



DHCR Waste

Policy & Procedure and Guideline

Department: HSE

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DHCR HSE Waste Policy, Procedure & Guideline

INTRODUCTION

This guideline has been prepared by DHCR HSE, and provides a general overview of waste management principles to help develop awareness of good practice in waste management for all working, operating and delivering services within DHCC.

The aim of the Waste Guideline is to provide occupational support by reducing the health and safety risks associated with healthcare medical waste and general waste by providing clarity on compliance requirements.

1- Purpose:

1.1	To provide a safe and healthy environment.
1.2	To protect staff, stakeholders and all from the exposure of hazardous waste.
1.3	To enhance environment protection.
1.4	To comply with the rules & regulations of Dubai Government and DHCC.
1.5	To minimize the environmental impact of waste generation, transport, treatment and disposal.
1.6	Reduce waste handling and disposal volumes and costs without compromising health care standards.

2- Scope of application:

2.1	This guideline applies to all, staff, patients, visitors, contractors and others attending DHCC. The guideline is applicable to all property (buildings owned or occupied) and premises including residential accommodation, and businesses), within the DHCC campus.
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3- Policy:

3.1	Ensure a facility has a designated holder of waste.
3.2	Ensure waste is properly stored, transported and disposed.
3.3	Ensure appropriate systems are in place for the control of the waste.
3.4	All waste is stored and disposed of properly to ensure it will not cause environmental pollution or cause a health and safety risk.
3.5	Hazardous waste is stored in designated colored containers properly labeled, locked & secured.
3.6	Identifying waste and providing information on the hazardous nature of the waste.
3.7	Waste is only handled by individuals or companies that are authorized.
3.8	Spillages are promptly cleaned as per procedure.
3.9	Recycling is strongly encouraged, where possible.
3.10	Records are kept of all wastes.



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3.11 If the waste is illegally / incorrectly disposed, those responsible will be accountable.

4- Responsibility

- 4.1 Every Business Partner ('BP') and their staff including all contractors staff should adhere to this DHCR HSE Waste Guideline.
- 4.2 Every Business Partner who has medical waste must ensure all waste streams are separated from all non-hazardous waste and handled and disposed of so that there is no risk of it entering the environment nor affecting the health of any person coming into close contact.
- 4.3 Adviseable all new staff shall be oriented on the waste guideline (where required).

5- Procedure

- 5.1 5.1.1 Avoiding waste generation is the best option for dealing with waste, where possible. The amount of risk waste can be reduced by proper segregation.

Categories of Healthcare Potentially Infectious Medical Waste

Medical wastes pose a significant public health threat if they are handled incorrectly.

The proper handling of medical wastes requires a comprehensive chain of actions beginning at the point of generation and extending to final disposal. It is the responsibility of the generator (Business Partner who handles Medical Waste) to comply with this guideline to ensure proper handling and disposal.

1. General	Blood and items visibly soiled with blood -contaminated waste from patients with transmissible infectious diseases incontinence wear/nappies from patients with known or suspected enteric pathogens Items contaminated with body fluids other than faeces, urine or breast milk.
2. Laboratory waste	Specimens and potentially infectious waste from pathology departments /Microbiological cultures (liquid or solid media in which organisms have been artificially cultivated).
3. Biological	Anatomical waste and identifiable body parts.
4. Sharps	Any object which has been used in the diagnosis, treatment or prevention of disease that is likely to cause a puncture wound or cut to the skin.
5. Radioactive waste	Includes materials in excess of authorized, clearance levels, classified as radioactive.
6. Other forms of hazardous healthcare waste	Discarded hazardous chemicals, reagents and toxic or flammable medicines.

Categories of Non Healthcare Waste



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Non-Medical Waste	
7. Domestic waste	Includes normal household and catering waste, all non-infectious waste, non-toxic, non-radioactive waste and non-chemical waste.
8. Confidential material	Includes shredded waste documents of a confidential nature.
9. Medical equipment	Assessed as non-infectious, i.e. not contaminated with blood or hazardous body fluids, e.g. plastic bottles, plastic packaging, etc.
10. Potentially offensive material	Assessed as non-infectious, i.e. not contaminated with blood or hazardous body fluids, e.g. nappies/incontinence wear, stoma bags, etc.

5.1.2 General Waste - Non-Risk Waste

- 5.1.2.1 The majority of healthcare waste - arguably well in excess of 80%, approximately is non-risk waste. The term non-risk is used to distinguish the waste from waste which has a defined risk. It does not imply that the waste is not without risk, particularly if it is carelessly handled.
- 5.1.2.2 Segregation of non-risk waste stream is required and in particular recycling schemes or special local packaging arrangements may involve a degree of further segregation. It should be noted that certain waste materials such as incontinence wear, urinary drainage bags etc. which is assessed as non-infectious, are not classified as healthcare risk waste (if not used by an infectious person).
- 5.1.2.3 General wastes may arise from health care institutions or non-healthcare related business practices and this waste shall be segregated and placed in black bins, where it cannot be recycled.
- 5.1.2.4 General waste includes all non-hazardous waste materials such as paper, cardboard, glass, metal and plastic; uncontaminated packaging materials; food scraps, garden pruning's, etc.
- 5.1.2.4 Putrescible waste (paper, cardboard, food scraps, gardening pruning) means it will rot (biodegrade) and have good composting potential only if the plastics, metals and glass are removed.
- 5.1.2.5 Recycling waste (Paper, cardboard, glass, metal and plastic) also all have recycling potential.
- 5.1.2.6 General waste not recycled or composted can be disposed of to landfill as general municipal waste.
- 5.1.2.7 It is essential that hazardous health care wastes are not placed into the general waste stream.
- 5.1.2.8 It is also equally important that uncontaminated general wastes are not placed



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into the potentially infectious, Cytotoxic and chemical wastes streams, as these hazardous waste streams require costly and specialized treatment for their disposal.

5.1.2.9 Non-hazardous wastes that are disposed of into these hazardous waste streams must consequently be treated as hazardous waste as they may have become contaminated with infectious and/or chemical agents.

5.1.3 Waste Bin Colour Category

Colours are assigned to five types of waste:

- 5.1.3.1 General waste
- 5.1.3.2 Medical waste
- 5.1.3.3 Laboratory waste for autoclaving
- 5.1.3.4 Radioactive waste
- 5.1.3.5 Hazardous chemical waste

Color	Waste Category
Black	General domestic and office type waste
Red	Radiotherapy wastes
Purple	Cytotoxic wastes
Light Blue	Wastes for autoclaving
Yellow	All other medical wastes

5.1.4 Category of Waste Streams

Yellow (yellow) lids / signs	Should be used with containers for disposal by incineration, disinfection technology.
Red (red) or blue (blue) lids / signs	Should be used by manufacturers to distinguish sharps containers and for alternative technology disposal for specialist waste.
Purple (purple) lids / signs	Are recommended for bins or boxes with healthcare risk waste contaminated with cytotoxic materials discarded medicines or pharmaceuticals and intended for disposal by incineration.
Black (black) lids / signs	Are recommended for containers used for the disposal of recognisable large anatomical waste material or body parts, including placentas and intended for disposal by incineration.



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5.1.5 Type of Waste Bags recommended

Non Clinical Areas	
Female toilets	Sanitary waste from non-infectious wards can be disposed of in the general black or clear bags, in the designated bins.
Kitchen	Black or clear bags only in these areas.
Offices/ Stores	Black or clear bags only to be provided.
Clinical Areas	
Clinical Treatment rooms	Must be provided with yellow biological waste bags and sharps box. General waste holders should only be placed in this area if there is clear segregation and identifiable, waste streams.
Operating / ICU	All waste to go into yellow bag and sharps box.
General wards	All medical waste to be deposited directly by healthcare professionals into yellow bag or sharps box at the point of treatment / care.
Infectious disease wards	All waste to be considered infectious and to be deposited into yellow medical waste stream in compliance with the Business Partners Infection Control Procedures.
Medication trolley/ nurses station	Equipped with a yellow bag and sharps box.
Blood donation areas	All waste to be deposited into yellow bags and sharps boxes.
Pharmacy	To be provided with a black bag for general waste and a purple for waste pharmaceuticals.
Oncology wards	All chemotherapy drugs and products must dispose of in purple bag labeled "cytotoxic chemical waste".
Laboratories	All waste chemicals should be segregated for disposal as Hazardous waste. All samples must be autoclaved and deposited into the Yellow waste stream. Culture Dishes from microbiological laboratories together with any other infected wastes must be autoclaved before leaving the laboratory and then deposited in the Yellow Bag waste stream.

5.1.6 Non-Risk Waste

The majority of non-risk waste is of a domestic nature and requires no specific packaging measures. It is disposed of as domestic or commercial waste, usually in black/clear plastic bags,



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bins, skips or containers. The further processing of domestic type waste, including the retrieval of recoverable fractions, compaction etc. is outside the scope of this document.

5.1.7 Procedure for BP Recycling Waste

BP are required to develop practical solution for:

- 5.1.7.1 Waste minimization
- 5.1.7.2 Re-usable products
- 5.1.7.3 Recycling equipment

5.1.8 Reuse/Recycling

It is the responsibility of every business partner to:

- 5.1.8.1 Provide adequate bins to collect and segregate recyclable wastes.
- 5.1.8.2 Dispose the recyclable wastes in the appropriate waste stream bins.

5.1.9 Recycle Waste

- 5.1.9.1 Cooking oil - install equipment in kitchens to filter waste oil so it can be reused
- 5.1.9.2 Paper - Reuse scrap paper for internal notes. Shredded paper can be reused for packages.
- 5.1.9.3 Stationery - Reuse interoffice envelopes, file folders and boxes.
- 5.1.9.4 Cardboard - Reuse boxes for outgoing deliveries.
- 5.1.9.5 Furniture - Repair and donate old furniture and equipment to charity.
- 5.1.9.6 Crockery - Reuse ceramic instead of polystyrene or plastic.
- 5.1.9.7 Glass - Glass should be chosen over plastic as it is easier to recycle.

5.1.10 Recycling Programs:

Packaging	Ensure all purchasing contracts have a measure put in place to reduce and prevent packaging. Try to reduce packaging by asking suppliers to cut down on product packaging and get a guarantee that suppliers will take back bulky packaging items such as pallets, cardboards and plastic outer wrapping (for reuse).
Refills	Use refillable dispensers where possible e.g. soap, paper towels etc. Use refill toner cartridges for printers, copiers and fax machines.
Cleaning products	Purchase nontoxic cleaning products to avoid hazardous waste disposal.
Food	Check food suppliers have a renewable resource and/or a recycled material. If waste cannot be recycled than every effort must be made to minimize.
Cardboard	Change to reusable packaging for daily deliveries.
Paper	Print on both sides of the paper. Place posters near printers with instructions for double sided printing.



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	Use e-mail memos instead of leaving notes. Store data online, rather than use printed paper copies, where possible.
Equipment	Try to purchase durable equipment to increase life of product. Buy products that are guaranteed by a warranty.
Batteries	Use rechargeable batteries where possible. After prevention and minimization reuse is the next best option when dealing with waste.
Green Procurement	Green Procurement can be defined as the procedure where environmental considerations are included in the procurement process. Waste generation and the impact on the environment, particularly when viewed over the lifetime of a product, can be greatly influenced at the procurement stage.

5.1.11 Risks with Handling Medical Waste

Medical wastes arise from hospitals, clinics and facility with potential during the delivery of care. Medical waste has the potential for transmitting disease particularly to the workers who handle this waste and to anyone that is exposed or may come into contact. The complexity of infectious medical waste and potential risk exposure of blood diseases is a greater risk of contamination through mishandling and unsafe disposal practices.

5.2 BP Protective and Preventative Measures

- 5.2.1 If possible, harmful biological agents should be substituted with less harmful biological agents. Where substitution is not possible, exposure should be prevented and at least reduced to as low as reasonable possible to protect the health and safety of employees and anyone potentially at risk.
- 5.2.2 Employees may not eat or drink in any area where there is a risk of contamination. Employees must be provided with suitable washing and toilet facilities, access to Anti-Bacterial Gel, at all times, during the handling of medical waste or potential exposure to biological hazards, to prevent exposure.
- 5.2.3 The aim of good waste segregation, handling, containment, disposal and packaging is to minimise /eliminate hazard exposure.

5.3 BP Waste Handler Responsibilities

Every BP generating medical waste shall appoint personnel in the management of waste. This person shall be properly trained (ref: 5.18) and familiar and take responsibility for the proper management of medical wastes. The basic elements of an up-to-date healthcare waste management system, for all medical waste handlers, include:

- 5.3.1 A proper understanding of the nature of the waste generated.
- 5.3.2 The ability to identify and segregate hazardous waste.
- 5.3.3 The use of right segregation and packaging of waste to eliminate biological hazard.



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- 5.3.4 Protection measures to eliminate risk exposure during storage, handling and transportation.
- 5.3.5 Understanding packaging, labelling and consignment of hazardous waste.
- 5.3.6 Only use licensed carriers and appropriate vehicles for transportation.
- 5.3.7 Use of a uniform tagging and tracking system to identify source and track disposal.
- 5.3.8 Knowledge of the DM approved final disposal to suitably licensed carriers.
- 5.3.9 Retention & maintenance of comprehensive records of waste generation.
- 5.3.10 Personal Accountability & performance measurement of handling medical waste.

5.4 Sharps Disposal

Contaminated sharps must be collected into a dedicated “sharps disposal” box.

Note: for example purposes only



A sharps disposal box should be:

- 5.4.1 Made of strong, rigid, puncture-proof materials.
- 5.4.2 Impermeable and able to be permanently sealed once it is full or ready for disposal.
- 5.4.3 Fitted with non-removable lid with an aperture that prevents removal of sharps waste once dropped in the box.
- 5.4.4 Preferably yellow in color and marked with the biohazard symbol and words “DANGER - USED SHARPS” on the exterior.
- 5.4.5 Should be of size suitable for handling or fitted with a safe handle.
- 5.4.6 Each container should be clearly marked with the name of the originating source from which it arises, date of opening and date of closing and staff handlers signatures.







5.5

Samples of
Medical Waste Disposal Types:

Sharps Container



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<p>Biohazard Waste Bags</p> <p>Note: These are NOT to be handled during the transportation to the Medical Waste Room, must be housed in a rigid, secure, yellow container.</p>	
<p>Biohazard Waste Container</p>	
<p>Radioactive Waste Container (only specialist approved handled this type of wastes)</p>	
<p>Cytotoxic Waste Container</p>	
<p>General Waste container</p>	
<p>Pharmaceutical Waste container</p>	

5.6 Segregation of Medical Waste

5.6.1 Medical Waste Handlers must be aware that medical wastes must not be mixed with non-hazardous general waste streams such as waste from meals, kitchens, offices and medical records.

5.6.1.1 Waste segregation shall take place at source (the point of generation) to effectively reduce only the volume of infectious medical waste but also minimize the risk of contamination.

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- 5.6.1.2 Different groups of clinical waste should be handled differently according to their packaging requirements.
- 5.6.1.3 A sufficient number of appropriate and dedicated containers for holding clinical waste should be placed close to the location where clinical waste is generated so as to facilitate the segregation and minimize handling.
- 5.6.1.4 Clinical waste bags should be put into appropriate yellow waste solid containers as quickly as possible so as to avoid contaminating other materials and to minimize potential human exposure. Containers for holding clinical waste should have secure lids.
- 5.6.2 Medical Waste Collection
- 5.6.2.1 Medical waste shall be collected into dedicated medical wastes storage bags & containers for treatment and safe disposal. The bags / containers shall be color coded and marked according its contents for safe handling. It is not recommended that medical wastes should be re-bagged or decanted.
- 5.6.2.2 Solid medical wastes should be discarded into yellow plastic bags capable of containing the waste without spillage or puncture, and secured in a solid, rigid and contained trolley for the safe transportation.
- 5.6.3 Medical Waste Bag
- Clinical waste must be placed in bag that are leak-proof, impervious to moisture and strong enough to prevent tearing or bursting under normal handling. The Medical Waste Bags should be of one-trip type and should not be reused.
- 5.6.3.1 The medical waste bags should be capable of being sealed in a manner that can prevent spillage of the contents during transportation. Medical Waste Biological Yellow Bags should not be transported from Clinic areas to Medical Waste Rooms, without being housed in a puncture proof, sealed, rigid, yellow container, to avoid Biological hazard exposure, during the transportation.
- 5.6.3.2 The Medical Waste Biological Yellow Bags should be marked properly with the biohazard symbol.
- 5.6.3.3 The following color code of bag corresponding to the type of medical waste shall be adopted, in accordance with the Business Partner needs.
- 5.6.4 Medical Waste Yellow Bag Specification
- 5.6.4.1 Yellow Biological Plastic Bags Medical Waste Specifications
- When used in high risk areas, infectious disease and isolation wards, haemodialysis, and for the disposal of human tissue, the plastic bag it is recommended:
- 5.6.4.1.1 Be of minimum gauge 800 (200 microns) if of low density or minimum gauge 400.
- 5.6.4.1.2 (100 microns) if of high density - with purpose made ties for sealing the



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	<p>Bag.</p> <p>5.6.4.1.3 Have a maximum nominal capacity of 100 liters.</p> <p>5.6.4.1.4 Match the chosen receptacle or fitting in use.</p> <p>5.6.4.1.5 Conform to the recommended color coding system.</p> <p>5.6.4.1.6 When autoclaving, be suitable for this treatment.</p> <p>5.6.4.2 Yellow Biological Plastic Bags Medical Waste Specifications</p> <p>Bags for the storage of medical wastes other those specified in item recommended:</p> <p>5.6.4.2.1 Be of minimum gauge 400 (100 microns) if of low density plastic or minimum gauge 200 (50 microns) if of high density.</p> <p>5.6.4.2.2 Bags in use for waste intended for autoclaving should be made of plastic material that withstand high temperature without melting and a polyethylenepolyamide composite plastic is recommended.</p> <p>5.6.5 Medical Waste Container</p> <p>5.6.5.1 All Biological Waste and Storage Solid Containers, must be labelled with the following for tracking and traceability, in accordance with the operational processes. An example of the requirements on the label and should be completed by the approved Medical Waste Handlers:</p> <p>5.6.5.1.1 Originating Source of Waste (Physical Clinical Location)</p> <p>5.6.5.2 Date of Opening</p> <p>5.6.5.3 Date of Final Closing</p> <p>5.6.5.4 Staff Handlers Signatures</p> <p>5.6.5.2 The solid / rigid containers should be in good condition and free from contamination, damage or any other defects which may impair their safe and secure use.</p>
5.7	<p>Closing of Medical Waste</p> <p>5.7.1 The sealing of plastic bags can be carried out by tying the neck with a purpose made plastic coated metal wire. Staples must not be used as they may cause tearing-off of the bags or cause injury to the handlers.</p> <p>5.7.2 Containers of clinical waste should not be filled above the warning line indicating between 70% and 80% of their maximum volume before sealing. The packaging and sealing should be installed with care to ensure that no clinical waste adheres to the external surface of the containers.</p> <p>5.7.3 Sharps boxes should be properly sealed by the proprietary closure whereas plastic drums by the proprietary closure or tape as appropriate. Plastic bags should be sealed by tying the neck securely to prevent spillage.</p> <p>5.7.4 Plastic drums containing clinical waste with liquids should be securely sealed to prevent spillage. Absorbent materials may be added and placed in the bottom of the containers to prevent seepage of liquids as appropriate.</p>

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5.8	<p>Medical Waste Contingency Plan</p> <p>5.8.1 All healthcare Facilities who handle medical waste must; during the transportation must have a contingency plan for spillage resulting in a rupturing or damaging of any container of waste.</p> <p>5.8.2 All handlers of medical waste must have access to the Biological Spill Kit, Anti-Bacterial Gel and PPE, available at all times, in the event of an incident during the transportation of medical waste.</p>
5.9	<p>Medical Waste Timelines for Removal</p> <p>5.9.1 It is recommended that yellow medical waste bags should be removed, to the waste storage Facility, at least once daily or when three-quarters full. Bags used to store medical waste awaiting collection for disposal must not be filled up more than 80% of its nominal capacity to allow effective closure by tying up its neck.</p> <p>5.9.2 In the event of small accumulation of small quantities of waste, the intervals of storage and collection should not exceed one week.</p> <p>5.9.3 The waste should be kept in the medical waste bag and in a secured solid/ rigid container until collection, and the timeline for storage shall not be exceed longer than 1 month, at which point the waste should be removed for incineration.</p>
5.10	<p>Safe Handling</p> <p>5.10.1 The use of wheeled trolley, rigid container, cart and dedicated container is a must when moving or transporting bags of medical waste from the point source into a designated collection or storage area, in an effort to eliminate blood spills, exposure to biological hazard, sharps or needle stick injuries.</p> <p>5.10.2 At times where manual handling is involved, the necks of the bags should be positioned upright to allow any subsequent handling easily undertaken</p> <p>5.10.3 When handling sharps bags heavy duty gloves should be worn and the bag should be picked up by the handle provided and the other hand should not be used to support the bottom of the bag.</p> <p>5.10.4 Bodily contact with the bags of medical waste should be avoided and during the handling The bags must be kept as far away from the body (arms / legs) to avoid contact. If there is a slightest chance of the biological bag brushing against body when being handled, then an industrial apron or leg protectors need to be worn. Sturdy shoes or industrial “Wellington” boots are also recommended to protect injury against bags accidentally dropped.</p>
5.11	<p>Spillages</p> <p>5.11.1 Business Partner who handle medical waste must have clear written procedures for dealing with biological / hazardous material spillages, as follows:</p> <p>5.11.1.1 Specify the reporting and investigation procedures.</p> <p>5.11.1.2 Specify the use of a safe system of work for clearing up the waste.</p> <p>5.11.1.3 Set out appropriate requirements for decontamination and specify the protective clothing to be worn.</p>

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5.11.2	<p>The ready availability of appropriate spillage kits helps ensure the correct action in the event of a spillage. Such kits are particularly useful at areas handling medical waste, storage, waste treatment and waste disposal sites, and should be carried on all vehicles / modes of transport in transferring medical waste.</p> <p>Contents of Spillage kits may contain, for example:</p> <ul style="list-style-type: none"> 5.11.2.1 Disposable gloves 5.11.2.2 Disposable gown/ apron 5.11.2.3 An infectious waste sack/medicinal waste receptacle 5.11.2.4 Paper towels 5.11.2.5 Disposable cloths
5.12	<p>Personal Protective Equipment</p> <p>It is recommended that personal protective outfits such as overall, mask, disposable gloves or eye protector, wellington boots, prick proof trousers may be worn, in accordance with the Business Partners operational needs if the risk assessment identifies there is a risk to the worker's skin becoming contaminated.</p>
5.13	<p>Occupational Health Immunization for Healthcare Workers</p> <ul style="list-style-type: none"> 5.13.1 A full course of Occupational Health Immunization is recommended for all staff carrying out medical waste handling and disposal operations. 5.13.2 If a person suffers a cut or a laceration notification arising from handling medical waste, this is reportable to DHCR HSE. It is recommended the BP retain if possible sharp / needle, if safe to do so, and where applicable obtain the patients consent (in the event of a needle stick injury) the item that caused the injury to enable identification of the possible infection. Any contaminated clothing should be put into the medical waste stream for disposal.
5.14	<p>Discharging of Medical Waste Sewer Stream</p> <p>Wastes such as disposable bed pan contents, urine contents and contents of the stoma bags, EXCEPT when they arise from designated high risk (Infection Control) areas, may be discharged to sewer via purpose built disposal units. Items which cannot be discharged to the sewer should be placed in a medical waste bag and disposed of in the clinical waste stream.</p>
5.15	<p>Medical Waste Storage Facility</p> <ul style="list-style-type: none"> 5.15.1 Bagged medical waste should not be stored in a non-approved area. It must be taken to a dedicated collection point. The collection point should be an area of adequate size related to the volume of production and frequency of collection. 5.15.2 The waste storage (receiving area) area must be provided with an impervious hard standing. 5.15.3 In each facility there should be a dedicated location for Medical Waste and separately General Waste producers (Waste Storage Area) which is adequate area for temporary on-site storage of clinical waste. 5.15.4 The waste 'storage area' should be located close to the sources of waste generation, within

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reason, given the nature of the contents of storage, so as to minimize waste handling and to facilitate management control.

- 5.15.5 The storage area for the waste awaiting collection, must be secure and lockable. Access to these storage facilities should be limited to those responsible for handling, transporting or disposing of the waste.
- 5.15.6 The storage area shall be air-conditioned or chilled depending on the expected time period over which the waste is to be stored.
- 5.15.7 Basic cleaning tools should be readily available, managed by the waste handlers including among others, disinfectant, granular chlorine compound for blood spillage or suitable equipment and sand available in sealable plastic bags which can be used in the event of any liquid leakage.
- 5.15.8 Outside the storage facility there must be a biohazard warning sign on the external surface entrance door indicating the presence of healthcare risk waste/biohazard displayed at all entrances.
- 5.15.9 This facility should be easily accessible to waste collection vehicles, where possible.
- 5.15.10 Depending on the waste generation quantity, a small lockable cupboard can also be used. Where possible, all clinical waste should be contained in transit / solid / rigid containers inside the storage area.

5.16 Medical Waste Trolley Transporters

- 5.16.1 Trolleys or carts used for the movements of medical waste within the source premises should be designed and constructed in a way that surfaces are smooth and impermeable so that it can be easily cleaned and allow waste to be handled without difficulty.

Example Below:

The trolley design should allow the bags and containers to be properly retained in the trolleys or carts, and to be safely loaded/unloaded and handled without difficulty.

Locks must be kept free of foreign objects to ensure integrity of locking mechanism.

Image of an example of a Solid Medical Waste Containers

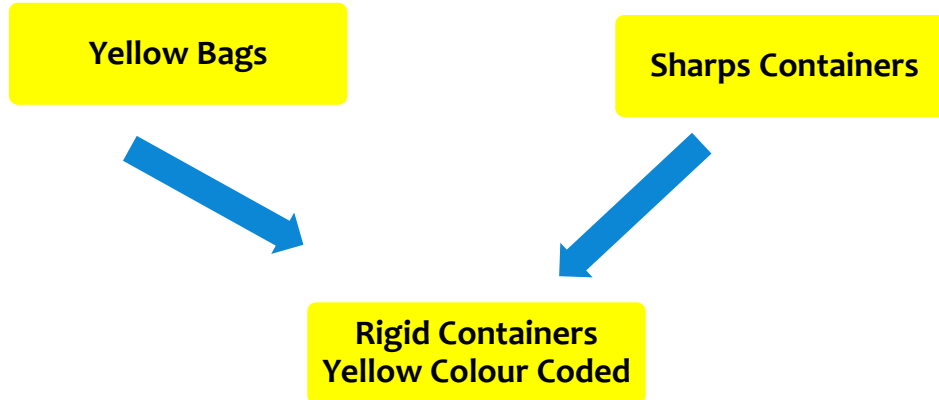


- 5.16.2 The trolleys and carts should be cleaned at the end of each working day, by the owner / user of the trolley and thoroughly disinfected at regular intervals.



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5.16.3 Waste Disposal Routes



5.17 Medical Waste Training

- 5.17.1 All staff who work in areas where medical waste arises should receive instructions and understand the proper way of waste handling, storage, segregation, and disposal procedures.
- 5.17.2 All staff who may be required to move bags of medical waste within a particular location, Should be trained to:
- 5.17.2.1 Check that storage bags are securely sealed.
 - 5.17.2.2 Handle bags by neck only.
 - 5.17.2.3 Know the procedure in the case of accidental spillage and to report promptly such incident to internal management.
 - 5.17.2.4 Check the integrity of the seal of the storage bags when movement is complete.
 - 5.17.2.5 Be able to identify the bag and ensure that the origin of the waste is clearly marked on the bag.
 - 5.17.2.6 Understand the special problems related to handle the contaminated sharps and always wear heavy duty gloves when handling contaminated sharps containers.

5.18 Labelling

- 5.18.1 It is recommended that every container of clinical waste must bear a label, to ensure traceability of origination source (e.g. name of Business Partner / Unit / Ward), retention timelines, handlers details and activity tracking. The label must be securely affixed or pre-printed on a prominent position on the outside of the container which allows the information on the label to be read easily. It is recommended to affix or pre-print a label on each of the opposite sides of the container, if practicable.
- 5.18.2 In addition, it is recommended each container should be marked, by the Business Partner, using BLACK indelible ink, or a tag should be securely attached, to show the origin of the waste (i.e. the name and address of waste producer) and the date of sealing.
- 5.18.3 It is best practice, that all medical waste containers should not be retained in a medical waste room for longer than 1 month. It is advised that all medical waste should be removed



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off site for incineration after 1 month, regardless of container capacity.

5.19 Chemical Classification

5.19.1 Although all chemical wastes may be generally classified as “Poisons”, there are a range of other properties that chemicals can exhibit which are hazardous in addition to potential issues of exposure and toxicity.

5.19.2 Chemical wastes should be classified in accordance with the United Nation’s international convention for dangerous goods.

5.19.3 Types of chemical classification and essential for storage, handling, segregation and disposal methods:

5.19.3.1 UN Hazard Class 3: Flammable Liquids

5.19.3.2 UN Hazard Class 4: Flammable Solids

5.19.3.3 UN Hazard Class 5: Oxidizing Substances

5.19.3.4 UN Hazard Class 6: Poisons

5.19.3.5 UN Hazard Class 8: Corrosive Substances

5.19.4 All chemicals should have these classifications and relevant symbols of the hazards located On the outside the container as an identifiable label. All chemical must have Safety Data Sheet.

5.19.5 The Safety Data Sheet should be read in conjunction with all the chemicals stored or disposed of as some classes when mixed can cause hazardous chemical reactions which can cause fires, explosions, environmental issues or the generation of toxic, flammable and/or corrosive fumes, so an assessment of the Safety Data Sheet is essential to ensure appropriate containment and segregation.

5.19.6 All Hazard Classes should be segregated from each other, except for Classes 3 and 4 which may be stored together; UN Hazard Class 3: Flammable Liquids/ UN Hazard Class 4: Flammable Solids

Note: Acids and Alkalis that are in “Hazard Class 8 – Corrosive Substances”, should be also segregated for the purposes of storage, as they are chemically incompatible

5.20 Chemical Waste

5.20.1 The storage of redundant chemicals and collected chemical wastes needs to be undertaken in a safe and secure manner, and in accordance with recognized segregation practices according to UN Hazard Class and Safety Data Sheet. The following rules should be followed:

5.20.1.1 Where redundant chemicals of the same Class are to be stored on shelves, all liquid wastes should be stored on the lower shelves and solid wastes stored above them.

5.20.1.2 Chemical stores should be protected from the elements, be well ventilated and suitably signposted with the symbol for the appropriate hazard class.

5.20.1.3 Appropriate spill management kits and fire extinguishment equipment should be available for the chemicals being stored.

5.20.1.4 Manifests of the wastes stored must be maintained and be up-to-date. Such

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	manifests should name the chemical wastes, and indicate its Hazard Class, the amount and the type of container.
5.20.1.5	A management plan should be prepared for the chemical wastes identifying possible reuse, recycling, and treatment and disposal options.
5.20.2	Chemical wastes may be disposed of by incineration, if approved by Dubai Municipal authorities. Chlorinated organic wastes (excluding the PVC in health care wastes) should not be incinerated. Chemical wastes must be rendered inactive or harmless by treatment before their disposal to landfill, waste water treatment system or septic tank system.
5.20.3	Chemical Disinfection Disposal Methods Technologies involving maceration and treatment with materials such as chlorine dioxide. Regular testing with standard cultures must be undertaken to ensure the effective performance of the technology. Waste which have been chemically treated and are unrecognizable may be deposited to the general waste landfills.
5.20.4	Chemical Waste Disposal Chemical products may not be flushed into the sewer system. Concentrated chemicals even at small quantities should NEVER be flushed into the sewer.
5.20.5	Chlorinated solvents, water immiscible substance such as chloroform, flammables and water reactive chemicals should never be disposed of into the sewer.
5.20.6	For routine collections of redundant stocks, contact should be made with the wholesaler for advice on proper disposal means, and stocks ready for disposable, would be recommended are stored no longer than 1 month.
5.21	Pharmaceutical Waste
5.21.1	This includes expired drugs, medications, waste materials containing chemotherapy drug residues (syringes, IV bags, tubing, etc.) and drugs that are intended to be discarded.
5.21.2	Pharmaceutical wastes, including Antineoplastics/Cytotoxic drugs, should not be disposed of in the sewer system.
5.21.3	Outdated pharmaceuticals and unusable drugs must be returned to the manufacturer through a reverse distribution process.
5.21.4	All pharmaceutical wastes must be approved for destruction by incineration, with prior Dubai Municipality approval. The disposal of narcotics must occur under the supervision of a Pharmacist, with prior Dubai Municipality, approval.
5.21.5	Disposal of solid pharmaceuticals (e.g., tablets and capsules) should be in accordance with the EPSS Technical Guidelines No: 33 (reference 8.3) - the Disposal of Outdated (redundant) Pharmaceuticals & Medicines.
5.21.6	Disposal of large quantities of liquid pharmaceutical wastes generated, e.g., as a result of closing down a pharmacy, shall be in accordance with DM Technical Guidelines approval. No large amount of liquid pharmaceuticals should be discharged to sewer nor should



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	<p>pharmaceuticals be placed in garbage bin for removal to a domestic waste landfill site.</p> <p>5.21.7 Disposal of pharmaceutical waste via the approved companies must be recorded and these records must be available for inspection.</p>
5.22	<p>Cytotoxic Waste</p> <p>5.22.1 All Cytotoxic waste must be treated and destroyed of in an incineration plant approved by Dubai Municipality. All used, expired, contaminated or discarded Cytotoxic drugs, and Cytotoxic wastes and their residues must be disposed of into the purple waste stream.</p> <p>5.22.2 As a precaution all potentially infectious health care wastes and all wastes generated during the preparation and delivery of Cytotoxic agents to a cancer patient undergoing chemotherapy should be classified and segregated as Cytotoxic waste.</p>
5.23	<p>Radioactive Waste</p> <p>5.23.1 Radioactive wastes should be stored in shielded and isolated dedicated area for not less than 4 half-lives of the isotope in question before disposal. Degraded radioactive waste should be disposed of by incineration or supervised burial at special waste landfill with the Radiation Regulatory Authorities approval.</p> <p>5.23.2 When the radioactive waste is not suitable for discharge or release to the environment or reuse, the holder of the waste shall submit an application to Radiation Regulator for possible procedures for disposal of the radioactive waste.</p> <p>5.23.3 Licensees shall ensure that radioactive substances from authorized practices and sources are not discharged to the environment unless such discharge is within the limits specified in the license and is carried out in a controlled fashion using authorized methods.</p> <p>5.23.4 Licensees shall ensure that radioactive waste is prepared for transport in accordance with requirements of the Radiation Regulatory Authority.</p> <p>5.23.5 Licensees using radioactive material shall, before disposing the radioactive material as waste, consider whether any other organization can make use of the material.</p> <p>5.23.6 No sealed source shall be dismantled for reuse without approval from Radiation Regulatory Authority.</p> <p>5.23.7 Radioactive waste shall be stored in such a way as to protect human health and the environment and in particular shall not be stored in the vicinity of corrosive, explosive or easily flammable materials.</p> <p>5.23.8 Area, facility or room shall be dedicated for the storage of radioactive wastes and it must be clearly demarcated, with special controlled access.</p>
5.24	<p>Autoclaving Facility</p> <p>All autoclaved wastes then should be placed into a yellow bag, labeled before transferring for final off-site disposal.</p>
5.25	<p>Waste Collectors Safety Plan</p> <p>All licensed collectors should make the necessary arrangement and provide</p>



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	adequate training and safety programs to prevent any danger or injury to their staff arising from the handling of waste.
5.26	<p>Dubai Waste Disposal</p> <p>5.26.1 There is a List with Dubai Municipality Waste Management Department for Approved Hazardous Waste Transporters. The frequency of collection should be agreed between waste producer and licensed collector with due account of the nature and quantity of clinical waste generated.</p> <p>5.26.2 Dubai Municipality operates the central medical waste treatment and disposal facility which is located in Jebel Ali next to the landfill area. The plant has the facility to treat the waste arising from all the hospitals, clinics and laboratories in Dubai.</p> <p>5.26.3 Licensed collectors must deliver the clinical waste to a Dubai Municipality licensed disposal facility within 24 hours after collection from waste producers.</p> <p>5.26.4 All potentially infectious healthcare waste may be treated and destroyed of in an incineration plant approved by Dubai Municipality.</p>
5.27	<p>Responsibility of the Generator of Medical Waste</p> <p>The Local Order of Dubai stipulates that the generator of medical waste shall be responsible for it's proper handling and transport to the place of disposal.</p>
5.28	<p>Waste Transportation - Waste Contractor</p> <p>Private clinics must hold a contract with an approved transport company for waste collection and disposal and that information may be shared with the DHCR HSE Department.</p>
5.29	<p>Medical Waste Audit</p> <p>5.29.1 All BP who generate Medical waste should carry out a waste audit for their premises, which should contain the following information;</p> <p>5.29.1.1 Identify the types of waste being generated.</p> <p>5.29.1.2 Identify the quantities being generated.</p> <p>5.29.1.3 Improve waste minimization and segregation.</p> <p>5.29.1.4 Assess the needs for training.</p> <p>5.29.1.5 Assess the types of waste containers needed in each location.</p> <p>5.29.1.6 Organize the proper treatment and disposal arrangements.</p> <p>5.29.2 The audit needs to be conducted by the waste officer for each BP. The audit should involve observation of generation practices, collection of waste, sorting and measurement of waste quantities.</p> <p>5.29.3 The Waste Audit should be completed monthly.</p>
5.30	<p>Enforcement</p> <p>It is the responsibility of the Business Partners to ensure compliance with the DHCR HSE Waste Guideline and non-conformance of Dubai Municipality Waste Local Order may result in fines or sanctions.</p>

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6- Communication: (Check all that apply)

<input checked="" type="checkbox"/>	Announcement
<input type="checkbox"/>	Awareness
<input checked="" type="checkbox"/>	Training
<input type="checkbox"/>	Other specify

7- Definitions:

Biological agents:	Means preparations made from living organisms and their products including vaccines, cultures including those that have been genetically modified, cell cultures and human endoparasites, which may provoke any infection, allergy or toxicity. And intended for use in diagnosing, immunizing or treating humans or animals
Bulky Waste:	Large items of solid waste such as obsolete furniture, beds and mattresses
Chemical Waste:	Classified and segregated by a qualified pharmacist or biomedical laboratory with an understanding of chemistry and the potential hazards of chemicals.
Chemotherapy Waste:	Means all materials that have come into contact with and have trace amounts of cytotoxic/antineoplastic agents
Cytotoxic waste:	Means waste containing cytotoxic drugs that are toxic to living cells
Container:	Means any portable device in which a medical waste is stored, transported, disposed or otherwise handled
Contaminated:	Means soiled or made inferior or potentially infectious through physical contact or mixture with medical waste
Dangerous Goods:	A dangerous good is any solid, liquid or gas that can harm people, other living organisms, property, or the environment
Disposal:	Refers to any or combination of the following means or processes where a waste is subjected to or rendered for: <ul style="list-style-type: none"> ▪ Direct tipping into landfill; ▪ Deposit to any land or sea environment; ▪ Incineration, burning or combustion in controlled manner for the purpose of getting rid of waste material; ▪ Final deposit at any DM waste treatment complex

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	<p style="text-align: right;">or landfill;</p> <ul style="list-style-type: none"> ▪ Export to other Emirate(s); or ▪ Export to any country outside of UAE ▪ The process of segregation and recovery of the materials for the purpose of recycling or reuse is not considered a disposal
Difficult Waste:	Is the non-hazardous material which requires special handling to avoid any unacceptable annoyance or environmental impact
DM:	Dubai Municipality Waste Department
Dubai Emirate Regulatory Body:	Dubai Municipality Waste Management Department
EPSS:	Environment Protection & Safety Solution
General Waste:	all non-hazardous waste materials such as paper, cardboard, glass, metal and plastic; uncontaminated packaging materials; food scraps, garden pruning's, etc
Green Waste:	Waste arising from gardens, public parks consisting of garden trimmings, leaves, shrubs, plants, grass, trees
Hazardous Materials:	Solid, liquid or gas materials hazardous to mankind health severely affects the environment such as toxic explosive, flammable or ionized radiation materials.
Hazardous waste (a):	Is a waste or mixture of wastes containing one or more properties of a hazardous substance, i.e., being toxic, infectious, corrosive, flammable, oxidizing, radioactive, reactive or explosive which, at certain concentration or condition and improper handling, can cause substantial harm to human, properties or to the environment.
Hazardous waste (b):	In addition to the above descriptions, the following wastes are also considered a hazardous waste <ul style="list-style-type: none"> ▪ Medical wastes ▪ WEEE or e-wastes due to its harmful components ▪ Any other waste unsuitable for direct disposal into the traditional landfill or sewer system due to the presence of hazardous chemical or physical components harmful to the environment.
Handling:	Means to store, transfer, collect, separate, process, incinerate, treat or dispose of

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Healthcare:	The medical activities such as diagnosis, monitoring, treatment, prevention of disease or alleviation of handicap in humans including related research performed under the supervision of a medical practitioner
Healthcare Waste:	The solid or liquid waste arising from healthcare
Incineration:	Means a processing method using properly engineered equipment used for thermal oxidation and the conversion of combustible material into noncombustible residues (ash) and product gases
Label:	Means a written sentence or a unique sign, stuck or printed. Attached to a thing to define its contents, owner or consignee
Laboratory:	Means any research, analytical or clinical facility that performs health care related analysis or service
Landfill:	Means the DM run disposal facility where medical waste is placed in the ground
Material Recovery Facilities:	Facilities where recyclables are sorted into specific categories and processed, or further transported to processors for remanufacturing
Medical Waste:	<p>Is used and shall denote the wastes as described in (a) and (b) below:</p> <p>(a) Any waste which consists wholly or partly of human or animal tissue, blood or other body fluids, excretions, dressings, swabs, syringes, needles or other sharp instruments, drugs or other pharmaceutical products and radioactive wastes from hospitals or clinics, being waste which unless rendered safe may prove to be hazardous to any person coming into contact with it; and</p> <p>(b) any other waste arising from medical treatment, nursing care, dental, veterinary, pharmaceutical, investigation, teaching, research, the collection of blood for transfusion, and from any similar practice, being waste which may cause infection to any person coming into contact with it. Further classification includes:</p> <ul style="list-style-type: none"> ▪ Biological (recognisable anatomical waste) ▪ Infectious ▪ Chemical, toxic or pharmaceutical including cytotoxins ▪ Sharps (e.g. needles, scalpels, sharp broken materials) ▪ Radioactive (refer to Radioactive Waste Directive(s))



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MSDS:	Material Safety Data Sheet – is a document that contains information on the hazard evaluation on the use, storage, handling and emergency procedures related to that material
Radioactive Materials:	Radioactive materials are wastes generated by, several areas of a health care facility including nuclear medicine, nuclear cardiology, radiation oncology, blood bank, clinical laboratories, and research laboratories. Although X-rays are a form of radiation, they do not “contaminate” items and therefore, are not a source of radioactive wastes.
Radioactive waste:	Liquids, or gases. Occasionally, “mixed waste” will be generated. “Mixed waste” is waste that contains both hazardous waste and radioactive material; it must be managed in accordance with Dubai Municipality regulations
Recyclables:	Waste materials that may be subjected to any process or treatment to make it re-useable in whole or in part
Recycling:	The subjection of waste to any process or treatment to make it re-useable in Whole or in part
Sharps:	Sharps are items that could cause cuts or puncture wounds. They include needles, hypodermic needles, scalpels and other blades, knives, infusion sets, saws, broken glass, and nails. There are two primary sources: <ul style="list-style-type: none"> ▪ those used in animal or human patient care/treatment ▪ those arising from non-healthcare community sources, for example body piercing and decoration, and substance abuse
Sharps Box:	Means a rigid puncture-resistant container which when sealed is leak resistant and cannot be reopened without great difficulty
Sharps Waste:	Means any device having acute rigid corners, edges or protuberances capable of cutting or piercing but not limited to, all of the following: - <ul style="list-style-type: none"> ▪ Hypodermic needles, syringes, blades and needles with attached tubing ▪ Broken glass items such as Pasteur pipettes and blood vials contaminated with medical waste



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Storage:	Means the temporary holding of medical waste at a designated accumulation area before treatment, disposal or transport to another location
Transport:	Means the movement of medical waste from its point of generation to its point of ultimate disposition
Waste:	Means any material disposed of because it is no longer needed. It includes general wastes, hazardous wastes, difficult waste and other wastes as classified.
WEEE:	Waste Electrical and Electronic Equipment (WEEE): General rule if it has a plug or battery it's WEEE. E.g.: large/small household appliances, IT & telecommunication equipment, consumer equipment, lighting equipment, electrical and electronic tools, toys, leisure and sports equipment, medical devices, monitoring and control equipment, automatic dispensers.

8- Reference:

8.1	Local Order 11 of 2013 Concerning Public Health & Community Safety in the Emirate of Dubai
8.2	EPSS Technical Guidelines No: 33 - the Disposal of Outdated (redundant) Pharmaceuticals & Medicines.
8.3	Waste Management Department Technical Guidance Number 2
8.4	Dubai Municipality Environment Department Code of Practice on the Management of Medical Waste from Hospitals, Clinics and Healthcare Premises in Dubai
8.5	Local order no.61 of 1991 Environment protection
8.6	Ministerial Decree (57/2004) Regulations for Radioactive waste management
8.7	Ministerial Decree (56/2004) Regulations for safe transport of radioactive material
8.8	Dubai Municipality Local Order 115 - Management of medical waste
8.9	Federal Law No (1) 2002, Regarding the Regulations and Control of the use of Radiation sources and Protection against their Hazards
8.10	Federal Law (No.) 24 of 1999 and modified by Federal Law (No.) 11 for 2006 regarding Protection & Development of the Environment
8.11	Executive Order of Federal Law No. 24 of 1999 for Regulation of Handling Hazardous Materials, Hazardous Wastes and Medical Wastes, issued by Cabinet Decree No. 37 of 2001



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8.12	Local Order (No.) 7 of 2002 on Management of Waste Disposal Sites in the Emirate of Dubai; as amended by Local Order No. (5) of 2003
8.13	Local Order No. (115) of 1997 Concerning Medical Wastes Management in the Emirate of Dubai
8.14	Dubai Municipality Technical Guidelines No 47 Disposal of used chemical containers
8.15	Dubai Municipality Technical Guidelines No 6 Disposal of Hazardous Waste
8.16	Dubai Municipality Technical Guidelines No 5 Requirement for the Transport of Hazardous Waste
8.17	World Health Organisation Safe Management of Wastes from health-care activities
8.18	Dubai Municipality Technical Guidelines No 59 on management of medical waste from clinics and laboratories
8.19	DHCA Governing Regulation No. 1 of 2013.
8.20	DHCR HSE Incident Reporting Policy
8.21	DHCR HSE Risk Assessment Policy
8.22	DHCR HSE Biological Spill Procedure
8.23	DHCR HSE Hazardous Material Guidance



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Revision History

S No:	Summary	Amend Type*	Page	Issue No.	Issue Date
1.	Technically Reviewed and Templated	Modify	all	1	23/5/2018
2.					
3.					
4.					
5.					
6.					

* Amend Type: New- Add – Modify – Cancel