facility CEO/SHA.
- xii. The Company shall maintain a record of training delivered.
- xiii. Should the training outlined in the HSIP need to be rescheduled for any reason, the Company shall submit a written request to the Health Facility CEO/SHA for approval of the postponement. The Company shall ensure that the rescheduled training date occurs within the same calendar year.
- xiv. Should the postponement be requested by the HWMS Service Facility, the request for a change in the training schedule shall be submitted in writing by the Health Facility CEO/SHA, or alternatively, as a written acknowledgement by the Company of the HWMS Service Facility's verbal request.

#### e. Effective Communication and Consultation

- The Company shall provide continuous and credible information via trainings, seminars, brochures, meetings, posters, reports or any other means to create awareness.
- ii. The Company shall establish communication procedures of reporting and updating on issues of the Services such as testing of system, training requirements, equipment maintenance, warranty expirations and equipment recall.

#### f. Security

- i. The Company shall ensure their employees are aware of and abide to security regulations of the respective HWMS Service Facility. Any pilferage, loss and damage caused by their employees to any item belonging to the HWMS Service Facility will be borne by the Company.
- ii. For access into the HWMS Service Facilities, the Company, its employees, agents and sub-contractors must have security passes issued by the Company. For that purpose, the Company shall submit detailed listing of their employees, agents and sub-contractors to the HMWS Service Facility Administration, and complete with photographs for access to certain locations as determined by the HWMS Service Facility.
- iii. Staff of the Company, its employees, agents and sub-contractors shall only have access to areas as prescribed by the HWMS Service Facility and that they shall not access any facility for any purpose other than that specified for the Services. They are also liable to security check at any places within the HWMS Service Facility compound.
- iv. The Company shall immediately report any security breaches, suspicious behaviour, or loss of access passes to the HWMS Service Facility Administration and cooperate fully in any subsequent investigation.
- v. The Company undertakes to inform the Ministry of Health of any changes to the list of personnel and to obtain the necessary approval of the Ministry of Health.
- vi. The Company shall request from Ministry of Health all the individual personnel for security clearance. Consequently, the company shall issue security passes to the Company's Employees, at the Company's own costs. For admission into the Site, such passes must be worn by the Employees in a conspicuous manner so as to be easily identified by the Ministry of Health's security personnel. Such passes must be worn at all times while performing the Services on Site.
- vii. The Company shall at its own expense, issue "Break Time" passes to the Employees. Such passes must be worn by the Company's Employees ONLY during their break time, with prior approval from the Officer in-charge on the set time.
- viii. For security purposes, the Company will provide the HWMS Service Facilities' officer in-charge with the following particulars of their workers at least one (1) month before the commencement of the services:

- Name
- Address
- Identity Card Number / Passport Number
- Gender
- Citizenship
- Expiry date of work pass (for foreign workers)

### (5) Management of Outsourced Services

- a. The Company shall ensure that sub-contractors engaged to carry out any part of the scope of work are registered with the relevant authority and approved by the Government. The Company shall remain fully responsible for the performance of sub-contractors at all times.
- b. The Company shall provide purchase contracts for items for the disposal or treatment of healthcare waste and the contract status should be updated in HSIP.

#### (6) Policies and Procedures

#### a. Master Procedures

- i. All policies, technical requirements and Master Procedures HMP000 HMP017 stated herein shall be adhered to accordingly.
- ii. The list of Master Procedures is as follows:

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HMP000	Healthcare Waste Management Services Specification
HMP001	Segregation Of Healthcare Wastes
HMP002	Collection Of Healthcare Wastes
HMP003	Cleaning And Maintenance Of Healthcare Waste Devices
HMP004	Management Of Spillage Within A Hospital
HMP005	Disinfection Of Infectious Clinical Waste
HMP006	Recording Of Waste Collected At User Area
HMP007	Weighing And Documentation Of Healthcare Wastes After
	Collection
HMP008	Consignment Note Management And Waste Inventory
HMP009	Management And Maintenance Of The Central Healthcare
	Waste Store
HMP010	Management Of Spillage On Public Road
HMP011	Compliance With Statutory & Regulatory Requirements
HMP012	Risk Management For Healthcare Waste Management
HMP013	User Training
HMP014	Investigation In Case Consignment Note Was Not Received
	By Hospital After One Month
HMP015	HWMS Quality Assurance Programme
HMP016	Safety Audit Plans
HMP017	Hospital Specific Implementation Plan (HSIP)

The above procedures are provided as in Appendix A.

iii.		ications for tools, devices and consumables (HWS001 – nvolved in the delivery process are listed below:
	HWS001	Specification For Infectious Clinical Waste Bags
	HWS002	Specification For Clinical Waste Bags
	HWS003	Specification For Cytotoxic Waste Bags
	HWS004	Specification For Recyclables Waste Material Bag
	HWS005	Specification For Clinical Waste Bag Holders
	HWS006	Specification For Treatment Trolley Receptacles Bracket
	HWS007	Specification For Sharp Container
	HWS008	Specification For Treatment Trolley Receptacles
	HWS009	Specification For One-Way Plastic Seal
	HWS010	Specification For Liquid Chemical Waste Containers
	HWS011	Specification For Labelling Of Other Scheduled Wastes

HWS012	Specification For Healthcare Waste Collection Devices
HWS013	Specification For Clinical Waste Transportation Devices
HWS014	Specification For Clinical Waste Transportation Device For
	Use By Other Government Healthcare Facilities
HWS015	Specification For Central Healthcare Waste Store
HWS016	Specification For Clinical Waste Transportation Vehicles
HWS017	Specification For Demarcation Of Clinical Waste On-Site
	Storage Receptacles
HWS018	Specification For Clinical Waste Spillage Kits
HWS019	Specification For Chemical Waste Spillage Kits

The above procedures are provided as in **Appendix B.** 

iv. Whilst Master Procedures provide key tasks and responsibilities of MOH and Company, detailed standard operating procedures (SOPs) shall be established by the Company to enable effective and efficient operations and delivery of the Services to all HWMS Service Facilities as listed in the contract. The documents shall be made available and understood by all personnel. The Company shall prepare complete sets of all SOPs and register them under their Quality Management System accordingly.

#### b. HWMS Service Facility Specific Implementation Plan (HSIP)

- i. The Company shall establish Hospital Specific Implementation Plan (HSIP) and to be developed together with MOH within the first year of contract for each HWMS Service Facility. HSIP is essentially a specific plan for service delivery at the respective HWMS Service Facility. It should be updated from time to time or at least annually to reflect changes to any part of the plan. Failure to conform to the HSIP requirements shall constitute a serious non-conformance to the service standards. The HSIP shall include the following:
  - a. Organization chart and staff details involved in the Service.
  - b. Detailed listing of zoning of User Departments as defined in the Deduction Formula Guidelines, as well as the specific healthcare waste requirements and required shelf level by wastes type for each User Department, agreed by personnel in-charge of each user location.
  - c. Schedules for transporting healthcare waste, collection of healthcare waste including the storage of the healthcare waste and weighing of healthcare waste, agreed by personnel in-charge of each User Department.
  - d. Routes for delivery of healthcare waste and collection of healthcare waste agreed by HWMS Service Facility authorities.
  - e. Framework for Deduction Formula parameters.
  - f. Quality Assurance indicators and reporting mechanism
  - g. Contingency Plan for various emergency, e.g. contingency measures taken during prolonged breakdown of Incinerator, etc.
  - h. Certificates and licenses including all regulatory requirements at Incinerator Plant which should be valid for current year.
  - i. Location of Incinerator Plant details.
  - j. List of healthcare waste types, tags and bags located at user areas.
  - k. Any other document required to be included in HSIP.

#### (7) Management of Facilities and Resource Centre

#### a. Facilities and Helpdesk

- Company shall provide comprehensive technical resources including incinerator plant facilities, vehicle workshops, storage facilities and Help Desk facility complete with tools, test equipment, parts and other relevant resources to effectively carry out the scope of the Services.
- ii. Helpdesk services shall be made available at all operating HWMS Service Facilities.

- iii. The Company shall **finance all** the design, constructions as well as the operation and maintenance of all the facilities concerned.
- iv. The Company shall ensure that maintenance activities for the facilities are planned and implemented to render continuous operations and consistent quality performance as required by the Service specification.
- v. Communication devices shall be provided at Company's own costs

#### b. Management of Resource Centre

- i. The Company shall provide comprehensive resource center for effective document management system to contain the technical documents such as manuals drawings and other related documents, drawings, manuals and other related documents to carry out the scope of the Services.
- ii. The Company shall procure necessary technical documents from manufacturers and project consultants where available and update all the references as required.

## (8) Quality and Improvement Activity

#### a. Quality Management System

- i. The Company shall ensure that the Service provided under the Contract is of high quality, using updated technology and conform to the Scope of Services, requirements and indicators as outlined in this specification and contract document. The Company shall conform and maintain quality assurance system to achieve ISO9001 certification.
- ii. The Company shall attain management standard ISO9001 Quality Management System and ISO14001 Environmental Management Standard (EMS) within three years.
- iii. The Company shall be responsible for the quality of service. MOH's monitoring of quality of service shall not relieve the Company of any contractual obligations in any respect towards quality requirements.

## b. Quality Assurance Program (QAP)

- i. The Company shall institute and maintain a documented Quality Assurance Program (QAP) with continual improvement initiatives to raise standard of efficiency and performance reliability.
- ii. The Company shall maintain records and statistics on the performance of the Service including equipment and services availability, quality, activities analysis of efficiencies and recommendation for continual improvement. Analysis of performance and solutions for improvement to minimize unfavourable service issues shall be submitted to MOH on quarterly basis.
- iii. The Company shall conduct asset criticality assessments and root cause analysis for major breakdowns and frequent failures to minimize recurring failures. Analysis of findings and solutions shall be submitted to MOH accordingly.
- iv. Service Improvement the Company shall endeavour to continually improve the quality of service through implementation of Quality Assurance Programme and relevant ISO certification programmes. In addition, the Company shall institute proper documented training programme for all personnel involved in the Service, service inspections

by Company supervisors, review of fee deduction, review of wastes test results and analysis of SHE or user feedback on the quality of Service. Performance report shall be submitted to HWMS Service Facility illustrating achievements against targets and the frequency as indicated below:

No.	Indicator	Target	Reporting Frequency
1.	Percentage collection of clinical waste per schedule	100%	Monthly
2.	Percentage transportation of clinical waste per schedule	100%	Monthly
3.	Percentage of incidents and spillage reported with Root Cause Analysis (RCA) done and action taken to prevent recurrence	100%	Monthly
4.	Internal customer satisfaction survey	80% satisfaction	Quarterly

#### (9) Safety, Health and Environment

## a. Safety Management

- i. The Company shall practice and develop written safety plans and activities for the provision of the Services at the respective HWMS Service Facilities (incinerator plant, warehouse etc.). The plans shall also include but not limited to Incident Reporting as required under the relevant acts and regulations.
- ii. The following are among safety activities to be conducted:
  - establish procedures to report all unsafe conditions, near miss accidents, and unsafe act of other employees or users of the waste facility;
  - b) provide continual safety and health education, medical check-up and immunization program for workers, Personal Protective Equipment (PPE) such as safety glasses/goggle (with side shields where necessary) safety helmets, respirators, gloves, safety boots and establish safety rules for various personnel; and
  - c) conduct regular safety audit; and
  - conduct regular review meetings on safety practices and effectiveness of actions to address specific safety issues or noncompliance.

#### b. Risk Assessment Management

In recognition of public health, environmental, safety and health concerns, the Company has to exercise risk management practices across the whole service processes in order to minimize the following:

- i. Risk of infection due to improper handling, collection and transporting of healthcare waste;
- Risk of environmental and occupational hazards due to unsafe handling, storage and operation of the healthcare waste;
- iii. Risk of litigation for non-conformance to regulatory requirements;
- Risk of environmental contamination and occupational exposure / hazards from improper waste water treatment and effluent discharge at waste facility;

v. Risk of service interruption due to emergencies or extensive periods of services down-time.

The Company shall identify assess and prioritize those risks followed by coordinated and economical application of resources to minimize, monitor and control the probability and/or impact of unfortunate events or to maximize the realization of operational opportunities. Relevant activities to be carried out include Risk Assessment Audits and regular communication to advise the HWMS Service Facilities on potential risk or hazards to patient care.

#### (10) Technical Support

- i. Company shall provide professional technical advice / recommendations to improve service provision, quality of service and as an input to works schemes on a regular basis or when the need arises. Technical advice on healthcare waste kits condition and specific processes to address specific issues shall be submitted within two (2) weeks upon request.
- ii. The Company may, whenever appropriate, propose new types of bags and bins used for disposal which may benefit the end users. Such proposals should be submitted to the MOH for approval.

#### (11) Reports and Records

- i. The Company shall provide and demonstrate implementation mechanism to ensure the accuracy of operational data in hard copy and digital mode. The Company shall ensure that all data and pertinent information on the Service and the equipment are registered completely and standardized.
- ii. Any form, documents, drawings, data and specification referred to as records used for, arising from or in respect of the Services shall be the property of the Government. All the records related to the Service in both hard copy and digital format shall be properly kept and filed securely for easy access and retrieval for inspection and analysis. The record includes updated inventory of healthcare waste collected, fee of the Services, service transactions from the commencement of transportation to waste facilities and other reports as requested by the Government.
- iii. The Company shall grant HWMS Service Facilities or its Authorised Officers access to those records as they may reasonably require in order to ensure that the Company is in compliance with the Contract and any applicable laws.
- iv. At the end of contract period, the records shall be handed over to HWMS Service Facilities within three months after the contract expiry date. All the records shall also be retained for a minimum period of six (6) years upon contract expiry.
- v. The Company shall prepare and submit service performance reports regularly to HWMS Service Facilities to present various aspects of the Service including the situation of resource deployment, service challenges and issues, KPI performance and initiative or action plan to improve the Service.

#### (12) Service Information and Management System

i. Company shall design, develop, test, commission, supply, deliver and install customized and integrated Service Information and Management System (SIMAS) into full operation within one year from the commencement of contract. The design of SIMAS should provide the Service with a strong database on the operations and the analytics to realize service requirements.

- ii. Development of SIMAS shall be coordinated by MOH to ensure practical application of the Service. Requirements for installation of SIMAS are specified under **Schedule C**.
- iii. Tendered shall make a provision of budget for the development and continuous maintenance and operation of SIMAS.
- iv. The Company shall ensure trained personnel are employed throughout the data gathering and data entry activities to ensure integrity of data entry and provide training for MOH personnel on the use, administration and operation of the system and software.
- v. At the expiry of contract, the System shall be handed over to MOH complete with updated record of service, source codes, system specification and manual for continuous application.

#### (13) Service Charges and KPI

#### i. Service Charges

- a. The Company's service fee shall be determined according to the net of total weight of healthcare waste collected everyday being stored in transit or transported out to treatment facility as jointly verified by representatives from both the HWMS Service Facilities and Company. The Company shall only claim for payment of service fee based on the verified weight.
- b. The Service rate is \$xxxx per kilogram. Accordingly, the Service fee formula is as follows:

HWMS Fee (BND) = Total CW Collected (kg) X Rate (BND/kg)

#### ii. KPI

a. Prior to installation of Service Information and Management System (SIMAS), the review of the Company's monthly performance rating shall be based on the scheme below:

PERFORMANCE RATING	% OF CLAIMABLE AMOUNT
91% - 100%	100%
81% - 90%	90%
71% - 80%	80%
61% - 70%	70%
51% - 60%	60%
50% and below	50%

- Upon implementation of SIMAS, the expected service performance or KPI for the service and deduction for service shortfall will be applied. The KPIs and deduction indicators for the Service are provided under Schedule D.
- c. The Ministry of Health reserves the right to terminate the Service contract if the Company's performance does not meet the KPIs or consistently falls below the Ministry of Health's standards.
- d. The Company shall prepare and submit monthly invoices for each HWMS Service Facility and address to the respective Health Facility CEO/SHA.

#### 2.2 SERVICE DELIVERY

### (1) Collection of Waste

#### i. Management of Collection

- a. The Company shall be responsible for the collection of healthcare waste deposited in designated bags, containers, and/or receptacles within user areas as specified in HMP0002. In the execution of this task, the Company shall ensure the implementation of the following actions.
  - The Company shall provide all the required manpower, tools, and equipment to facilitate the collection of healthcare waste. This shall encompass the provision of PPE for its personnel involved in the collection process.
  - 2. Healthcare waste from all user areas shall be collected in accordance with the established minimum frequencies or as otherwise mutually agreed upon in HSIP.
  - 3. The collection operation shall be conducted using a designated collection device, in accordance with an approved route and schedule by the Health Facility CEO/SHA.
- b. Record of the approved route and schedule specified by the Health Facility CEO/SHA shall be prepared by the Company and shall become part of the HWMS Service Facility Specific Implementation Plan (HSIP) for each HWMS Service Facility. Changes to such a route and schedule shall not be made without prior written approval from the Health Facility CEO/SHA.
- c. Records of waste collected shall be maintained in accordance with established procedures.
- d. In the event of any spillage of healthcare waste within the HWMS Service Facility, the Company shall implement its spillage management procedures, including containment, disinfection, and reporting, in accordance with MOH guidelines.
- e. The Company shall be responsible for cleaning and disinfection of all receptacles used for the storage of healthcare waste and the collection devices employed for the gathering of healthcare waste.
- f. The Company shall ensure that the quantity of clean bins delivered meets the requisitions of each User Department, both in terms of waste type and bin sizes, as previously agreed upon by each User Department and documented in the HSIP.
- g. The Company is accountable for the safe and efficient collection of healthcare waste generated at the HWMS Service Facility. This responsibility encompasses the segregation of waste from designated storage facilities within the HWMS Service Facility premises, ensuring that all materials are managed in strict compliance with regulatory requirements and industry best practices.

Other Area, such as Health Facility and Departments etc. - The waste is to be collected from the designated waste collection areas.

### ii. Weighing and Documentation of Healthcare Waste Transfer to Treatment Facility

- a. The weighing and weight estimation of healthcare waste, along with the documentation thereof prior to its transportation to designated facilities, shall be conducted jointly by the Company's representative and the authorized representative of the HWMS Service Facility.
- b. This operation shall be conducted at the Central Healthcare Waste Store CHWS or another designated area, in accordance with the schedule as approved by the Health Facility CEO/SHA.
- c. HWMS Service Facility's representative shall keep one copy of the document, which shall be signed by HWMS Service Facility's representative and the Company representative at the end of the weighing operation.

#### iii. Information and Documentation

The Company shall manage the following information and documentation according to the requirements specified for MOH and any other documentation required by the relevant authorities. This shall include, but not limited to:

- a. Scheduled Waste:
  - i. Collection record
  - ii. List of licenses and certificate of fitness
  - iii. Company drivers and vehicle
  - iv. List of licensed contractors
  - v. Weighing record
  - vi. Relevant Chemical Safety Data Sheet (CSDS) or Material Safety Data Sheet (MSDS)

#### b. Controlled Solid Waste

- i. Collection record
- ii. List of licenses
- iii. List of licensed contractors
- iv. Record of waste transfer

#### c. Radioactive waste

- i. In accordance with the Radiation Protection Act (Chapter 228) and relevant SHENA regulations, the Company shall maintain accurate records for each instance of radioactive waste generation, handling, and disposal. These records shall be made available to the Safety, Health and Environment National Authority (SHENA) upon request.
- ii. The Company shall appoint Radiation Protection Officer (RPO) in fulfilling their statutory duties, including the submission of radioactive waste data, incident reports, and inventory updates to SHENA, as required under the Radiation Protection (Licensing) Regulations and SHENA's Radiation Protection Programme (RPP) guidelines.

## iv. Clinical Waste Collection Areas other than High Risk Specialised Areas

a. The porter shall commence from the CHWS and transport the collection device to the first user area along the designated collection route. The collection device shall be specifically allocated for clinical waste and shall adhere to the relevant specifications and standards.

- b. The porter shall ensure that the lid of the collection device remains closed at all times, except when loading waste bags. Should the collection device need to be left unattended, it shall be securely locked or sealed to maintain the integrity and security of the waste contained therein.
- All sharps containers that have reached the designated fill line shall be collected as follows:
  - i. The user shall ensure that the sharps containers are securely closed and fastened in place.
  - ii. The containers shall be positioned in a designated and secure holding area for collection.
  - iii. The collected sharps container shall be replaced with an empty sharps container of the appropriate size, with the covers securely locked in place.
  - iv. The sharps containers shall be bagged, tagged, and placed in the collection device, as specified for yellow bags.
- d. Yellow bags containing waste shall be collected accordingly as follows:
  - i. The porter shall securely tie the bags using a one-way seal.
  - ii. Tied bags shall be removed from the bag holders, appropriately tagged, and placed into a collection device for transportation to the CHWS.
- e. The bag holders shall be re-lined with a yellow bag of the appropriate size, ensuring that the base of the plastic bag rests securely at the bottom of the bag holder. The porter shall ensure that the bag holder is thoroughly clean and dry prior to re-lining.
- f. Under no circumstances shall unsealed or untagged bags be placed into the collection device. Prior to depositing the collected bags and sharps containers into the collection device, the porter shall request the user to verify the number of bags collected and shall subsequently document the information on the record sheet.
- g. The porter shall then proceed to the next user area and repeat the aforementioned procedure until all user areas along the collection route have been served.
- h. Clinical waste bags shall be collected at a minimum of once per day, or more frequently as required as specified by the Health Facility CEO/SHA. Sharps containers that have reached the fill line shall be collected at the scheduled time of collection.
- i. In addition to the scheduled collections, users may request additional collections as needed. The Company shall respond to such requests within 15 minutes of receipt.

## v. For High Risk Specialised Areas (Operating Theatres, Labour Rooms, Isolation Wards and National Isolation Centre)

- a. Following each instance of operation procedure or delivery, or patient discharge, the personnel of the Company assigned to the specialized area (hereinafter referred to as 'on-site Company personnel') shall be responsible for performing the cleaning and disposing of all clinical waste into a receptacle lined with a yellow bag.
- b. In instances where a wheeled bin or bins are provided by the Company, these shall be placed in the dirty utility room or another location designated by the HWMS Service Facility (hereinafter referred to as the 'holding area') for the storage of clinical waste from the operating theatre, labour room or isolation area:

- i. The on-site Company personnel shall securely seal and label the yellow bag using a one-way plastic seal.
- ii. The user shall affix their signature to the tag, after which the onsite Company personnel shall place the sealed bag into the wheeled bin located at the holding area.
- iii. Filled sharps containers shall be placed in the holding area by the on-site Company personnel and duly recorded.
- iv. Sharps containers shall be securely bagged and appropriately tagged as described in (b.i) and (b.ii) above.
- v. The on-site Company personnel and the user shall jointly document the collected waste on the record sheet. The completed record sheet shall be retained by the on-site Company personnel for audit and traceability purposes.
- c. At the scheduled time of collection,
  - i. The porter shall transport a clean and dry wheeled bin from the CHWS to the holding area.
  - ii. The wheeled bin containing clinical waste (hereinafter referred to as the 'stationed wheeled bin') shall be removed from the holding area and replaced with a clean wheeled bin.
  - iii. The wheeled bin containing clinical waste shall subsequently be removed and transported to the CHWS, following the designated collection route and schedule.
  - iv. Under no circumstances shall the clinical waste from the stationed wheeled bin be transferred into another wheeled bin. The stationed wheeled bin(s) shall be replaced with a clean and disinfectant wheeled bin each time a collection is made by the porter.
- d. For cases where bag holder is provided instead of wheeled bin,
  - The Company personnel shall securely seal the yellow bag and place the sealed bag into the bag holder provided by the Company within the holding area.
  - The porter shall retrieve the clinical waste deposited in the bag holder at the holding area, in accordance with the established collection procedure.
- e. All on-site Company personnel assigned to high-risk areas shall receive specialised training in infection prevention and control (IPC), including PPE protocols, spill response, and handling of infectious waste.
- f. The Company shall ensure that all wheeled bins and bag holders used in specialised areas are:
  - i. Clearly labelled with biohazard symbols
  - ii. Routinely cleaned and disinfected
  - iii. Dedicated for exclusive use in high-risk zones
- g. Any deviation from the approved collection route, schedule, or bin replacement protocol shall be reported immediately to the HWMS Service Facility and documented in the incident log.

#### vi. Weighing

- a. Clinical waste shall be weighed daily at a predetermined time in the clinical waste storage area of the HWMS Service Facility, under the supervision of authorized personnel. The weighing and documentation of the clinical waste shall be conducted accordingly as follows:
  - i. Verify that the weighing machine is calibrated, functional, and in proper working condition.
  - ii. Verify the reading and ensure that the display on the screen shows a zero (0) kg measurement before weighing the waste load:
  - iii. Ensure that all collection and transportation devices to be weighed are securely locked or sealed to prevent tampering or spillage.
- b. Each device shall be weighed to determine the gross weight, and the net weight of the clinical waste shall be calculated by subtracting the tare weight of the device from the gross weight.
- c. Upon completion of the weighing process, the total net weight shall be recorded. The details of the Daily Weight Record (DWR) shall be verified for accuracy by the authorized personnel, who shall confirm by signing in the designated column of the DWR.
- d. Should clinical waste from other Government healthcare facilities be added to any collection or transportation device, the weight shall be recorded in the corresponding column of the DWR. The Company shall provide a copy of the relevant Internal Waste Delivery Record (IWDR). The authorized personnel shall verify that the weight and other details recorded on the DWR align with the information on the IWDR prior to signing the DWR. Both the DWR and IWDR are presented on the following pages.
- The tare weight of the collection/transportation device shall be determined as follows:
  - Each device shall be weighed at the commencement of its life cycle to ascertain its tare weight. This weight, along with the date of determination, shall be duly recorded on the device to facilitate the calculation of the net weight of clinical waste during the weighing process.
  - ii. Should repair work be carried out on the device that may impact the tare weight, such as the replacement of a wheel or cover, the device shall be reweighed, and the updated tare weight, along with the date of determination, shall be duly recorded.
  - iii. Should authorized personnel or Company personnel suspect at any time that the tare weight recorded on the device is inaccurate, a re-determination may be conducted. However, this shall only be performed on clean and empty devices.
  - iv. Upon recording a new tare weight on the device, the previous tare weight and its associated date shall be thoroughly removed to prevent any confusion.

## vii. Chemical Waste, Pharmaceutical Waste and Waste Containing Heavy Metals

a. Prior to collection by the Company, users shall securely seal the bags or close the containers and affix the appropriate labels, which are provided by the Company for collection of waste.

- b. The porter shall begin at the central store and transport the collection device to the first user area along the designated collection route. The collection device shall adhere to the relevant specifications and safety standards, and it must be clean and dry.
- c. The porter shall verify that the bags have been securely sealed and the containers properly closed (with the exception of chemical wastes requiring loose capping to prevent pressure build-up) and appropriately labelled by the users.
- d. The bag holders shall be lined with the appropriate color-coded bag (for Cytotoxic Waste only) of the correct size, and the Company shall ensure that the base of the plastic bags rests securely at the bottom of the bag holder. Additionally, the Company shall ensure that the bag holders are thoroughly cleaned and dried prior to relining.
- e. The porter shall affix tags to all bags and containers (applicable only to Cytotoxic Waste) during collection, prior to placing them into the collection devices for transportation to the CHWS.
- f. The porter shall be responsible for ensuring the security of the waste collected in the collection device.
- g. Pharmaceutical Waste:
  - i. Should the waste be contained in a box, the Company shall ensure that it is securely fastened before placing it into the collection device for transportation to the CHWS.
  - ii. Users shall ensure that Cytotoxic Waste and controlled drug waste are securely sealed, appropriately bagged, and tied prior to collection.
- h. Collection of Heavy Metals (e.g. mercury thermometers, dental amalgam, lead-lined containers) shall be conducted as required using a dedicated and clearly labelled collection device.
- i. Collection shall occur at a minimum of once per week, or more frequently as necessary as specified by Health Facility CEO/SHA and shall be performed using a dedicated collection device, as specified to prevent cross-contamination with other waste streams.

#### viii. Recyclable Material

- a. All recyclable materials shall be collected from the designated holding area and sent to the CHWS using specified collection devices that are clean, clearly labelled, and appropriate for recyclable waste.
- b. Where 3R (Reduce, Reuse, Recycle) wheeled bins are provided at the designated holding areas, these shall be exchanged with the corresponding clean and empty wheeled bins of the same type at the time of collection to ensure continuity of segregation and hygiene.
- c. At the scheduled time of collection by an authorized/licensed recycling contractor, the Company shall ensure that the recyclables are collected by the contractor and the relevant record is filled in accordingly and signed.
- d. Collection shall be at least once a week or frequently as specified by the Health Facility CEO/SHA.

### (2) Supply of Devices and Consumables

#### i. Provision of Manpower

The Company shall provide sufficient manpower to perform all the activities as specified for the Service. The list and minimum requirement of personnel are mentioned in Schedule B.

## ii. Maintenance of Healthcare Waste Management Devices

- a. The Company shall identify devices in need of maintenance and transport them to the CHWS or another suitable location for the required repair and maintenance work. The removed devices shall be replaced with equivalent items that are in good working condition and/or proper state of repair.
- b. The identification of devices requiring repair shall occur during waste collection, the exchange of bag holders for cleaning, or any other HWMS activity conducted at the user area.
- c. Notwithstanding the aforementioned, the user may request the repair or maintenance of an item if it is found to be in a state of disrepair. The Company shall respond within 24 hours by providing a corresponding item that is clean and in good working condition and/or state of repair. Such a request shall be documented on a service request form, with a copy provided to the user. The user shall acknowledge the replacement of user. The user shall acknowledge the replacement of the item by signing the service request form.

## iii. Cleaning of Healthcare Waste Devices

- a. The Company shall ensure that devices removed from user areas for cleaning, such as dirty bag holders, treatment trolley receptacles, and brackets, are replaced with corresponding clean and dry items.
- b. The Company shall maintain these records and present them as evidence that the cleaning has been conducted in accordance with the required frequencies and schedule.
- c. Under no circumstances shall dirty and clean devices be placed in the same collection device simultaneously. However, the same collection device may be used for both clean and dirty devices, provided that the device is thoroughly cleaned and disinfectant after being used to transport dirty items.
- d. The Company shall carry out sanitizing of devices as follows:
  - The Company shall utilize approved disposable disinfectant wipes or towels, which shall then be sprayed with an approved disinfectant. If a paper towel is used, it shall be adequately saturated with the disinfectant.
  - ii. The Company shall then clean the item in accordance with established cleaning principles, i.e., from clean to dirty, until the entire item has been thoroughly cleaned. If necessary, additional wiping may be performed to ensure the item is fully sanitized. Under no circumstances shall a wipe or paper towel be reused for cleaning another item.
  - iii. If the item is visibly contaminated with blood or other bodily fluids, it shall be removed for immediate cleaning, regardless of whether it was scheduled for washing.
- e. The Company shall perform the cleaning of devices using approved detergents and/or disinfectants, in accordance with the procedures outlined under the Cleansing Services. However, the following principles must be adhered to:

- i. Cleaning shall be performed by first removing surface dirt, dust, blood, other bodily fluids, and chemical residues. This process shall involve the use of water and an approved detergent, in conjunction with mechanical action, such as scrubbing.
- ii. For clinical waste devices, cleaning shall be followed, if necessary, by the application of an approved disinfectant.
- iii. The manufacturer's recommendations regarding the dilution ratios, and application methods for detergents and disinfectants, including the required contact time, shall be strictly followed.
- iv. The Company shall ensure that all cleaned devices are thoroughly dried prior to reuse.
- f. Cleaning of the devices shall be conducted either at the CHWS or at designated washing areas within the user area, as agreed upon, as approved by the Health Facility CEO/SHA.

## (3) Storage Services

#### i. General Storage Requirements

- a. All healthcare waste collected from user areas shall be stored in its original packaging or containers prior to being placed in the secondary containment areas of the CHWS.
- b. Given the varying nature of the waste types and the distinct treatment technologies to be applied, the CHWS will require three primary storage areas or facilities. These areas/facilities will be designated for the following waste types:
  - i. Clinical Waste:
  - ii. Chemical and Pharmaceutical Waste
  - iii. Recyclables
- For chemical and pharmaceutical waste, additional secondary containment areas shall be provided to ensure the proper separation of incompatible waste types.
- d. The Company shall develop a comprehensive checklist and conduct regular inspections of the CHWS to ensure proper waste management and the maintenance of the storage facility.
- e. The CHWS shall remain securely locked at all times, except when it is attended by authorized Company personnel.

## ii. Maintenance and Management of Central Healthcare Waste Store (CHWS)

- a. The Company shall ensure the proper management of the CHWS, which includes, but is not limited to, the following:
  - Ensuring that adequate signage is displayed in relevant areas of the CHWS. This includes the marking and labelling of areas designated for storing different types of healthcare waste, as well as other areas such as the *Bin Washing Area, Clean Collection Device Area, Filled Collection Device Area, etc.* Relevant symbols, warning signs, and required personal protective equipment (PPE) shall also be prominently displayed.
  - 2. Ensuring that all required tools and equipment are in proper working condition.

- 3. Ensuring that all scheduled wastes are properly contained and, where feasible, elevated on pallets to prevent contact with water or spillage.
- 4. Ensuring that all receptacles are securely closed when not in use.
- Ensuring that all containers containing liquid chemical waste are tightly sealed to prevent leakage, evaporation, or exposure except in cases where specific chemical waste requires loose capping to prevent pressure build-up, as per safety guidelines and material safety data sheets (MSDS).
- 6. Ensuring that all receptacles or containers are properly secured when stacked. Stacking shall be done in a stable manner to prevent tipping, spillage, or structural damage.
- 7. Ensuring that storage capacity is sufficient in accordance with specifications, and that it is maintained for the duration of storage until scheduled transfer to the relevant treatment or disposal facility, subject to the availability of space.
- 8. Ensuring the security of the CHWS as follows:
  - i. The store shall be secured when not in use. Under no circumstances shall the store be left unlocked or unattended by HWMS Service Fafcility or Company personnel.
  - ii. The key to the CHWS shall be securely retained by the Company.
- 9. Ensuring that only healthcare wastes generated by the HWMS Service Facility are stored in the CHWS.
- 10. Ensuring an adequate supply of spillage kits, emergency eye wash stations, first aid kits, etc.
- 11. Ensuring that personnel manage all categories of healthcare waste in compliance with procedures outlined in the Contract, standard operating procedures, best practices, and all safety and hygiene protocols.
- 12. Ensuring that only authorized personnel and licensed contractors are permitted to enter the CHWS and providing access to government authorities or other regulatory bodies for inspection, audit or investigation purposes.
- 13. Ensuring that personal protective equipment (PPE) is available, firefighting equipment is maintained, and exits are not obstructed. Fire extinguishers shall be compatible with and appropriate for the types of waste stored.
- 14. Ensuring that adequate information is provided for staff reference and displayed when necessary.
- 15. Ensuring that all relevant staff members are trained to manage waste spillages appropriately.
- 16. Prohibiting eating, drinking, or smoking in or around the CHWS.
- 17. Ensuring that the floors are free of major cracks and gaps.
- 18. Conducting weekly inspections of hazardous waste containers.

- b. Maintenance of the CHWS shall encompass the following responsibilities:
  - 1. Ensuring the cleanliness and overall condition of the infrastructure is maintained in a state of good repair. This includes the drains, surrounding areas, and other related infrastructure.
  - 2. Developing and implementing effective pest control measures. Comprehensive records shall be maintained to confirm that the necessary pest control actions have been performed.
  - 3. Promptly managing spillages or leaks in accordance with established procedures.
  - Adhering to the specified cleaning frequency as outlined in the table below, ensuring compliance with relevant procedures. Notwithstanding this schedule, cleaning shall be conducted as required.
  - 5. Complying with the standards of cleanliness, facility maintenance, pest control, and grounds maintenance as outlined in the pertinent sections of the Contract.
  - To mitigate the risk of any adverse reactions, the chemical waste store shall be maintained with continuous ventilation at all times.
  - 7. The Company shall maintain detailed cleaning records, which shall be made available for inspection upon request by the Health Facility CEO/SHA, or authorized personnel.
- f. If cold stores are provided:
  - 1. The temperature shall be maintained at or below 6°C.
  - 2. Temperature monitoring shall be conducted as follows:
    - i. Daily, whenever the refrigeration facility is in use.
    - ii. Monthly, if the refrigeration facilities are provided solely as a contingency measure.
  - 3. Temperature readings shall be recorded in the Clinical Waste Central Store Daily Temperature Log.
  - 4. The maximum allowable storage period for clinical waste in the CHWS facility shall not exceed seven (7) days.

## (4) Transportation of Healthcare Waste

## a. Transportation Service

- i. The Company shall ensure that clinical waste is transported to a licensed treatment facility on a daily basis to prevent accumulation and mitigate infection risks, unless a cold store is provided at the HWMS Service Facility. A transportation schedule shall be proposed by the Company for approval by the Health Facility CEO/SHA and shall be documented in the HSIP and adhered to strictly.
- ii. Should the transportation of clinical waste be scheduled to occur after office hours, the Company shall propose a mechanism for verifying the transportation time. This proposal shall be submitted to the Health Facility CEO/SHA for approval and subsequently documented in the HSIP.

- iii. The Company shall coordinate with licensed or approved contractors to establish the frequency and schedule for the transportation of other scheduled wastes and recyclables. This schedule shall be proposed by the Company for approval by the Health Facility CEO/SHA and documented in the HSIP.
- iv. The Company shall ensure the following during the transportation of all scheduled wastes:
  - a. The waste consignment is properly contained and labelled prior to being loaded onto transportation vehicles.
  - b. All relevant consignment notes are completed accurately and in full, including the signatures of the appropriate personnel.
- v. The tare weight of the collection/transportation device shall be determined as follows:
  - a. Each device shall be weighed at the commencement of its life cycle to determine its tare weight. This weight, along with the date of determination, shall be recorded on the device to facilitate the accurate calculation of the net weight of clinical waste during the weighing process.
  - b. In the event that repair work is carried out on the device, which may affect its tare weight, e.g., replacement of a wheel or cover, the device shall be reweighed, and the updated tare weight, along with the corresponding date, shall be recorded.
  - c. If authorized personnel or Company representatives suspect that the tare weight recorded on the device is inaccurate, a redetermination may be conducted. This re-determination shall only be performed on clean and empty devices.
  - d. When a new tare weight is recorded, the previous tare weight and date shall be completely erased to prevent confusion.
- vi. The delivery of waste from isolated government healthcare facilities shall be managed as follows:
  - a. Personnel from these facilities shall be responsible for transporting the clinical waste to the CHWS. The frequency of transportation shall be determined by the Health Facility CEO/SHA.
  - b. Government vehicles designated for the transportation of goods may be utilized for this purpose. Government healthcare personnel shall ensure that the clinical waste is securely contained throughout the transportation process.

#### b. Other Schedules Waste

- Other scheduled waste collected from user areas shall be stored at the CHWS until it is transported to an appropriate treatment facility.
- The collection/transportation devices shall be securely secured at all times.
- iii. Other scheduled waste shall be weighed at an agreed-upon date and time at the CHWS by the Company, under the supervision and verification of authorized personnel. The weighing and recording of the waste shall be documented in the Other Scheduled Waste Weighing Record (SWW).

#### c. Transportation Vehicle

- i. The Company shall ensure that all transport vehicles used for the collection and transportation of healthcare waste are properly maintained and comply with the Road Traffic Act (Chapter 68) and all applicable Land Transport Department (LTD) regulations governing the use of commercial vehicles, must be licensed and registered under LTD.
- ii. Should the transportation of clinical waste be scheduled to occur outside of regular office hours, the Company shall propose a mechanism for verifying the transportation time. This proposal shall be submitted to the Health Facility CEO/SHA for approval and documented in the HSIP.
- iii. The Company shall coordinate with licensed or approved contractors to establish the frequency and schedule for the transportation of other scheduled wastes and recyclables. The proposed schedule shall be submitted by the Company for approval by the Health Facility CEO/SHA and documented in the HSIP.
- iv. The Company shall ensure the following during the transportation of all scheduled wastes:
  - 1. The waste consignment is appropriately contained and labelled prior to being loaded onto transportation vehicles.
  - 2. All relevant consignment notes are fully and accurately completed, including the signatures of the appropriate personnel.

## d. Transport Vehicle

- i. The Company shall ensure that all transport vehicles used for the collection and transportation of healthcare waste are properly maintained and comply with the Road Traffic Act (Chapter 68) and all applicable Land Transport Department (LTD) regulations governing the use of commercial vehicles, must be licensed and registered under LTD.
- ii. The transportation of radioactive healthcare waste is conducted in full compliance with the Radiation Protection Act (Chapter 228) and the requirements set by the Safety, Health and Environment National Authority (SHENA). This includes the use of licensed transporters, approved packaging, and secure containment, as outlined in the Radiation Protection Programme (RPP) and endorsed by the appointed Radiation Protection Officer (RPO).
- iii. Requirement for healthcare waste transport vehicles are as follows:
  - a. Tail gate metal bonded trucks with a total load capacity equivalent to the waste load to be collected from HWMS Service Facilities and transported to the dedicated treatment facilities. In the event that any one of the Healthcare Waste Transport Vehicle fails to be used in the performance of the Contract Services for any reason whatsoever, the Company shall provide a replacement vehicle to ensure that the provision of the Contract Services is not disrupted.
  - b. Equipped with:
    - 1. Rear tail lift hydraulic system.
    - 2. Side railings (grooved) to secure waste bags/containers in place.
    - 3. Rubber bump bar.
  - Painted in colour and biohazard warning signs as well as carries the logo of the Company in the manner and form to be approved by MOH.

- d. Properly maintained and in good condition. The Company shall further ensure that the Healthcare Waste Transport Vehicles is sufficiently insured for the purpose of carrying out the Contract Services.
- e. Supplied and installed with Global Positioning System (GPS) for fleet tracking:
  - The Company shall supply and install Global Positioning System (GPS) complete with vehicle and passenger tracking and monitoring system application for fleet tracking at all the dedicated transportation vehicles.
  - 2. The system shall be able to track vehicle information and passenger information and alerts in real time basis.
  - The entire set of vehicle and passenger tracking and monitoring system application need to be web based and must be accessible through the internet using a computer, tablet and or smartphone.
  - 4. The Company shall provide monitoring and report of the Service Transportation Performance Report monthly /as when required.
  - 5. The Company shall ensure the functionality of the GPS at all time. Any malfunctioning of the system, the Company shall inform with immediate notice and alternative monitoring system must be in place. Without any of the monitoring system in place, the vehicle is prohibited from carrying out its task.
  - 6. The Company shall pay for all licensing, upgrading, maintenance and upkeep to the software and hardware of the system.
  - 7. The Company shall provide tracking report to respective HWMS Service Facility on a monthly basis.

#### e. Drivers

- The Company shall provide organization structure, indicating specific delegation of authority, responsibility, contact number and other necessary essential information of all personnel involved in healthcare waste transportation services.
- ii. The Company shall submit list of approved transportation vehicle with photograph (front, rear and side view).
- iii. The Company shall submit list of drivers and their experience.
- iv. The Company shall regularly train all drivers and any assistants to the driver to carry out the duty in a safe and professional manner and to be able to manage any possible emergency situation. A copy of the yearly training schedule to be submitted.
- v. The Company shall provide uniform and appropriate personal protective equipment (PPE) to the driver when performing their task. The complete PPE shall include apron, half face mask and glove.
- vi. The Company shall provide Hepatitis B immunization and annual urine screening for all the drivers.

- vii. The Company shall provide facilities such as workshop, washing area, wheeled bin parking and other related facility for the operations to function effectively.
- viii. The Company shall provide spillage kit and emergency equipment.

#### (5) Spillage Services

## i. General Requirements

- a. Spillage management, whether conducted by users or the Company, shall always be performed using the appropriate personal protective equipment (PPE) and necessary tools to prevent injury, infection, and exposure to harmful substances.
- b. The spill area shall be cordoned off with tape and clearly marked with appropriate warning signs to prevent access by other users, Company personnel, patients, and visitors.
- c. Any individual contaminated as a result of the spillage shall be promptly attended to in accordance with the HWMS Service Facility's established policies and procedures.
- d. Should a spill of volatile, flammable, highly toxic, or reactive chemicals occur, immediate notification shall be given to all individuals in the vicinity. In the case of flammable chemicals, ignition sources shall be removed, and the area shall be adequately ventilated.
- e. Where possible establish exhaust ventilation and vent vapours to outside of building.
- f. Use appropriate spill kit.
- g. The name and contact details of both the designated emergency responder and the external emergency responder shall be documented in the HSIP and prominently displayed in the relevant user areas, the CHWS, and the Company office.

#### ii. Procedures for Management of Spillage

### a. Clinical Waste Spillage

- Any individual responsible for a spillage of clinical waste shall immediately notify the Company by phone using a number provided by the Company at each HWMS Service Facility. This contact number shall be included in the HSIP. The individual shall also promptly report the spillage to the HWMS Service Facility personnel in charge of the affected user area, as well as to the Infection Control Officer.
- 2. The Company shall respond within 10 minutes of receiving the call and initiate spillage management procedures immediately.
- 3. Upon arrival at the site, the Company shall promptly contain the spillage and secure the area using plastic tape and appropriate warning signs.
- 4. The spill shall be contained and disinfected using absorbent materials and disinfectants approved by the Government.
- 5. The spilled clinical waste, along with the absorbent materials, shall be collected and placed into a yellow colour-coded bag(s) by the Company;

- 6. In the case of a small spillage, the clinical waste and absorbent may be placed into the nearest bag holder for subsequent collection by a porter.
- 7. In the case of a large spillage, the clinical waste and absorbent shall be placed into a yellow colour-coded bag, securely sealed, tagged, collected, and properly recorded.
- 8. Once the spillage has been contained and removed, the affected area shall be cleaned in accordance with the cleansing procedures outlined in the MAP for Cleansing Services.
- Upon completion of the operation, the Company shall remove the plastic tape, warning signs, and any tools or equipment from the site.
- 10. A record of the spill incident, including the affected user area, the requesting party, and the response time, shall be maintained by the Company, with verification of spill management completion provided by the user. In the event that a spill occurs as a result of the Company's actions during the collection of clinical waste:
  - a. The Company shall promptly contain the spill and secure the area in accordance with the procedures described in No. 3 and 4.
  - b. The Company shall notify the HWMS Service Facility personnel responsible for the user area and/or the Infection Control Officer regarding the incident.
  - c. The Company shall then proceed with managing the spill and conducting the necessary clean-up of the affected area in accordance with procedures No. 5 7.
- 11. Should a spill occur within the clinical waste storage area, the Company shall promptly manage the spill and conduct the necessary clean up in accordance with the procedures outlined above.

#### b. Infectious Waste Spillage

- Any individual responsible for the spillage of infectious clinical waste shall promptly neutralize the waste by applying the appropriate disinfectant. The individual shall then notify the Company for the management of the spillage.
- 2. The individual shall also report the incident to the HWMS Service Facility personnel responsible for the affected user area, as well as to the Infection Control Officer.
- 3. The Company shall respond promptly and manage the spillage in accordance with established procedures.

#### c. Clinical Waste in an Ambulance

- 1. Any spillage of clinical waste occurring within an ambulance shall be managed by ambulance personnel in accordance with the procedures outlined above.
- Upon arrival at the HWMS Service Facility, the bagged spillage shall be disposed of in the nearest waste receptacle designated for clinical waste within the Accident and Emergency Department.

#### d. Hazardous Waste Spillage

- 1. Any individual responsible for the spillage of other scheduled wastes shall take immediate action to alert others, contain the spill, and neutralize the hazardous components of the waste by utilizing the appropriate absorbent and neutralizing agents as specified in the CSDS/MSDS and in accordance with standard operating procedures and best practices. In the event that the individual lacks the necessary expertise in spill management, they shall promptly contact the designated emergency responder and/or Safety Officer.
- 2. The individual shall also promptly report the spillage to the HWMS Service Fafcility personnel responsible for the affected user area, as well as to the emergency responder and/or Safety Officer.
- 3. The individual shall then place the absorbed and neutralized hazardous waste into the appropriate color-coded bag or container, which shall subsequently be labelled and securely sealed.
- 4. The individual shall then contact the Company, which shall respond within 10 minutes. The Company will subsequently tag, collect, and document the hazardous waste.
- 5. Once the spillage has been contained and removed, the affected area shall be cleaned in accordance with the cleaning procedures outlined in the MAP for Cleansing Services.
- In the event that a spill of other scheduled wastes occurs as a result of the Company's actions during waste collection or a container leak is identified at the CHWS, the following procedure shall be adhered to:
  - a. The general requirements shall be followed.
    - i. The porter shall immediately notify their direct supervisor.
    - ii. The supervisor shall then contact the relevant Head of Department and the emergency responder/Safety Officer. Containment and neutralization measures shall be implemented by the Company in coordination with the emergency responder/Safety Officer, in accordance with procedures suitable for the specific spill and utilizing the appropriate spill response kits.
- 7. The absorbed and neutralized spill shall be placed in a suitable container, relabelled, and retagged if necessary.
- 8. If the spill exceeds 5 litres and cannot be safely managed by the Company and emergency responder/Safety Officer, an external emergency responder shall be contacted for assistance.

## e. Broken Glass During Spillage Management

- 1. If the broken glass is contaminated with clinical waste, it shall be placed into a sharps container, and the lid shall be securely closed for safety purposes.
- 2. If the broken glass is contaminated with hazardous chemical waste or cytotoxic waste:
  - a. The broken glass shall be placed into a sharps container, which shall then be sealed and labelled as "Contaminated Broken Glass" by the user, including the name or type of waste.

- b. The sharps container shall be tagged, collected, and recorded by the Company. In the event of concerns regarding leakage, the container may be placed in a leak-proof bag or positioned on a tray to contain any potential spillage.
- 3. If the broken glass is not contaminated with clinical waste, hazardous chemical waste, or cytotoxic waste, it shall still be placed in a heavy-duty cardboard box lined with plastic or a puncture-proof plastic container and securely sealed to prevent potential injury. Such broken glass shall be collected as general waste, not as scheduled waste.

#### f. Management of Spillage on Public Road

- 1. Spillage of clinical waste shall be managed in compliance with applicable regulations, guidelines established by relevant authorities, or in accordance with recognized best practices.
- 2. In the event of a clinical waste spillage:
  - a. The Company shall promptly notify the JASTRe, the relevant HWMS Service Facility and MOH. If necessary, additional notifications shall be made to highway and other relevant authorities.
  - b. The Company shall undertake the following actions to manage the spillage:
    - i. Utilize personal protective equipment as recommended.
    - ii. Warn individuals who may be at risk.
    - iii. Secure the affected area using tape and warning signs.
    - iv. If required, dispatch replacement vehicle(s) equipped with clean transportation devices to the spillage site.
    - v. Contain the collected spillage in yellow bags and deposit them into the transportation devices.
    - vi. Disinfect any contaminated or potentially contaminated areas to the satisfaction of the relevant authorities.
    - vii. Remove the tape and warning signs, and notify all affected parties upon completion of the clean-up process.
- 3. If a different vehicle and/or additional transportation devices are required for the onward journey to the treatment facility, the Company shall prepare a new set of consignment notes.
- 4. The Company shall submit an incident report that shall:
  - a. Be accompanied by relevant copies of the new consignment note, if applicable, as well as the original consignment note.
  - b. Include an assessment of the environmental impact.
  - c. Be submitted within two weeks of the incident.
  - d. Be submitted to the relevant HWMS Service Facility and Director of the Health Department.
  - e. The Company shall also report the incident to the JASTRe in a manner directed by the JASTRe.
- 5. In the event of a spillage of other scheduled waste, the Company shall ensure, through its service contract with the licensed contractor, that:
  - a. The contractor notifies the Company of any spillage occurring during the transfer of waste to the treatment facility.
  - b. The contractor submits an incident report, along with relevant copies of any new consignment notes, to the Company. The report shall be provided within two weeks of the incident.

c. Upon receipt of the report from the contractor, the Company shall promptly submit a copy to the relevant HWMS Service Facility, and the Ministry of Health.

## (6) Additional works outside the scope

The Company shall identify additional works outside the scope and propose to the Government for approval The project shall be completed within the agreed period.

## 3.0 LIST OF SCHEDULES

Schedule A	HWMS Service Facilities
Schedule B	Manpower Requirements
Schedule C	Service Information and Management System (SIMAS)
Schedule D	Key Performance Indicators
Schedule E	Loading and Unloading Locations
Schedule F	Window Period for Healthcare Waste Collection

#### References:

- 1. Guideline on Health Care Waste Management 2019 (link: <a href="https://moh.gov.bn/wp-content/uploads/2024/10/Guideline-on-Health-Care-Waste-Management.pdf">https://moh.gov.bn/wp-content/uploads/2024/10/Guideline-on-Health-Care-Waste-Management.pdf</a>);
- 2. Environmental Protection and Management Order, Chapter 240 (S 63/2016) (Link: <a href="http://www.env.gov.bn/Shared%20Documents/EPMA%20CHAPTER%20240.pdf">http://www.env.gov.bn/Shared%20Documents/EPMA%20CHAPTER%20240.pdf</a> );
- 3. Hazardous Waste (Control of Export, Import and Transit) Order 2013 (link: https://www.agc.gov.bn/AGC%20Images/LAWS/Gazette\_PDF/2013/EN/s094.pdf);
- 4. Pollution Control Guidelines for Industrial Development in Brunei Darussalam, 2003 (link: <a href="http://mod.gov.bn/SiteCollectionDocuments/Environmental%20Guidelines/industryguideline\_brunei.pdf">http://mod.gov.bn/SiteCollectionDocuments/Environmental%20Guidelines/industryguideline\_brunei.pdf</a>)

#### **END OF DOCUMENT**

## **SECTION 3**

## **TENDER SUBMISSION FORMS**

#### CONTENTS

- 1. SCHEDULE A TENDER FORM
- 2. SCHEDULE B PRICE PROPOSAL FORM
- 3. SCHEDULE C INFORMATION SUMMARY
- 4. SCHEDULE D SUB-CONTRACTS
- 5. SCHEDULE E COMPANY BACKGROUND
- 6. SCHEDULE F REFERENCES
- 7. SCHEDULE G LETTER OF DECLARATION
- 8. SCHEDULE H SITE VISIT FORM

## **SCHEDULE A**

## **TENDER FORM**

To:

## TENDER REFERENCE NO.: KK/217/2025/MOH(TC)

# INVITATION TO TENDER FOR THE PROVISION OF HEALTHCARE WASTE SERVICES FOR HOSPITALS AND HEALTH FACILITIES OF THE MINISTRY OF HEALTH FOR A PERIOD OF TEN (10) YEARS

TENDEF	R OF (name of tenderer)	
Compan	y/Business Registration No	
Tender Closing Date:		
1	(carrying out all scopes of the s	with the proposed Healthcare Waste Services to be offered services related to <b>the disposal of healthcare waste to all</b> as well as all the associated activities and resources for the
2.		

#### SCHEDULE B - PRICE PROPOSAL FORM

#### PRICE OFFER AND CONDITIONS

# 1. Price Proposal

The price for the services shall be submitted as part of your offer.

## 2. Price Conditions and Assumptions for Price Calculation

The following conditions and assumptions will apply to the calculation of your price offer:

# i. Existing Collection Devices

The existing collection devices on-site may be used immediately and shall be taken over for maintenance. Any additional items or new devices required at the respective facilities will have to be supplied by the Company as specified in the schedule. At the conclusion of the contract, the successful bidder shall return all devices taken over or GFR in good working condition.

#### ii. Estimated Healthcare Waste Load

The estimated daily healthcare waste to be processed from all service facilities is 3,000 kg.

# iii. Pricing Based on Waste per Kg

Capital expenditure shall be apportioned to the respective lifespan period and translated into Cost/Kg.

The total price shall be calculated based on the waste per kilogram processed.

NO.	SCOPE / ITEM	PRICE		
Load	Estimate healthcare waste Load 3000 kg. / day @ 800 ton/yr			
Price	Proposal For One Year Of Service			
1.	General management			
2.	Healthcare Waste Collection			
3.	Supplies of tools, devices and consumables			
4.	Portering services			
5.	Transportation services			
6.	Treatment Plan			
TOTAL PRICE PER YEAR				
TOTAL PRICE PER MONTH				
TOTAL P	TOTAL PRICE PER/KG			

- 1. We offer and undertake on your acceptance of our Tender to provide the above-mentioned services in accordance with your Invitation To Tender.
- 2. Our Tender is fully consistent with and does not contradict or derogate from anything in your Invitation To Tender. We have not qualified or changed any of the provisions of your Invitation To Tender.
- 3. We shall execute a formal agreement in the appropriate form set out in **Section 4 Contract** together with such further terms and conditions, if any, agreed between the Government and us.
- 4. OUR OFFER IS VALID FOR <u>TWELVE (12) CALENDAR MONTHS</u> FROM THE TENDER CLOSING DATE.
- 5. When requested by you, we shall extend the validity of this offer.
- 6. We further undertake to give you any further information which you may require.

	Dated this	day of	2025.
Signature of Name: Designation:	authorised officer o	f Tenderer	Tenderer's official stamp:

# **SCHEDULE C - INFORMATION SUMMARY**

- 2.1 Tenderers shall provide in this Schedule the following information:
  - a. Management summary
  - b. Company profile (including Contractor and sub-contractor(s), if any)
  - c. Years of experience (as of the Tender Closing Date) of the Contractor and sub-contractor(s) in:
    - Providing healthcare waste management services
  - d. Other information which is considered relevant

# SCHEDULE D - SUB-CONTRACTS

- 3.1 Tenderers shall complete Table 3.1 with information about all the companies involved in the provision of the services and items specified in this tender. This shall include details about the Contractor and each sub-contractor involved, as well as their respective responsibilities.
- 3.2 Tenderers shall also indicate in Table 3.1 any alliance relationship established with each subcontractor. An alliance is defined as a formal and binding business relationship between the allied parties.

Table 3.1 - Responsibility Table

		Alliance Relationship between Contractor and Sub-contractor(s)		
Company Name	Responsibility Description	Alliance Exists? (Y/N)	Date Established	Alliance Description
Contractor				
		Not Applicable	Not Applicable	Not Applicable
Sub-contractor(s)				

# SCHEDULE E - COMPANY'S BACKGROUND

4.1	Each of the companies involved in this tender, including Contractor and sub-contractor(s) (if
	any), shall provide information on the company's background, scope of operations, financial
	standing and certified copy of its Certificate of Incorporation or Certificate of Registration (as
	the case may be).

#### **SCHEDULE F - REFERENCES**

5.1 Tenderers shall submit a list of customers in Table 5.1 to whom the Contractor has provided similar services and items as specified in this tender in the recent 5 years as of the Tender Closing Date.

Table 5.1 References of previous customers

Customer Name and Address	Customer Type (Govt or Quasi Govt)*	Contact Person	Title	Contact Number, Fax Number and E-mail Address

\*Note: Tenderers shall indicate whether the customer is a Government or Quasi Government organisation. A Quasi Government is defined as an organisation which (1) is managed and controlled by the Government; or (2) has at least 50% shares being held by the Government. Please leave the column blank if the customer is neither a Government or Quasi Government organisation.

- 5.2 The Ministry of Health shall treat all the information submitted under this schedule in strict confidence.
- 5.3 The Ministry of Health reserves the right to contact the references for tender assessment purposes.

# **SCHEDULE G - DECLARATION**

7.1 Tenderers shall complete and submit the Declaration form below.

<u>PENGAKUAN INTEGRITI PENENDER</u> <u>TENDERER'S INTEGRITY DECLARATION</u>

# SCHEDULE H - SITE VISIT FORM

COMPANY NAME	:	
DATE OF SITE VISIT	:	
	pany has made a Site Visit to the ware requirement(s) and all specification	
I (My Company) also agree no damage(s) occur during the con	ot to make any additional claim to Natract period.	MOH should any accident(s) or
CONTRACTOR'S SIGNATURE	<u> </u>	
_		
NAME:		
DATE:		COMPANY STAMP
FOR OFFICIAL USE ONLY		
VERIFIED BY S.O./O.I.C.		
NAME:		
DATE:		DEPARTMENT STAMP

The Contractor must fill in this form and obtain signature from the S.O./O.I.C. as verification for having visited the Site. Failing to do so will lead to **disqualification** from this Tender.

# Detailed Device Specifications for Storage, Consumables and Devices: Appendix 'B'

## HWS001 SPECIFICATION FOR INFECTIOUS CLINICAL WASTE BAGS

- 1. The nominal size of these bags shall be 30 liters and shall be big enough for the bag to rest at the base of the respective bag holder and to be folded down over the lip of the bag holder.
- 2. The bags shall be made of polyethylene with a minimum gauge size of 55 microns for low density (LDPE) and 35 microns for high density (HDPE).
- 3. The bags shall be able to withstand autoclaving of up to a maximum autoclave temperature of 132°C.
- 4. The bags shall be leaking proof and puncture resistant and withstand rough handling and shall not be easily torn.
- 5. The bags shall be provided with approved bag ties.
- 6. The bags shall be blue in colour and clearly marked with words in appropriate size and biological hazard symbol in black ink as follows:

# SISA KLINIKAL UNTUK AUTOKLAF DAN DILUPUS

#### **BAHAYA**

KEMENTERIAN KESIHATAN



Minimum 50 mm X 50 mm for biohazard symbol)

## HWS002 SPECIFICATION FOR CLINICAL WASTE BAGS

- 1 The nominal size of plastic bags shall be as follows:
  - 1.1. 5 liters
  - 1.2. 30 liters
  - 1.3. 100 liters
- Notwithstanding the sizes listed above the plastic bag shall be big enough for the bag to rest at the base of the respective bag holder and to be folded down neatly over the lip of the bag holder.
- The bags shall meet British Standard 6642 : 1985 or any other equivalent standard as approved by the Government or SIRIM.
- 4 All supply of plastic bags shall have valid certificate issued by SIRIM or other equivalent authorities to show compliance to standards specified for this project.
- The bags shall be made of polyethylene with a minimum gauge size of 55 microns if of low density (LD'PE) and 35 microns if of high density (HDPE).
- The bags shall be leaking proof and puncture resistant and withstand rough handling and shall not be easily torn.
- The bags shall be provided with approved one-way plastic ties for sealing the bags.
- The bags shall be yellow in colour and clearly marked with words in appropriate size and biological hazard symbol in black ink as follows:

#### SISA KLINIKAL UNTUK DILUPUS

**BAHAYA** 



(Minimum 50 mm X 50 mm for biohazard symbol)

## HWS003 SPECIFICATION FOR CYTOTOXIC WASTE BAGS

- 1. The nominal size of bags shall be as follows:
  - 1.1 30 liters
  - 1.2 100 liters
- 2. Notwithstanding the sizes listed above the bag shall be big enough for the bag to rest at the base of the respective bag holder and to be folded down neatly over the lip of the bag holder.
- 3. The bags shall meet British Standard 6642 : 1985 or any other equivalent standard as approved by the Government or SIRIM.
- 4. All supply of plastic bags shall have valid certificate issued by SIRIM or other equivalent authorities to show compliance to standards specified for this project.
- 5. The bags shall be made of polyethylene with a minimum gauge size of 55 microns if of low density (LDPE) and 35 microns if of high density (HDPE).
- 6. The bags shall be leaking proof and puncture resistant and withstand rough handling and shall not be easily torn,
- 7. The bags shall be provided with approved one-way plastic ties for sealing the bags.
- 8. Bags for cytotoxic waste shall be purple in colour clearly marked with words in appropriate size and the toxic symbol in black ink as follows:

# SISA SITOTOKSIK UNTUK DILUPUS

# **BAHAYA**



(Minimum 50 mm X 50 mm for biohazard

## HWS004 SPECIFICATION FOR RECYCLEBLE WASTE MATERIAL BAGS

- 1. The nominal size of bags shall be as follows:
  - 1.1. 30 liters
  - 1.2. 50 liters
  - 1.3. 100 liters
- 2. Notwithstanding the sizes listed above the bag shall be big enough for the bag to rest at the base of the respective bag holder and to be folded down neatly over the lip of the bag holder.
- 3. The bags shall meet British Standard 6642: 1985 or any other equivalent standard as approved by the Government or SIRIM.
- 4. All supply of plastic bags shall have valid certificate issued by SIRIM or other equivalent authorities to show compliance to standards specified for this project.
- 5. The bags shall be made of polyethylene with a minimum gauge size of 55 microns if of low density (LDPE) and 35 microns if of high density (HDPE).
- 6. The bags shall be leaking proof and puncture resistant and withstand rough handling and shall not be easily torn.
- 7. The bags shall be provided with approved ties for sealing the bags.
- 8. The bags shall be black/transparent for recyclable items.

#### HWS005 SPECIFICATION FOR CLINICAL WASTE BAG HOLDERS

- 1. Bag holders are on-site receptacles for temporary storage of clinical wastes prior to *collection* and *are* to be supplied and located at user areas.
- 2. Bag holders are to be lined with yellow colour coded bag before being used to store waste.
- 3. The bag holder shall be an enclosed frame or container and be rigid in construction.
- 4. The bag holder shall have smooth surfaces so that:
  - 4.1 The bag holder can be easily cleaned, disinfected, drained and dried.
  - 4.2 The bag holder will not tear waste bags.
  - 4.3 The bag holder will not harbour particles of waste.
- 5. The bag holder shall be free standing but not on wheels.
- 6. If the base and/or frame of the bag holder are made of metal, it shall be provided with rubber stoppers to prevent contact with the floor and possible rusting and staining.
- 7. The bag holder shall have dimensions compatible with the size of the bag.
- 8. The bag holder shall be provided with foot pedal for hands-free operation and shall have low noise, self-closing lid.
- 9. The bag holder shall be clearly marked with words in appropriate size and relevant hazard symbols as described in HWS002.
- 10. The bag holder shall have markings on the cover as well as the body.
- 11. For specialised areas, a collection device may be used as an on-site storage receptacle for clinical waste. See HWS012.

# HWS006 SPECIFICATION FOR TREATMENT TROLLEY RECEPTACLES BRACKET

- 1. The bracket shall be resistance to corrosion and abrasion
- 2. The bracket shall be fabricated with 3mm thickness mild steel.
- 3. The bracket shall be light and simple to use
- 4. The bracket shall be for various types of treatment trolleys
- 5. The bracket shall be adjustable bracket to secure and fit receptacles
- 6. The bracket shall be yellow or grey in colour
- 7. The bracket shall be painted with two (2) coats of rust preventive primer. Prior to painting, all fabrication is to be completed and surfaces are clean of rust, moisture, grease, burrs and other imperfections.

#### HWS007 SPECIFICATION FOR SHARP CONTAINER

- 1. The nominal size of sharp containers shall be:
  - 1.1 2.5 liters
  - 1.2 5 liters
  - 1.3 10 liters
  - 1.4 20 liters
  - 1.5 2.3 liters for trocar

Notwithstanding the sizes listed above the container shall be big enough to deposit large sharp or the trocar with the cover assembled in place.

- 2. The sharp container shall:
  - 2.1 Be of sufficient thickness and of robust construction to be durable, leak resistant and puncture resistant imposed during normal use, assembly and installation, closure, handling, storage, (transportation and repeated assembly and disassembly. Durability and puncture resistance should remain unaffected by moderate variations in temperatures during use, storage and transportation.
  - 2.2 Be easily secured when filled with no risk of injury. Once finally closed and secured it shall be tampering proof.
  - 2.3 Be easily assembled or supplied assembled.
  - 2.4 Be stable when placed on a horizontal surface or when used as described in the product specification or label.
  - 2.5 Be designed so that it is easy to use.
  - 2.6 Be designed to:
    - 2.6.1 Facilitate one-hand discarding of all types of sharp including butterflies, trocars and bulky sharp as well as safe depositing of sharp.
    - 2.6.2 Minimize exposure to contents and hand injury during use, handling and closure of the device. Prevent hand access into the container.
    - 2.6.3 Prevent removal of sharp from the container.
    - 2.6.4 Prevent spillages of the contents while in use in the intended upright position, during the closure and sealing process, and during transportation.
    - 2.6.5 Minimize any catching or snagging of sharp during insertion of the sharp into the container and ensure that sharp discarded are dropped into the body of the container.
  - 2.7 Have a handle which shall be:
    - 2.7.1 Robust to avoid breaking and should not be easily detached during use, handling, storage and transportation.
    - 2.7.2 Placed in a position which would not be close to the disposal opening when the handles are used.

#### 2.7.3 Positioned above the full-fill level

- 3. Written instructions on its assembly (if required) and its use shall be provided by the manufacturer.
- 4. The colour of containers shall be predominately yellow and be clearly marked with
- 5. A horizontal line to indicate when container is filled to between 70% and 80% of the maximum volumes of the container together with the words: "JANGAN ISI MELEBIHI HAD INI"
- 6. Sharp containers should meet Malaysian Standard EN ISO 23907:2012 or any other standards.
- 7. Sharp containers shall preferably be products registered with SIRIM and listed in the "Senarai Bahan/Barangan Buatan Tempatan" produced by the Ministry of Finance and SIRIM or on the "Malaysian Certified" website.
- 8. Where possible reusable sharp containers shall be supplied in the interest of the environment. If reusable sharp containers are not available locally and not listed as mentioned above, the Company shall propose suitable products for approval by the Government.

SISA TAJAM SAHAJA (not less than 7inm high)

BAHAYA (not less than 10mm high)

KEMENTERIAN KESIHATAN



(Minimum 50mm X 50mm Biohazard

# HWS008 SPECIFICATION FOR TREATMENT TROLLEY RECEPTACLES

- 1. The receptacle shall have a nominal capacity of 2.5 or 5 liters and shall be easily lined with a 5-liter bag.
- 2. The receptacle shall have the ability to contain any leakage should a spillage occur.
- 3. The receptacle shall be rigid in construction and equipped with bracket for attachment to trolley.
- 4. The receptacle shall have smooth surfaces and be easily cleaned, disinfected and dried.
- 5. The receptacle shall be clearly marked with the biological hazard symbol for clinical waste receptacles.

# HWS009 SPECIFICATION FOR ONE-WAY PLASTIC SEAL

- 1. The seal shall be designed such that once a bag is sealed the tie cannot be removed and reused.
- 2. The seal shall be made from a material strong enough to prevent accidental breakage or damage during normal handling.
- 3. The seal shall be able to form a secure leak-proof seal to the neck of the bag once fitted.
- 4. The seal may be a combined seal and tag device.

# HWS010 SPECIFICATION FOR LIQUID CHEMICAL WASTE CONTAINERS

- 1.0 Where appropriate and available, the original containers shall be re-used for disposal of chemical waste.
- 2.0 The containers shall be free from dents, cracks or any other defects. Dented, cracked and defective containers shall not be used.

## HWS011 SPECIFICATION FOR LABELLING OF NON-INFECTIOUS HAZARDOUS WASTES

- The label shall consist of the following information and shall be recorded by the Hospital's personnel:
  - 1.1 The date when the waste was first generated
  - 1.2 The name, address and telephone number of the Hospital
  - 1.3 The waste name and waste code as applicable to the type of waste generated.
- 2 All labels shall be visible, readable and consist of the appropriate symbol.
- 3 The symbol shall comply with the requirements of the MOH HWMS Guideline or UN standards:
  - 3.1 A square set at an angle of 45 degrees.
  - 3.2 The dimension shall be not less than 10 cm by 10 cm except when the size of the container or package warrants the use of a smaller label.
  - 3.3 The upper half of the square shall be reserved for the hazard symbol while the lower half shall be reserved for printed text in block letters.
  - 3.4 The colors for the symbols shall comply with British Standard BS 381 C, "Colors for Specific Purpose", and the colors used shall be as follows:

Colour	Ref. No.
French blue	166
Canary yellow	309
Signal red	537
Light orange	557

- 3.5 The text shall be:
  - 3.5.1. Black on white background
  - 3.5.2. White on coloured background
- 3.6 Symbol shall be pre-printed
- 3.7 Example of the Hazardous waste label are provided in Annex9 and Annex 10 of MOH HWMS Guideline.

#### HWS012 SPECIFICATION FOR HEALTHCARE WASTE COLLECTION DEVICES

- 1. Collection devices used for collecting healthcare wastes within Hospital shall be designed and constructed such that:
  - 1.1 These are rigid in construction.
  - 1.2 These shall be easily maneuverable.
  - 1.3 Wastes are easily loaded and unloaded.
  - 1.4 The surfaces are smooth and impermeable so that these:
    - Can contain leakages should a waste bag or container be torn or damaged
    - Are easily cleaned, disinfected and dried
    - Will not tear waste bags or damage containers
    - Do not trap particles of waste
  - 1.5 These shall be heavy duty and durable.
- 2. Any plug holes for draining the device during washing shall be plugged before these are put to use.
- 3. The type of collection devices may be as follows:
  - 3.1 Trolley / wheeled bins / carts
  - 3.2 Tricycle
  - 3.3 Van
  - 3.4 Lorry
- 4. Tricycle, van or lorry are additional collection devices that may be required in a Hospitals where the terrain or the location of the CWS makes the manual pushing of trolleys / wheeled bins / carts difficult for porters. If the Company proposes to use any of these devices:
  - 4.1 The design and specifications of these devices shall be submitted for approval by the Government.
  - 4.2 These devices shall not be used to collect recyclable waste, or Non-Infectious Hazardous wastes at the same time. Washing and drying of these devices after the collection of each type of waste shall be done before it is used for collection of another type of waste.
  - 4.3 The use of these devices, the approval from the Government and the Hospital specific procedure with respect to collection and washing shall be documented in the HSIP.
- 5. For clinical waste additional requirements are:
  - 5.1 The device shall be provided with a locking or sealing mechanism so that the waste can be secured
  - 5.2 The device shall be marked with the biohazard symbol and waste code.
  - 5.3 The device shall be yellow in colour.
  - 5.4 The device shall be dedicated only for clinical waste and be made secured.
  - 5.5 Wheeled bins may also be used as on-site storage receptacles in specialized areas.

#### HWS013 SPECIFICATION FOR CLINICAL WASTE TRANSPORTATION DEVICES

- 1. The devices used to contain clinical waste for transportation from the Hospital to the treatment facility shall be designed and constructed such that:
  - 1.1 These are rigid in construction
  - 1.2 These shall be easily maneuverable
  - 1.3 Wastes are easily loaded and unloaded
  - 1.4 The surfaces are smooth and impermeable so that these:
    - Can contain leakages should a waste bag be torn or damaged
    - Are easily cleaned, disinfected and drained
    - Will not tear waste bags
    - Do not trap particles of waste
  - 1.5 These shall be heavy duty and durability.
  - 1.6 These have a locking or sealing mechanism so that the waste can be secured
- 2. The device shall be dedicated for clinical waste and be made secured.
- 3. The device shall be yellow in colour.
- 4. The device shall be marked with the biohazard symbol and waste code.
- 5. The device shall be marked with a unique identification number.
- 6. The device shall be suitable for loading and unloading onto the transportation vehicle and for loading into the plant.
- 7. Label as shown below shall be attached to the transportation device. The date when the clinical wastes are first generated, name, address and telephone number of the Hospital shall be recorded by the Company.

# HWS014 SPECIFICATION FOR CLINICAL WASTE TRANSPORTATION DEVICE FOR USE BY OTHER GOVERNMENT HEALTHCARE FACILITIES

- 1. The device for transportation of clinical waste by other Government healthcare facilities (under the administration of Hospital) to the Hospital shall be designed and constructed such that:
  - 1.1 These are rigid in construction
  - 1.2 Wastes are easily loaded and unloaded
  - 1.3 The surfaces are smooth and impermeable so that these:
    - Can contain leakages should a waste bag be torn or damaged
    - Are easily cleaned, disinfected, drained and dried.
    - Will not tear waste bags
    - Do not trap particles of waste
  - 1.4 These shall be heavy duty and durable.
  - 1.5 The cover can be secured in place to ensure that the waste is fully contained.
  - 1.6 These are marked with the biohazard symbol and waste code.
  - 1.7 The device shall have recessed hand grips on both sides for easy handling.
  - 1.8 The device shall be marked with yellow colour.
- 2. The device shall be dedicated for clinical waste.
- 3. The device shall be marked with the biohazard symbol and waste code.
- 4. The device shall have a nominal capacity of 100 liters.

#### HWS015 SPECIFICATION FOR CENTRAL HEALTHCARE WASTE STORE

#### 1. General considerations for a central healthcare waste store are:

- 1.1 The stores for the different types of wastes shall be in the same location within the Hospitals premise as long as there is a clear separation between different storage areas. Aesthetically it would be better to have the storage areas at one location than at two different locations.
- 1.2 The CWS shall preferably be away and out of sight of patient areas, patient traffic, and cooking areas.
- 1.3 The CWS shall be easily accessible to the transport vehicles if the wastes are to be transported out to treatment or disposal facilities. The access road shall have appropriate load bearing capacity for these vehicles.
- 1.4 The CWS shall be located in an area that has good ventilation.
- 1.5 The CWS shall be located in an area that is not subject to flooding. If the entire Hospitals premise is subject *to* flooding then the CWS shall either be elevated or have barriers to prevent flooding of the CWS.
- 1.6 A layout plan of the CWS and the different areas within the CWS shall be provided in the HSIP.

## 2. General specifications are:

- 2.1 The CWS may be a constructed building with different rooms allocated for different waste categories or it may be in the form of commercially available portable units.
- 2.2 There shall be a cover so that the wastes and equipment are not exposed to sun and rain.
- 2.3 There shall be adequate ventilation if the CWS is an enclosed area. This can be done by leaving some space between the top of the wall and the ceiling or by using ventilation bricks or louvers on the sides of the walls.
- 2.4 There shall be good lighting.
- 2.5 There shall be designated areas/rooms for the different categories of waste generated at the Hospitals. These areas/rooms shall be marked with the required symbols and warning signs.
- 2.6 Element of security shall be provided to prevent theft or disturbance of waste by any unauthorized person.
- 2.7 Area for weighing and documentation to be carried out shall be provided including the necessary furniture and equipment.
- 2.8 Sufficient capacity, with space for collection devices filled with waste and space for storage of clean collection/transportation devices shall be provided.
- 2.9 Area for washing and drying of bag holders and collection devices shall be provided. The washing area shall have a concrete apron and be designed to ensure that wash water is channeled into the sewer.
- 2.10 These areas shall be marked for its intended use, e.g. *Area for Clean, Collection/Transportation Devices, Washing Area, Filled Collection/Transportation Devices* etc.

- 2.11 The walls and floors of the CWS shall be smooth, of impervious material and easy to clean. The floors shall have the necessary gradient for good drainage.
- 2.12 The windows and ceiling shall be covered with a net to prevent entry of insects and animals.
- 2.13 The doors shall be large enough for collection/transportation devices, and possibly lifting devices.
- 2.14 If the Hospital has an incinerator or any other treatment facility sited within its premise, the waste storage room shall be located near it.
- 2.15 An access path for collectors and collection trolleys shall be provided as follows:
  - The path to the CWS shall be smooth so that the collection devices can be easily and safely wheeled:
    - Without the possibility of collection devices toppling over and spillage occurring.
    - Without causing undue strain on the porters and possible injury to them.
  - The gradient shall not be steep causing difficulties in pushing the collection devices or in preventing it from *rolling* downwards.
  - The path shall be made of materials that are not slippery.
- 2.16 If the store is elevated a ramp shall be provided for easy maneuvering of filled collection/transportation devices into the designated areas.
- 2.17 The perimeter drains and washing area of the CWS shall be connected to the sewer line.
- 2.18 The CWS shall be equipped with electricity and water, and if possible with separate meters to distinguish between HWMS and Hospital consumption. If this is not possible a formula for payment of utility consumption at the CWS shall be proposed for approval by the Hospital CEO / SHA.
- 2.19 Storage capacity for risk mitigation shall be provided as described in HWP0012.

## 3. Special Considerations for Clinical Waste

- 3.1 If daily transportation is not Hazardous, and waste collected from the user areas are to be stored for more than 24 hours, refrigeration shall be provided and this shall be maintained at 6°C and below.
- 3.2 The wastes shall be contained either in collection or transportation devices to prevent possible leakage from the waste bags and contamination of the area.
- 3.3 If portable cabin is used for storage, cheered plate flooring or some other smooth and impervious flooring shall be used.
- 3.4 Hand washing facilities shall be provided, complete with disinfectant soap and paper towels.

#### 4. Special Considerations for Chemical and Pharmaceutical Wastes

- 4.1 Separate areas (secondary containment areas) shall be provided for incompatible wastes. In general, the incompatible waste groups are as follows:
  - Acids and bases.
  - Organics and acids.
  - Cyanide, sulfide or arsenic compounds and acids.
  - Alkali or alkali earth metals, alkyl lithium etc. and aqueous waste.
  - Powdered or reactive metals and combustible materials.
  - Mercury or silver and ammonium containing compounds.

- 4.2 Chemicals that have been mixed, based on laboratory testing protocol, shall also be stored separately from the waste types listed above.
- 4.3 Secondary containment areas for incompatible wastes shall meet the following requirements:
  - The secondary containment areas shall consist of a concrete floor with a berm or dike or container to contain the spillage and prevent the flow of the waste into another area and mixing with incompatible wastes.
  - The floor must be free of major cracks or gaps and shall be impervious.
  - Materials used for the floor shall be able to withstand normal loading and physical damage caused by container handling.
  - For areas where liquid wastes will be stored, the area shall be designed such that it can contain 110% of the contents of the largest container to be stored in the area or 20% of the total quantity of the waste to be stored, whichever is the greater.
  - For smaller waste containers racks may be constructed but the materials shall be compatible with the wastes to be stored on these racks and shall be strong enough to carry the full weight of the wastes. A silk and drip tray to contain and collect spillage or leakage shall be provided.
  - In the case of small waste producers, cabinets with racks may be considered but these shall also be constructed with materials compatible with the wastes to be stored. These cabinets shall have a sill and drip tray to contain and collect spillage and leakage and shall have ventilation holes.
  - Floor drains around these areas shall be plugged.
  - There shall be enough space to position pallets for placement of containers with sufficient space between them to allow workers to easily inspect containers and to handle them. Where large containers or drums are used, there shall be sufficient space for a lifting device to maneuver.
- 4.4 Other specific requirements may be required for specific types of chemical waste generated. The Company shall make reference to the CSDS/MSDS, DOSH Guidelines on Storage of Hazardous Chemicals, relevant legislative requirements and/or best practice guidelines before construction of the store.

# 5. Special Considerations for Recyclables

- 5.1 The separation of the storage areas for recyclables is not as stringent as for Hazardous wastes. Basically, it is to ensure that recyclable items do not get unduly soiled and are aesthetically acceptable.
- 5.2 Racks shall be provided for recyclable materials such as paper and carton boxes to prevent damage from damp.

# 6. Special Considerations for Wash Area

- 6.1 The area for washing and drying of collection/transportation devices shall be well ventilated to prevent build-up of moisture and fungal growth.
- 6.2 The wash area shall be connected to the sewer, if available, or a septic tank or other form of sewage treatment system.
- 6.3 The washing area shall be constructed with a slight gradient so that water flows into the drain hole that leads into the sewer or sewage treatment system.
- 6.4 The necessary detergents, washing pads and PPE shall be available for safe and effective cleaning to be done.
- 6.5 The wash area shall be sited away from the storage area where reactive chemicals are stored.

# 7. Safety and Hygiene Requirements:

- 7.1 Adequate facilities such as water supply, protective gear, and equipment for cleaning the floor shall be available.
- 7.2 Spill kits shall be provided and:
  - This shall include absorbents, disinfectants, buckets, shovel, disposable container, and plastic waste bags with appropriate labels, warning signs and tapes, sealing tapes.
  - These shall be placed where they are easily accessible and visible.
  - Different spillage kits for different purposes shall be marked and placed within easy access when required.
- 7.3 Fire extinguishers that are compatible with the types of potential fire hazards present shall be available and:
  - Placed so they are visible from the front entrance.
  - The fire extinguishers shall also be easily accessible and not blocked by equipment, furniture, wastes etc.
- 7.4 Eyewash and deluge showers shall be provided and these shall be located within easy access.
- 7.5 The relevant CSDS or MSDS of chemical wastes stored shall be available as a guide on precautionary measures required.
- 7.6 Emergency response procedures, preferably in a flow-chart format, shall be available.

#### HWS016 SPECIFICATION FOR CLINICAL WASTE TRANSPORTATION VEHICLES

- 1. Vehicles used for transporting clinical waste shall be fitted with a fully enclosed body, lined internally with stainless steel or aluminum to provide a smooth, impervious finish for ease of cleansing.
- 2. All corners and angles shall be curved and sealed to prevent lodgment of waste.
- 3. The driver's compartment shall be separated from the load compartment by a solid bulkhead.
- 4. The load compartment shall have cooling facility if the load is to remain in the compartment for more than 24 hours.
- 5. The vehicle shall be fitted with a spillage kit and any other relevant statutory fittings.
- 6. The vehicle shall have load identification sign using the biological hazard label, waste code and the name and address of the haulier, together with his phone number, which shall be shown on the sides and rear of the vehicles.
- 7. The vehicle used shall be able to anchor the transportation devices
- 8. The Company shall ensure that vehicle used for transportation of clinical waste comply with relevant laws/regulations and/or guidelines as may be issued by relevant authorities.

# HWS017 SPECIFICATION FOR DEMARCATION OF CLINICAL WASTE ON-SITE STORAGE RECEPTACLES

- 1. The Company shall obtain approval from the Hospital CEO / SHA to mark the location of on-site receptacles following the specifications described herein.
- 2. The Company shall identify suitable locations for placement of on-site receptacles and obtain Contract from the respective heads of the user areas.
- 3. The location of these receptacles shall be marked as follows:
  - 2.1 Using paint and the lines shall have a minimum width of 50 mm.
  - 2.2 The colour of the paint shall be in yellow.
  - 2.3 The size of the marked location shall be standardized through the Company zone of operations. The Company shall propose the size of the markings after having determined the type of receptacles that will be used throughout their zone for all the waste types.
- 4. If approval for the location marking is not obtained from the Hospital CEO / SHA, these exemptions shall be recorded in the HSIP.

# HWS018 SPECIFICATION FOR CLINICAL WASTE SPILLAGE KITS

- 1. Spillage kits for clinical waste clean-up shall contain the following:
  - 1.1 Protective gloves
  - 1.2 Absorbent material
  - 1.3 High absorbency disinfection granules
  - 1.4 Scoop & scraper
  - 1.5 Clinical waste bag & seal
  - 1.6 Tape to cordon off the area of spill
  - 1.7 Illustrated instruction sheet
- 2. The contents shall be contained in a durable carrying case, plastic bag or container which can be easily opened for access to the contents.
- 3. The spillage kits shall be approved by the Government.

# HWS019 SPECIFICATION FOR CHEMICAL WASTE SPILLAGE KITS

- 1. Spillage kits for chemical waste clean-up shall contain the following:
  - 1.1 Heavy neoprene gloves
  - 1.2 Safety glasses or goggles and face shield
  - 1.3 Shoe covers
  - 1.4 Disposable corrosive resistant lab coat / apron
  - 1.5 Paper towel
  - 1.6 Absorbent spill booms or pillows
  - 1.7 Absorbent spill mats
  - 1.8 Universal absorbent
  - 1.9 Scoop and scraper
  - 1.10 Chemical waste bag and seal or container
  - 1.11 Illustrated instruction sheet
- 2. The spillage kits shall be supplied together with the manufacturer's product label indicating that the spill kits are suitable for hazardous material spills as well as the type of hazardous material spills.
- 3. This specification is a general one applicable for most chemical spills. Where required the Company shah ensure that specific spill kits are available for spills requiring special procedures, e.g. mercury spills, hydrofluoric acid etc.

# SCHEDULE A HWMS SERVICE FACILITIES

NO.	FACILITIES	LOCATION				
Hosp	Hospital Raja Isteri Pengiran Anak Saleha					
1	Hospital Raja Isteri Pengiran Anak Saleha - Pusat Perkembangan Kanak-Kanak, Kiarong (Off-site) - Pusat Amal Cerah Sejahtera, Subok (Off-site) - Mental Health Unit, Kiarong (Off-site) - Klinik Perkhidmatan Berkhatan, Kiarong (Off-site)	Brunei - Muara				
	oital Pengiran Muda Mahkota Pengiran Muda Haji Al-Muhtadee l bital, Tutong	Billah (PMMPMHAMB)				
2	Hospital Tutong PMMPMHAMB - Pusat Pengasingan Kebangsaan + Perkembangan Pusat Pengasingan Kebangsaan (NIC + NICE)	Tutong				
Hosp	oital Suri Seri Begawan, Kuala Belait					
3	Hospital Suri Seri Begawan, Kuala Belait	Belait				
Hosp	oital Temburong PIHM					
4	Hospital PIHM, Temburong	Temburong				
Jaba	tan Perkhidmatan Kesihatan					
5	Pusat Kesihatan Berakas Berakas Health Centre	Brunei - Muara				
6	Pusat Kesihatan PAPHMWHB, Rimba-Gadong PAPHMWHB Health Centre, Rimba-Gadong	Brunei - Muara				
7	Pusat Kesihatan Muara  Muara Health Centre	Brunei - Muara				
8	Pusat Kesihatan Jubli Perak, Sengkurong Jubli Perak Health Centre, Sengkurong	Brunei - Muara				
9	Pusat Kesihatan Jubli Emas, Bunut  Jubli Emas Health Centre, Bunut	Brunei - Muara				
10	Pusat Kesihatan Pengkalan Batu Pengkalan Batu Health Centre	Brunei - Muara				
11	Pusat Kesihatan PAPHRSB Sg Asam PAPHRSB Health Centre, Sg Asam	Brunei - Muara				
12	Pusat Lamunin Kesihatan  Lamunin Heath Centre	Tutong				
13	Pusat Kesihatan Seria Seria Health Centre	Belait				
14	Pusat Kesihatan Sg Liang Sg Liang Health Centre	Belait				
15	Pusat Kesihatan Sg Kelugos Sg Kelugos Health Centre	Tutong				
16	Pusat Kesihatan Telisai Telisai Health Centre	Tutong				
17	Pusat Kesihatan Tutong Tutong Health Centre	Tutong				
18	Klinik Kesihatan Labi Labi Health Clinic	Belait				
19	Klinik Kesihatan Sg Besar	Brunei - Muara				
Pusat Dialisis (Dialysis Centre)						
20	Pusat Dialisis Rimba Rimba Dialysis Centre	Brunei - Muara				

NO.	FACILITIES	LOCATION			
21	Pusat Dialisis Kiarong Kiarong Dialysis Centre	Brunei - Muara			
22	Pusat Dialisis Tutong Tutong Dialysis Centre	Tutong			
Perk	hidmatan Pergigian				
23	Pusat Pergigian Negara National Dental Centre	Brunei - Muara			
Perk	hidmatan Farmasi				
24	Jabatan Perkhidmatan Farmasi (Madaras)	Brunei -Muara			
Perk	hidmatan Sainstifik				
25	Department Scientific Services (Main Branch)	Brunei -Muara			
26	Department Scientific Services (Serasa Branch)	Brunei - Muara			
Perk	hidmatan Kesihatan Alam Sekitar				
27	National Tuberculosis Coordinating Centre, Kiarong (NTCC)	Brunei - Muara			
28	Brunei International Airport Health Clinic	Brunei - Muara			
29	Pusat Pemeriksaan Kesihatan Berakas  Berakas Health Screening Centre  - Foreign Workers Health Screening	Brunei -Muara			
30	Pejabat Kesihatan Belait Health Office Belait	Belait			
31	Pejabat Kesihatan Temburong Temburong Health Office	Temburong			
32	Pejabat Kesihatan Daerah Tutong Tutong Health Office	Tutong			
	TOTAL 10 Grouping and 32 Service Facilities				

# **END OF DOCUMENT**

# SCHEDULE B MANPOWER REQUIREMENTS

## 1.0 JOB POSITIONS AND RESPONSIBILITIES

1.1 The Company shall at all times employ qualified, experienced and competent Key Staff and employees for performance of the Service. The positions are essentially site-based or support staff from Company's head office. The following positions are identified as the minimum requirements to be based on-site to deliver the Service:

# a) HQ Support

No.	Position	Portfolio	Deployment	Total Headcount
1	Contract Manager	<ul><li>Overall management of the Service</li><li>Contract management</li></ul>	1 for all sites	1
2	Health and Safety Officer	Monitoring	Site visit as required	HQ Support
3	Quality Officer	<ul> <li>Monitoring</li> </ul>	Site visit as required	HQ Support
4	Procurement	HQ Support	HQ Support	HQ Support
5	ICT System	HQ Support	HQ Support	HQ Support
6	Safety	HQ Support	HQ Support	HQ Support

1.2 HQ support staff shall be qualified and competent to manage the overall service and prep technical and commercial aspect for successful implementation of the Service

# b) Operation Staff

No.	Position	Portfolio	Deployment	Total Headcount
1	HWMS Executive @ Assistant Contract Manager;	<ul> <li>Service and operational management</li> <li>Customer service</li> <li>Health and safety rep</li> </ul>	<ul> <li>1 to cover 3 hospitals</li> <li>1 for hospital + JPK + Renal</li> <li>Normal working hours</li> </ul>	2
2	Healthcare Waste Supervisors	<ul><li>Service delivery</li><li>Customer service / documentation</li></ul>	2 for all	2
3	Team Leaders / Assistant Supervisor	<ul><li>Lead porter for delivery</li><li>Customer service /</li></ul>	1 each user area / shift	10
4	Porters	Service delivery	<ul><li>User areas</li><li>Site visit as required</li></ul>	68
5	Help Desk Operators	<ul><li>Customer Service</li><li>Data entry</li></ul>	1 / 2 / 3 per Health Facility	28

- 1.3 The above position setting may have duplicating tasks / activities or possibly combined due to the level of workload at the designated hospital or health facilities. In such case, the Company shall notify the Authorised Officer and propose the position and designated portfolios to be combined. The proposal can be implemented upon approval by the Authorised Officer and updated in the respective Hospital's HSIP.
- 1.4 The minimum requirement by Hospital and Health Facilities within the 24-hours service are as follows:

## Insert table by:

NO.	HOSP / HCTR / DPT	Supervisor	Team Leader / Assistant Supervisor	Porter	Help Desk Operator	Total
1	RIPAS Hospital		1	13		71
2	SSB Hospital		1	10	14	
3	PMMPMHAMB Hospital		1	10		
4	PIHM Hospital		1	5		
5	Department of Health Services		1	9	. 14	65
6	Department of Scientific Services	2	1	3		
7	Department of Environmental Health Services (FWHS)	- -	1	2		
8	Department of Dental Services		1	3		
9	Department of Pharmacy Services		1	3		
10	Department of Renal Services		1	10		
	TOTAL	2	10		28	136

<sup>\*</sup>not include day off

## 1.5 Manning distribution for helpdesk operators are as follows:

NO.	GROUPINGS NO. OF HELPDESK OPERATORS				
Grou	Group A				
1	Hospital Raja Isteri Pengiran Anak Saleh				
2	Hospital Tutong PMMPMHAMB	Morning - 8 Afternoon - 4			
3	Hospital Suri Seri Begawan, Kuala Belait	Night – 2			
4	Hospital PIHM, Temburong				
Grou	Group B				
5	Department of Health Services				
6	Department of Scientific Services				
7	Department of Environmental Health Services	Morning - 8 Afternoon - 4			
8	Department of Dental Services	Night – 2			
9	Department of Pharmacy Services				
10	Department of Renal Services				
	Total	28			

1.6 Below are clarifications and examples of how porters are designated at RIPAS Hospital;

	Office hour (7.30-3.30)	Morning (7am- 3pm)	Afternoon (3pm- 11pm)	Night (11pm- 7pm)	Day-off
Zone 1		1	1	1	1
Zone 2	1	2	1	1	1
Zone 3	111	2	1	1	1

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ZONE 3

## Porter Designation at RIPAS Hospital

Zone 1 – Woman and Children Centre:

One porter is assigned for each shift – morning, afternoon, and night.

## Zone 2 – Ward Complex:

**ZONE 1** 

Two porters are assigned per shift – one for the East Wing and one for the West Wing (morning, afternoon, and night).

## Zone 3 – Specialized and Service Block:

One porter is assigned per shift – morning, afternoon, and night.

## \*Additional Notes:

- Zones 2 and 3 include clinics and are characterized by a high workload.

In the afternoon, clinics close after 4:30 PM. Therefore, one porter is scheduled for the afternoon shift and one for the night shift.

1.7 The Company shall ensure that required level of porters, team leaders and supervisors are maintained throughout the Contract Period. Proposal to lower the minimum manning shall be submitted for MOH approval and only implemented upon approval. However, under the circumstances the existing manning is not sufficient to meet Service's requirement, the Company shall straight away add without requiring for approval to ensure pottering works are completely carried out to service requirements. Variation to the cost of additional workers shall be borne by the Company.

### 2.0 JOB REQUIREMENTS

- 2.1 The Company shall recruit the right candidate for the job and assign appropriate scope of work to the respective positions in order to deliver and comply with the service requirements and to effect the service level that satisfactory to users.
- 2.2 Minimum requirements and job descriptions for leading positions are specified below:

## i. Contract Manager

## (a) Job Requirements

- Preferably Bruneian Citizen or Permanent Resident Holder
- Bachelor's degree in business related / health sciences / sciences from a recognised institution
- Minimum 7 years' work experience in any industry of which 3 years at managerial capacity with good exposures on contractual aspects in safety, quality, work planning and performance
- Excellent communication skills and English literate

## (b) Job Descriptions

- Head the Company's personnel for the Service, responsible for fulfilment
  of service obligations i.e., development of service infrastructure and
  component, total deployment of resources and performance level of the
  Services for the duration of this Contract
- Focal point for communication and report directly to MOH Authorised Representative on the overall management and planning to develop the Service and meet KPI targets
- Ensure full implement of policies and procedures of work processes to demonstrate consistent delivery of quality services performance and adhere to regulations and guidelines in force.
- Head the Company's ERT and lead to conduct action plans during contingencies.

## ii. Healthcare Waste Executive @ Assistant Contract Manager

## (a) Job Requirements

- Preferably Bruneian Citizen or Permanent Resident Holder
- Bachelor's degree in business related / health sciences / sciences from a recognised institution
- Minimum 5 years' work experience in any industry with good exposures on delivery performance and the aspects of Quality Management, Health, Safety, Security and Environment
- Excellent communication in oral skills and computer literate

## (b) Job Descriptions

- Deputise the Contract Manager on the overall management and planning and to fulfil service obligations to meet KPI targets
- Assist Contract Manager to project manage establishment of system software, device and consumable supplies and ensure availability of resources on-site for service delivery
- Ensure efficient implementation of customer services processes and Help Desk operations
- Perform regular service audits and service improvement programmes to uplift service level and customer satisfaction
- He / She shall assist Contract Manager in performing the Roles and Responsibilities with focus on execution of service delivery
- He/she shall be able to demonstrate ability and experiences in prioritizing work load and coordinate with Supervisors to resolve day-to-day issues.

## iii. Supervisor

## (a) Job Requirements

- Preferably Bruneian Citizen or Permanent Resident Holder
- Diploma or Certificate in business related / health sciences / sciences from a recognised institution
- Minimum 5 years' work experience in any industry with good exposures on delivery performance and the aspects of Quality Management, Health, Safety, Security and Environment
- Good communication skills and computer literate
- Experienced in group leadership in any job programmes, events and inspection or supervisory services

## (b) Job Descriptions

- Communicate and coordinate with End Users on service requisitions and delivery matters
- Monitor the performance of all staff with regards to compliance with customer requirements, standards and procedures
- Conduct site investigation in case of any incidents and shortfall against requirement or compliance for remedial actions such as on-the-job training
- Ensure all transaction records and data are collected and keyed in by Help Desk operations
- Assist Healthcare Waste Executive to implement any programme for service development and improvement

## iv. Team Leader / Assistant Supervisor

## (a) Job Requirements

- Preferably Bruneian Citizen or Permanent Resident Holder
- Three (3) years' working experience in healthcare services

## (b) Job Descriptions

- Lead porters group for specific user area or shift to meet delivery schedules and service requirements
- Cleaning waste bins after use as well as the clinical storage area
- Report any spills, damage or issues to the supervisor

## v. Porters

## (a) Job Requirements

Preferably Bruneian Citizen or Permanent Resident Holder

## (b) Job Descriptions

- Collect and transport clinical waste safely from health facilities
- Cleaning waste bins after use as well as the clinical storage area
- · Report any spills, damage or issues to the team leader

## (c) Help Desk Operator

## (a) Job Requirements

- Preferably Bruneian Citizen or Permanent Resident Holder
- Minimum technical certificate or equivalent in Health Services / Communication or Information Technology
- One (1) years' experience in working at the Front desk / Front Counter while operating / inputting data / information into a computerized system, and make compilation of records within the counter. Freshly graduate are encourage.

## (b) Job Descriptions

- Attend all requests, queries and complaints regarding the service, subsequently record and relay the messages to responsible staff or employees accordingly
- Generate monthly report on service transactions according to the present format and submit to Healthcare Waste Executive

# SCHEDULE C SERVICE INFORMATION AND

**MANAGEMENT SYSTEM** 

## 1.0 Development of System

- 1.1 The Company shall develop SIMAS together with MOH nominated contractor.
- 1.2 Development cost for the installation shall be budgeted at around BND\$105,000.00.
- 1.3 However, this cost may vary due to many factors, such as customisation processes or requirements. Any variation to the budget will be advised to the appointed Company accordingly.

## 2.0 Maintenance Requirements

- 2.1 The Company shall maintain the system throughout the contract, ensuring the system to operate effectively and efficiently.
- 2.2 SIMAS will be a shared platform supporting five non-clinical support services. The Company shall provide maintenance budget and kept to 30% of the development budget to ensure the system meets the operational and reporting needs of all services using it.

## 3.0 Data Management

- 3.1 The Company is responsible to manage and maintain data from the Service over the contract period. On this premise the Company shall establish a service management system or SIMAS capable of effecting many benefits including the following:
  - i. Setting a database of all records that are relevant to the Service:
  - ii. Recording all transactions data arising from the conduct of all activities defined by the Service requirements (operation data);
  - iii. Facilitating customer services via record of all queries, requisitions and complaints by users of the Service and Help-Desk responses thereto
  - iv. Generating meaningful analysis and reports that can be used and referred for many purposes especially those of KPIs for the service.
- 3.2 In principle, the Company shall establish all the database necessary to demonstrate compliance to the Service requirements and KPI standards especially those defined under the Scope of Services and Specification for this contract. Some of the data and reports below are provided to demonstrate that the Company will have to browse through the service requirements and extract important field of information to be established accordingly:
  - i. Healthcare Waste Management Services Specification
  - ii. Segregation Of Healthcare Wastes
  - iii. Collection Of Healthcare Wastes
  - iv. Cleaning And Maintenance Of Healthcare Waste Devices
  - v. Management Of Spillage Within A Contract Hospitals
  - vi. Disinfection Of Infectious Clinical Waste
  - vii. Recording Of Waste Collected At User Area
  - viii. Weighing And Documentation Of Healthcare Wastes After Collection
  - ix. Consignment Note Management And Waste Inventory
  - x. Management And Maintenance Of The Central Healthcare Waste Store
  - xi. Management Of Spillage On Public Road
  - xii. Compliance With Statutory & Regulatory Requirements
  - xiii. Risk Management For Healthcare Waste Management
  - xiv. User Training
  - xv. Investigation In Case Consignment Note Was Not Received By Hospital After One Month
  - xvi. HWMS Quality Assurance Programme
  - xvii. Safety Audit Plans
  - xviii. Hospital Specific Implementation Plan (HSIP)

- 3.3 All such data shall be promptly archived and handed over at the expiry of Company's contract to MOH both in the software native format and readable format such as .pdf, .csv, .xls, .mdb etc as appropriate.
- 3.4 As part of setting up the database, the Company shall conduct a collection and compilation of facility data and inventories during the mobilization period and the facility data collected and compiled shall then be secured and keyed in the SIMAS. The nature of the information shall be categorized and scheduled according to building, block, unit and area of the information.
- 3.5 The Company shall be solely responsible on the accuracy of the information. The Company shall observe and abide by all statutory requirements in relation to data protection.
- 3.6 Proper system for data-back up and maintenance of the system shall be in place and is deemed inclusive of the Company's price for the Service.
- 3.7 Helpdesk operators shall be trained and assigned to provide coordinated support across all hospitals and health facilities, ensuring timely response and service continuity.

## 4.0 HARDWARE

- 4.1 The Company shall be responsible to set-up the hardware for Help Desk at every Service Facility for providing a minimum of Database Server, Application Server, Backup Server and Web Server each with a 100% redundant function. The hardware and associated software shall be capable of handling the deployment and subsequent operations of SIMAS at all hospitals and health facilities.
- 4.2 The Company shall provide laptop / desktop and internet connection for the access of the SIMAS software for their staff and Help-Desk including the following:
  - a. Networking system: Secure hospital-wide Wi-Fi for real-time updates.
  - b. Internet connectivity of suitable bandwidth to ensure reliable connection to the Facility Management Software via Internet.
  - c. GSM or latest mobile messaging features for alert functions (either at Help Desk or at remote hosting site)
- 4.3 All the above deployments shall involve the Company being responsible for the associated hardware and software including maintenance throughout the Contract Period and upon completion the Company shall conduct data integrity tests, compile and handover the data to Client.

## 5.0 SOFTWARE

- The software shall be able to accommodate the workflow processes of the Service. All efforts required for any customization to accommodate such workflow/required features shall be deemed included in the Contract Price. All such customization required shall be made within six months from Commencement Data (Full Operations).
- 5.2 The Company shall be solely responsible to ensure the software is robust and capable of handling all the users' requests without with any data lagging and perform efficiently. The Company shall regularly review software performance and update where necessary to meet the demands throughout the contract period. One of the software features should include compatibility with mobile devices for field staff.

- 5.3 The software shall be for a multi-user environment, whereby users can be grouped according to their roles and the software shall be able to be accessed via internet securely. Where required secure connection shall be provided for such access and data encryption technologies to be adopted to allow a secure transaction.
- 5.4 The software shall be a web-based database application and shall be customized by the Company to suit the Service requirements. At any time during the Contract period, enhancement of SIMAS shall be carried out to meet changes in MOH requirements without any additional cost to the Government.
- 5.5 The Company shall provide maintenance services in respect of SIMAS software, hardware, network and database. The software shall be maintained to include the provision of updates and new releases of the system software if such updates and new releases do not require any change or re-design of the data base or source code of the SIMAS. Updates and new releases of the system software shall be provided by the Company as and when it is available and without additional cost to the Government.
- 5.6 The software shall have an interactive desktop for each user which shall prompt on the actions required by the user via active links that would lead the user to the respective action areas. The software shall also have features to generate email alert messages to users within/outside the system.
- 5.7 The software shall have document management features which shall include but not limited to the following:
  - i. Features to maintain facility related documentations, manuals, drawings, which can be associated with their corresponding versions/revisions (version control) complete with check- in/check-out facility.
  - ii. Features to view uploaded document format such as .dwg, .dwf, .docx, .xlsx and .pdf files through an in-built viewer without the need for their native software
- 5.8 The software is expected to run 24/7 as such the Company shall propose suitable system to ensure its availability in the event of any hardware/ software failure.
- 5.9 Upon readiness for implementation of MOH's BruHIM's healthcare waste module (targeted in Year 2026) the Company shall enhance the SIMAS to be installed to enable for integration with BruHIM. The development cost for additional modules and integration shall be budgeted by the Company.
- 5.10 The software shall have Help-Desk Management features which shall include but not limited to the following:
  - i. Application features to record complaints as cases and to associate them with follow-up actions.
  - ii. Features for complaints to various levels of criticality.
  - iii. Feature for keying in requisitions details and map them to the inventory record
  - iv. Features to generate service levels and key performance indicators which shall form a basis for measuring Company's performance.
  - v. Feature to schedule workforce and generate histograms of the work force deployed over a particular period
  - vi. Features to alert Contract Manager and any other selected users via SMS on selected alert user requirements or situation like healthcare waste shortages

## 6 **HANDOVER**

## 6.2 Ownership

All data, information and other materials (whether in original or derivative form) provided by MOH for or in connection with the implementation of the Service, acquired by the Company in the course of carrying out such implementation, shall at all times be the exclusive property of the Government.

- In the event that this Contract is terminated or upon the Expiry Date, the Company shall at its own cost and expense immediately upon such termination or expiration of the Contract, submit to MOH:
  - a. the source codes for the software developed, including the editable versions thus far at no additional cost to MOH; and
  - b. all the SIMAS developed, the relevant back-up hardware, software, relevant updated manuals, configuration documentation, installation compact discs, latest hardware and software inventory lists and other related documentation.

...\\end

# SCHEDULE D KEY PERFORMANCE INDICATORS

## **SCHEDULE D**

### **KEY PERFORMANCE INDICATORS**

1.1 The Company's performance will be based on a set Key Performance Indicators (KPIs) related to delivery activities and the illustration that follows as below:

NO.	PERFORMANCE INDICATORS	PERCENTAGE	WEIGHTAGE
HC.1	Supplies of all type of bags, containers, receptacles, labels, spillage kits and bracket for treatment trolley shall be adequately provided at all times in accordance with standard specification	100%	15%
HC.2	Collection of healthcare waste done in according to agreed frequency and schedule.	100%	25%
HC.3	Procedure for collection, storage, weighing, spillage management, loading of waste onto transport vehicles and recording of all these activities shall be complied with at all times.	100%	25%
HC.4	Transportation of healthcare waste to treatment and disposal facility shall be done and according to schedule. (no backlog at hospital)	100%	20%
HC.5	All receptacles and collection devices shall be cleaned and dried according to procedures and agreed frequency.	100%	15%

1.2 <u>KPI 1 - Supplies of all type of bags, containers, receptacles, labels, spillage kits and bracket for treatment trolley shall be adequately provided at all times in accordance with standard specification</u>

The indicator signifies of the adhering to quality standards to ensure proper waste segregation. The KPI can be assessed through the supply records, in alignment with the standard specifications outlined in the MP, as well as the continuous availability of all necessary bags, receptacles, containers, and brackets for treatment trolley receptacles.

1.3 KPI 2 - Collection of healthcare waste done in according to agreed frequency and schedule.

The indicator signifies that the Company should always ensure the healthcare waste collection to be done in according to agreed frequency and schedule. The KPI can be examined from the record of collection done according to the agreed frequency, time, approved routes and as per users' request.

1.4 <u>KPI 3 - Procedure for collection, storage, weighing, spillage management, loading of waste onto transport vehicles and recording of all these activities shall be complied with at all times.</u>

The indicator signifies the need for the Company to be efficient in managing the activities and to be recording and complied with at all times. The KPI can be examined from the record of all waste collection, storage, transportation, treatment and disposal in accordance with the procedures as specified in MP, Government regulations and license conditions.

1.5 <u>KPI 4 - Transportation of healthcare waste to treatment and disposal facility shall be done and according to schedule. (no backlog at hospital)</u>

The indicator signifies the importance of the Company's efficiency in managing the transportation of healthcare waste in accordance with the established schedule. The KPI can be assessed through the transportation records, ensuring adherence to the approved schedule.

1.6 <u>KPI 5 - All receptacles and collection devices shall be cleaned and dried according to procedures and agreed frequency.</u>

The indicator signifies importance of effectively managing the collection devices, ensuring that they are thoroughly cleaned and dried in accordance with established procedures. It also emphasizes the need for adherence to the agreed-upon frequency to maintain optimal sanitation standards and prevent any potential contamination risks.

1.7 A final performance rating will then be calculated based on how the Company deliver the targets of the KPIs.

## Performance Monitoring and Key Performance Indicators

- 1..1 The Contractor shall provide full support and input to the Facility Manager and the Client to monitor performance of the Contractor. The performance shall be monitored based on Key Performance Indicators (KPI) reports as specified within the overall Scopes and Specification. The relevant KPI records include but not limited to Customer Satisfaction sheet returns, FMS statistics and HSE records. These KPI records shall be agreed with Client at the start of the Contract. Monthly reports shall be submitted to Client for review and discussions on proactive intervention, timely corrective/remedial actions and improvement.
- 1..2 The Contractor's performance shall be monitored by the Client's Representatives by the application and use of KPI's and monthly PM as detailed below. Within one (1) month after the issuance of the Letter of Award, the Contractor shall propose a standard format for recording the following KPI's and Performance Monitoring Form. Upon approval of the format, the Contractor shall capture all cases reported/received in respect to the KPI's and generate monthly report for the Client and Client Representatives.
- 1..3 The required KPI's are stated below:
  - i. Number of complaints received;
  - ii. Number of accident cases reported;
  - iii. Number of cases which exceed specified response time;
  - iv. Number of cases which exceed delivery/ completion time;
  - v. Number of spillages cases reported;
  - vi. Number of fines imposed by authorities
  - vii. Customer Satisfaction sheet returns
  - viii. FMS statistics and HSE records

These KPI records shall be agreed with Client at the start of the Contract.

1..4 In addition to this the Monthly Contractor's report will include a Performance Monitoring form which Client's Representative will use as the basis of assessment during monthly visits to the site. These visits will occur at regular intervals. The timing of visits and format of Performance Monitoring form will be agreed with the Client within three (3) months after the issuance of the Letter of Award. The purpose of these visits is to monitor the Contractor's performance against the requirements specifications for this contract and will form the basis for deductions.

The Performance Monitoring form should include

- i. The key requirement specifications as detailed in this contract.
- ii. Identification of previously identified areas of non-compliance, and the dates of identification.

- iii. Identification if those areas of non-compliance which have been rectified, where this rectification has been confirmed by the Client.
- 1..5 The Client will inform the Contractor of the items of non-compliance no less than fourteen (14) days prior to the subsequent month's site visit.
- 1..6 Where the Contractor has not rectified the items of non-compliance prior to the subsequent months visit the Contractor will incur the penalties outlined. The Contractor will be penalised for each and every month that a non-compliant item is not rectified.
- 1..7 Should the Contractor score fall below the required standards for KPI's and Performance Monitoring, he shall activate an escalation procedure to bring the service up to the required standard by the next monthly assessment. The Contractor will not be penalized if he fails to achieve the required level within the first month of the Contract.
- 1..8 The Client may recover Liquidated Damages as a debt due by the Contractor or deduct the amount from any monies due or becoming due to the Contractor.

**END OF DOCUMENT** 

# SCHEDULE E LOADING AND UNLOADING LOCATIONS

## SCHEDULE E

## LOADING AND UNLOADING LOCATION

The Contractor shall agree where the location for loading / unloading area during collection of healthcare waste as following below:

1. RIPAS HOSPITAL				
Area	Location			
Loading / Unloading Area	Waste Storage in RIPASH			
2. SSB HOSPITAL	2. SSB HOSPITAL			
Area	Location			
Loading / Unloading Area	Waste Storage in SSB Hospital			
3. PMMPMHAMB HOSPITAL				
Area	Location			
Loading / Unloading Area	Waste Storage in PMMPMHAMB Hospital			
4. PIHM HOSPITAL				
Area	Location			
Loading / Unloading Area	Waste Storage in PIHM Hospital			
5. Department Renal Services, DRS				
Area	Location			
Loading / Unloading Area	Waste Storage in Each DRS Locations			
6. Department Health Service, DHS				
Area	Location			
Loading / Unloading Area	Waste Storage in Each Health Centres Location			
7. Department Scientifics Service, DSS				
Area	Location			
Loading / Unloading Area	Waste Storage in Each DSS Locations			
8. Department Pharmacy Ser	vice, DPS			
Area	Location			
Loading / Unloading Area	Waste Storage in Each DPS Locations			
9. Department Dental Service, DDS				
Area	Location			
Loading / Unloading Area	Waste Storage in Each DDS Locations			
10. Foreign Worker Health Sei	rvice, FWHS			
Area	Location			
Loading / Unloading Area	Waste Storage in FWHS			

## Notes:

• Consult the designated waste officer at each facility to confirm the appropriate collection location.

## **SCHEDULE F**

## WINDOW PERIOD FOR TRANSPORTATION OF HEALTHCARE WASTE

## **SCHEDULE F**

## WINDOW PERIOD FOR TRANSPORTATION OF HEALTHCARE WASTE

The Contractor shall **collect** the clinical waste from the respective HWMS Service Facilities' location within the following hours:

NO.	A.M.	P.M.		
4	RIPASH			
1	9.00 – 10.00	3.00 – 4.00		
2	SS	ВН		
2	9.00 – 10.00	3.00 – 4.00		
	РММРМНАМВН			
3	9.00 – 10.00	3.00 – 4.00		
A	PIHM			
4	9.00 – 10.00	3.00 – 4.00		
5	Department Health Service			
5	9.00 – 10.00	3.00 – 4.00		
6	Department Renal Service			
0	9.00 – 10.00	3.00 – 4.00		
7	Department Scientific Service			
	9.00 – 10.00	3.00 – 4.00		
8	Department Pharmaceutical Service			
	9.00 – 10.00	3.00 – 4.00		
9	Department Dental Service			
9	9.00 – 10.00	3.00 – 4.00		
10	Department Environmental Service			
10	9.00 – 10.00	3.00 – 4.00		

## Notes:

- Not all HWMS Service Facilities are required to collect waste in both the morning and afternoon every day. Consult the designated waste officer at each facility to confirm the appropriate collection day.
- The same applies to the frequency of waste collection within HWMS Service Facilities. Consult the designated waste officer at each facility to confirm the appropriate collection day.