



STANDARD OPERATING PROCEDURE FINAL DISPOSAL OF RISK & NON-RISK WASTE

Effective Date: 01/01/2020



1. Purpose

To ensure safe handling and disposal of risk and non-risk waste generated, in accordance with Hospital Waste Management Rules, 2005 and Hospital Waste Management Plan.

2. Scope

It is envisaged that through this intervention the likelihood of environmental disease due to improper disposal of hospital waste within and outside the facility will be controlled to a reasonable extent.

3. Responsibilities

Sr. No	Action	Lead Role	Support Role
3.1.	Training	Ward Master	MS
3.2.	Leading of staff and Monitoring of Activity	Ward Master	MS
3.3.	Provision of PPEs and Accessories	Ward Master	MS
3.4.	Installation, handling, placement and proper use of color coded bins	Ward Master	MS
3.5.	Utilization of color coded waste bags according to Waste Management Plan	Incinerator Operator/ Sweeper	MS/Ward Master
3.6.	Incineration of waste according to the procedures mentioned in section 7	Incinerator Operator	Ward Master
3.7.	Proper handling of equipment and maintenance	Incinerator Operator	Ward Master

4. Policy and Legal Requirements

- 4.1. Gilgit-Baltistan Environmental Protection Act 2014
- 4.2. Hospital Waste Management Rules 2005
- 4.3. Gilgit-Baltistan Hospital Waste Management Rules 2019 (Draft)
- 4.4. National Environmental Policy 2005
- 4.5. National Sanitation Policy 2006
- 4.6. National Environmental Quality Standards (NEQS)

5. General Requirements

- 5.1. Incinerator and Accessories;
- 5.2. Availability of electricity and water;



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- 5.3. PPE (Gloves, coverall, long shoes, Glasses, Mask, Soap, Helmet);
- 5.4. Waste collection and transportation equipment.

6. Procedure

Sr. No	Action	Responsibilities	
		Lead Role	Support Role
6.1.	Collection and Storage		
6.1.1.	Receive color coded waste bags from sweeper	Incinerator Operator	Ward Master
6.1.2.	Place color coded bags in allocated space	Incinerator Operator/ Sweeper	Ward Master
6.1.3.	Ensure safe disposal of risk and non-risk wastes.	Incinerator Operator/ Sweeper	Ward Master
6.2.	Protective Measures		
6.2.1.	Ensure provision of PPE (Gloves, Masks, Helmet and Coverall for incinerator operators and support sanitary staff)	Ward Master	MS
6.2.2.	Ensure vaccination of sanitary staff especially Hepatitis A & B	Ward Master	MS
6.2.3.	Ensure personal hygiene practices especially washing hands after handling of waste	Ward Master	MS
6.2.4.	Ensure provision of adequate quantity of bags in facility	Ward Master	MS

7. Risk Waste

Risk waste shall be separated from non-risk waste at the point of generation in red waste bags containing sharps. These color coded bags are collected separately from primary waste collection point and transported to incineration point and then handed over to incinerator operator.

Sr. No	Action	Lead Role	Support Role
7.1.	Waste Incineration		
7.1.1.	Warm-up Procedure a) Check electric supply and fuel (Diesel or Gas) b) Open main switch for electric supply to the incinerator panel c) Open valve for water circulation in scrubber and pump d) Set timer e) Fix selector towards desired fuel consumption f) Push Blower One Button to start blower-1	Incinerator Operator	Ward Master



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	<p>g) Wait for 30 seconds h) Push Blower Two Button to start blower-2 i) Wait for 30 seconds j) On burner-1 by pushing burner-1 button on the panel board k) Wait for one minute l) Check by opening front door that burners are ignited m) Check by opening front door that burners are ignited n) Wait 10-15 minutes to warm the incinerator</p>		
7.1.2.	<p>Working Instructions a) Put about 10-12 kg dry waste first after weighing it on the scale in the incinerator chamber b) Check after 5 minutes and add more waste inside the chamber c) Monitor temperature gauge fixed on the panel d) Add more waste weighing about 15kg inside the chamber e) Leave it to burn for 7-10 minutes on 8000-10000C f) Put body parts, blood bags when temperature is raised up-to 10000C g) Check burning status by opening door and tilt waste upside down as required h) On completion of incineration remove ash and dispose accordingly i) Monitor the water coming from scrubber j) Record total weight burnt, time, fuel type and consumption as per format provided at Schedule I.</p>	Incinerator Operator	Ward Master
7.1.3.	<p>Precautionary Measures a) Always complete steps given in warm up procedures b) Put small amount of dry waste initially to get required temperature c) Ensure that liquid containers must be empty before incineration d) Never put organic waste (fruits or vegetables) this may drop the temperature e) Put body parts and blood bags when incinerator temperature reaches at 10000C f) Disconnect electricity, water supply and burning fuel soon after closing incineration process</p>	Incinerator Operator	Ward Master



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8. Non-Risk Waste

The non-risk waste and ashes from incinerator will be transported in sealed plastic bags to land fill sites for final disposal by means of Waste Management Companies.

9. Definitions

<i>Categories of Waste</i>	<i>Description</i>
Risk waste (infectious)	<u>Infectious and Pathological Waste</u> Dressings, bandages and cotton contaminated with blood or body fluids, gloves and masks contaminated with blood or body fluids, suction canisters, tissues, organs, fetus, body parts, tubes and containers contaminated with blood or body fluids, microbiological culture/media. <u>Sharps</u> Hypodermic needles, intravenous set needles, broken vials and ampoules, scalpels, blades, saws, petri dishes and cover slips, broken pipettes and syringes
Special Waste	<u>Chemicals, Pharmaceutical and Cytotoxic Waste</u> Broken thermometers and blood-pressure gauges, spilt medicines, spent disinfectants waste anesthetics gases, fixative, formalin, xylene, toluene, methylene etc.
Non-Risk Waste (General Waste)	<u>Non-Hazardous or General Waste</u> Packaging, food scraps, paper, flowers empty saline bottles, non-bloody diapers, non-bloody intravenous tubing and bags, uncontaminated gowns, gloves, masks, hats and shoe covers, plastic containers



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Schedule I

Record Keeping

Maintain record keeping register with following fields;

<i>Sr. No</i>	<i>Date</i>	<i>Infectious waste received (kg)</i>	<i>Infectious waste burnt (kg)</i>	<i>Quantity of Fuel Used</i>	<i>Non-infectious waste received (kg)</i>	<i>Quantity of Sharps received (kg)</i>