


Yellow Category

Category	Type of waste	Colour & Type of Container
Yellow Category	<ul style="list-style-type: none"> - Human Anatomical Waste - Animal Anatomical Waste - Soiled Waste - Discarded or Expired Medicine - Microbiology, Biotechnology and other clinical laboratory waste - Chemical Waste (yellow-e) - Chemical Liquid Waste 	<p>Yellow coloured non-chlorinated Plastic Bags</p>  <p>Note: (i) Chemical waste (yellow-e) comprising of un-used, residual or date expired liquid chemicals including spent hypo of X-Ray, should be stored in yellow container</p>

Type of Waste:

Yellow (a): Human Anatomical Waste

Segregation

Human tissues, organs, body parts and fetus below the viability period. This includes, placenta and extracted tooth.

Type of bag and container

Collect the waste in yellow colored non chlorinated plastic bag and store in yellow coloured container

Treatment and Disposal:

For HCF having linkage with CBWTF

No treatment of waste is required to be carried out at the health care facility except pre-treatment (sterilization) of Yellow (h) category waste by autoclaving/ microwaving/ hydroclaving or sterilize as per methods prescribed in WHO Blue book 2014. Yellow category waste along with pre-treated waste should be stored in central storage point and must be handed over to CBWTF. It is mandatory for each health care facility that dead fetus waste should be handed over to CBWTF in yellow bag with a copy of the

official Medical Termination of Pregnancy (MTP) certificate from the Obstetrician or the Medical Superintendent/ SMO/ CMO of the HCF.

For HCF without linkage to CBWTF

This waste should be disposed through Plasma Pyrolysis unit or twin chambered compact incinerator with 2 seconds retention time in secondary combustion chamber and adequate air pollution control devices to comply with revised emission norms prescribed under BMW Management Rules, 2016.

Disposal of the waste in the deep burial pit should not be practiced unless the hospital is located in rural or remote isolated place. Use of deep burial pit should be as authorised by the respective SPCB/PCC.

Copy of official MTP certificate from the MO I/C for fetus below the vitality period must be kept with the HCF.

Type of Waste:

Yellow (b): Animal Anatomical Waste

Segregation

This waste includes experimental animal carcasses, body parts, organs, tissues, including the waste generated from animals used in experiments or testing in veterinary hospitals or colleges or animal houses.

Type of bag and container

Collect the waste in yellow coloured non chlorinated plastic bag and store in yellow coloured container.

Treatment and Disposal:

For HCF having linkage with CBWTF

No treatment of waste is required to be carried out at veterinary hospital except pre-treatment (sterilization) of Yellow (h) category waste (if applicable) by autoclaving/ microwaving/ hydroclaving or sterilize as per methods prescribed in WHO Blue book 2014. Yellow category waste along with pre-treated waste should be stored in central storage point and must be handed over to CBWTF.

For HCF having own treatment and Disposal facility

Animal anatomical waste should be disposed through Plasma Pyrolysis unit or twin chambered compact incinerator with 2 seconds retention time in secondary combustion chamber and adequate air pollution control devices to comply with revised emission norms prescribed under BMW Management Rules, 2016.

Animal anatomical waste can also be disposed in captive deep burial pits only in case of those veterinary hospitals located in rural or remote isolated place. Use of deep burial pit should be as authorised by SPCB/PCC.

Type of Waste:**Yellow (c) - Soiled Waste****Segregation:**

Items contaminated with blood/body fluids like dressings, plaster casts, cotton swabs and bags containing residual or discarded blood and blood components. This includes used infectious material such as caps, shoe-cover, blotting paper/gauze, wooden swab stick, paraffin blocks, indicators tapes and disposable (single use non-linen based) masks and gowns.

Type of bag and container: Collect the waste in yellow coloured non chlorinated plastic bag and store in yellow coloured container

Treatment and Disposal:**For HCF having linkage with CBWTF**

No treatment of waste is required to be carried out at the health care facility. Waste must be handed over to CBWTF

For HCF having own treatment and Disposal facility

Soiled waste should be disposed through Plasma Pyrolysis unit or in twin chambered compact incinerator with 2 seconds retention time in secondary combustion chamber and adequate air pollution control devices to comply with revised emission norms prescribed under BMW Management Rules, 2016. In absence of above, soiled waste can also be treated by autoclaving or micro-waving/ hydroclaving followed by shredding or mutilation or combination of sterilization and shredding for ultimate disposal through waste to energy plants.

Soiled waste can also be disposed in captive deep burial pits only in case of the hospitals located in rural or remote isolated place. Use of deep burial pit should be as authorised by SPCB/PCC.

Type of Waste:**Yellow (d) - Expired and Discarded Medicine**

Segregation: Pharmaceutical waste like antibiotics, cytotoxic drugs including all items contaminated with cytotoxic drugs along with glass or plastic ampoules, vials etc.. This includes cytotoxic drugs dispensed in dextrose / saline bottles and disposables used in delivery of cytotoxic drugs.

Type of bag and container: Collect all the expired and discarded medicines except for cytotoxic drugs waste in a separate yellow colored non chlorinated plastic bag (different form being used for human anatomical waste) and store in yellow colored container.

All the cytotoxic drugs including all items contaminated with cytotoxic drugs along with glass or plastic ampoules, vials etc must be collected in separate yellow colored non chlorinated plastic bag labeled as cytotoxic hazard.

Treatment and Disposal:**For HCF having linkage with CBWTF**

No treatment of waste is required to be carried out at the health care facility. As per BMW Rules, 2016 all the expired and discarded medicines including cytotoxic drugs expired `cytotoxic drugs are either returned back to the manufacturer or are handed over to the CBWTF to be disposed of through incineration at temperature > 1200°C.

For healthcare facilities where there no established system for returning the drugs to the manufacturer it is recommended that the expired and discarded medicines are handed over only to CBWTF for disposing of through incineration.

For HCF having own treatment and Disposal facility

Expired and discarded medicines are required to be sent back to manufacturer or can be disposed through nearest common biomedical Waste or Hazardous waste incinerators with prior intimation to SPCBs./PCCs.

This waste can also be disposed through twin chambered captive incinerator with 2 seconds retention time in secondary combustion chamber, which can withstand a temperature of 1200°C and having adequate air pollution control devices to comply with emission norms.

Type of Waste: Yellow (e) - Chemical Waste**Segregation:**

This waste comprises of chemicals used in production of biological, discarded containers of chemicals and disinfectants etc. This includes solid or liquid residual chemicals used in HCFs.

Type of bag and container: Collect solid chemical waste in yellow coloured containers or non-chlorinated yellow plastic bag. Collect un-used, residual or date expired liquid chemicals in yellow container.

Treatment and Disposal:**For HCF having linkage with CBWTF**

No treatment is required to be carried out at the facility. The chemical waste (liquid or solid chemicals) should be collected into different yellow coloured plastic containers, whereas empty chemical containers with residual chemicals should be collected in yellow bags and handover to CBWTF operator for final disposal by incineration. It is required to specify the name of chemical on the yellow containers so that it would help CBWTF operator to decide whether to incinerate or transfer to Hazardous Waste TSDF for final disposal.

For HCF having own treatment and Disposal facility

This waste should be incinerated in captive incinerator or it can be sent to nearby Hazardous Waste TSDF for final disposal

Type of Waste: Yellow (f) - Chemical Waste

Segregation:

Liquid waste generated due to use of chemicals in production of biological and used or discarded disinfectants, silver X Ray film developing liquid, discarded formalin, infected secretions, aspirated body fluids, liquid from laboratories and floor washings, cleaning, house-keeping and disinfecting activities, etc. Leftover, unused, residual or date expired liquid chemicals shall not be discharged as chemical liquid waste.

Type of bag and container: Not applicable since this liquid waste containing waste chemicals is collected and pre-treated prior to disposal through Effluent Treatment Plant. However, recyclable liquid chemicals such as spent X-ray hypo should be collected in yellow containers and sold or given to only authorised recyclers for resource recovery.

Treatment and Disposal:

As per the BMW Rules 2016, the chemical liquid waste of the hospital must be collected through a separate collection system for pre-treatment. Hospitals with large standalone labs shall install separate drainage system leading to pre-treatment unit prior to mixing the same with rest of the wastewater from hospital for further treatment. For middle and small healthcare facilities having no system of separate drainage/collection system, the liquid waste is required to be collected on-site in containers for pre-treatment before mixing the same with other wastewater. Silver X ray film developing fluid should be given or sold to the authorized recyclers for resource recovery, else it should be handed over to CBWTF as yellow(e) chemical waste.

Depending on type of chemical effluent generated, pre-treatment should comprise of neutralization/precipitation, followed by disinfection prior to mixing with rest of the wastewater from hospital. Prior to mixing with rest of the hospital effluent, disinfection should be done preferably by passing the effluent through UV sterilizer rather than using disinfecting chemicals since use of chemicals may affect performance of biological treatment in down-stream.

Type of Waste: Yellow (g) - Discarded Linen, Mattresses, beddings contaminated with Blood, body fluids, routine mask and gown.

Segregation

This includes discarded linen from bedsheets, beddings, re-usable routine masks and gowns.

Type of bag and container:

Collect the waste in yellow coloured non-chlorinated plastic bag and store in yellow coloured container

Treatment and Disposal:

For HCF having linkage with CBWTF

Disinfect the waste linen with non-chlorinated chemical disinfection and hand over to the CBWTF operator for final disposal by incineration. The waste mattresses should be cut into pieces and disinfected and can be sent to the CBWTF operator for final disposal by incineration. Alternatively, waste mattresses can be cut into pieces and disinfected with non-chlorinated chemicals for disposal as general waste (dry-waste) for energy recovery in cities having waste to energy plants or RDF (Refuse Derived Fuel) plants.

The waste mattresses shall not be sold or auctioned. Used bed sheets that are not soiled and re-usable can be sold or auctioned only after washing and disinfection. Disposable (single use non-linen based) masks and gowns, after use shall be treated as yellow-c (soiled waste).

For HCF having own treatment and Disposal facility

The waste mattresses after cutting into pieces and disinfected with non-chlorinated chemicals and can be incinerated in captive incinerator or can be disposed as General waste in dry bins in cities having RDF or waste to Energy Plants.

Type of Waste: Yellow (h) Microbiology, Biotechnology and Other Clinical Laboratory Waste:

Segregation:

Microbiology, Biotechnology and other clinical laboratory waste, waste blood bags (containing date expired or contaminated blood), Laboratory cultures, stocks or specimen of micro- organisms, live or attenuated vaccines, human cell cultures used in research, industrial laboratories, production of biological, residual toxins, dishes and devices used for cultures. This includes plastic culture plates and other highly infectious wastes.

Type of bag and container: Collect the waste in yellow coloured non chlorinated plastic bag and store in yellow coloured container

Treatment and Disposal:

For HCF having linkage with CBWTF

Pre-treatment by disinfection before handing over the waste to CBWTF operator. Pre-treatment can be done by autoclave / microwave / Hydroclave.

Pre-treatment can also be done by using non-chlorinated chemical disinfectants like aldehydes, lime based powders or solutions, ozone gas, ammonium salts and phenolic compounds.

The pre-treated waste bags should be handed over to CBWTF operator on daily basis.

For HCF having own treatment and Disposal facility

Pre-treated waste should be disposed off by a HCF by installing twin chambered compact incinerator with 2 seconds retention time in secondary combustion chamber and adequate air pollution control devices to comply with revised emission norms prescribed under BMW Management Rules, 2016.

Pre-treated waste can be disposed in captive deep burial pits in case of the hospitals located in remote in rural or isolated places. Use of deep burial pit should be as authorised by SPCB/PCC.