

Guidelines for Bar Code System for Effective Management of Bio-medical Waste

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**Guidelines for Bar Code System for Effective Management
of Bio-medical Waste Central Pollution Control Board
(Ministry of Environment, Forest and Climate Change)**

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Introduction Bio-medical Waste Management Rules, 2016 notified on 28.03.2016 and as amended thereof under the Environment (Protection) Act, 1986, stipulates that it is the duty of every Health Care Facility (HCF) to establish a bar code system for bags or containers containing biomedical waste (BMW) to be sent out of the premises or place for any purpose, by 27.03.2019. Also, Rule 5 of the BMW Rules, 2016 stipulates that it is the duty of the every Operator of Common Bio-medical Waste Treatment Facility (CBWTF) to establish bar code system for handling of bio-medical waste.

These guidelines have been prepared to facilitate and provide guidance to both the Occupier as well as Operator of CBWTF to establish bar code system and also to have uniformity in adoption of the bar code system throughout the country, thereby ensuring effective enforcement of the BMW Rules, 2016.

Stakeholders responsible for Implementation of the Bar Code System

According to BMWM Rules, 2016 as amended, following stakeholders are responsible for implementation of the Bar Code system as detailed below:

(a) Prescribed Authority:

The State Pollution Control Board (SPCB) in respect of the State,

Pollution Control Committee (PCC) in respect of the Union Territory (UT)

and Director General, Armed Forces Medical Services (DGAFMS) in respect of Armed Forces Health Care Establishments

fall under the jurisdiction of the Ministry of Defense are the prescribed authority for overall enforcement of the BMWM Rules, 2016 including implementation of Bar code system..

(b) Health Care Facility:

The person having administrative control over the institution and the premises generating bio-medical waste, which includes a hospital, nursing home, clinic, dispensary, veterinary institution, animal house, pathological laboratory, blood bank, health care facility and clinical establishment, is responsible to implement bar code labelling system.

(c) Operator of a Common Bio-medical Waste Treatment Facility (CBWTF):

The person who owns or controls a Common Bio-medical Waste Treatment Facility (CBWTF) for the collection, reception, storage, transport, treatment and disposal or any other form of handling of bio-medical waste is also responsible for implementing a Bar coding system.

BMWM Rules does not stipulate any responsibility to the bar code vendor (that is a person supplying and distributing bar coded bags or container with bar coded labels). However, such vendors may provide bar code labels compatible with bar-code management system software and in accordance with these guidelines.

Bar Code Label :

Bar code labeling may be of two types as given below

- (i) Bar code or QR code label can be pre-printed directly on the designated colour coded bags /containers, which may be procured by HCF through the Operator of a CBWTF providing services to them or through any vendor, fulfilling the specifications stipulated under these guidelines; or**

- (ii) Bar code or QR code labels can be pasted on the designated colour coded bags/ containers, which can be procured by the HCF either through the Operator of a CBWTF providing treatment services to the HCF or through Vendor.**

In both cases, thickness of colour coded bag used for segregation and handling of bio-medical waste should be as per Plastic Waste Management Rules, 2016 as amended thereof i.e. equal to or more than 50 μ .

THE CHARGES

The charges for bar coded labels or pre-printed bar coded label or QR code label may *be levied by the Operator of a CBWTF or a Vendor as per the prevailing rates to the Occupier* or as per the agreement between the Occupier and Operator of CBWTF/Vendor.

Vendors shall consult the CBWTF and the Software Provider so as to ensure compatibility with software system being adopted by Operator of CBWTF.

Implementation of Bar Code Based Waste Management System

Implementation of the bar code system is the joint responsibility of the Occupier as well as Operator of a CBWTF as prescribed under the BMWWM Rules, 2016 as amended thereof. Bar Code Based Waste Management software should be installed and operated by the CBWTF who is providing services of bio-medical waste treatment and disposal.

Each member HCF shall obtain access to the Bar Code Based Waste Management System from the facility operator.

Requirements of barcode based waste management system and the role of HCFs and the Operator of CBWTF are given below:

(a) Healthcare Facilities;

(b) i. In case of Health Care Facilities (HCFs) having 30 or more no. of beds

shall have to procure their own digital weighing machine and bar code scanner (scanning equipment or app based mobile scanner). The weighing machine and scanner unit shall have wired or wireless connection and the data pertaining to the weight of the scanned bags should get transferred automatically. Also, the HCF is required to scan all the bar coded bags containing bio-medical waste. Upon scanning of all the bags by the HCF, the data shall be transmitted to the data base of bar code waste management system, however, the data gets lodged into the data base only after the operator of the facility accepts the waste on his console and generates waste acceptance receipt. The waste acceptance receipt shall be printed (it should be clearly legible and should not fade atleast for a period of five years) on the spot and handed over to the HCF before departure of the transportation vehicle from the premises. Such receipt can also be generated digitally and sent by e-mail to all the concerned.

ii. Whereas, HCFs having < 30 no. of beds as well as all other Occupiers as defined under the BMW Rules, 2016,

are not required to scan their bags containing biomedical waste. Same shall be done by the CBWTF operator on arrival at the premises. The CBWTF shall always carry scanning and weighing machines alongwith portable printer (connected with wired or wireless systems with automatic transfer of data pertaining to weight of scanned bags). The Occupier shall obtain receipt printed by facility operator prior to his departure from HCF premises (the receipt should be clearly legible and should not fade atleast for a period of five years). The data gets lodged into the data base once the waste picker (CBWTF Operator) generates waste acceptance receipt.

iii. Obtain access Login and password for Bar Code Based Waste Management System software from the CBWTF Operator.

iv. Collect proof (counter signed by the CBWTF Operator) of waste collection or Waste acceptance receipt comprise of date, time, no. of bags, total weight of colour coded bags/containers.

v. Generate reports from Bar Code Based Waste Management System and maintain records periodically and update in the website.

vi. In case of non-availability of wireless weighing machine, the scanner system should have an option of manual entry of data pertaining to weight of scanned bags using conventional weighing machine.

(i) Responsibility of the Occupier w.r.to the Bar Code System :

- 1. Procurement of the Bar Coded Labels or Pre-printed colour coded Bags and containers fulfilling the specification as given under these guidelines from the vendor (s) or the operator of CBWTF on charge basis is the sole responsibility of the occupier;**
- 2. Intimate prescribed authority about the bar coded labels or pre-printed bar coded bags or containers as and when procured.**
- 3. Ensure use of bar coded label or pre-printed bar coded and specified colour coded bag or container for segregation of waste at source of its generation.**
- 4.A representative of HCF to ensure that all the bags and containers are scanned at waste collection point. He shall also collect waste collection receipt generated by waste picker (CBWTF Operator).**

5. In case of Health Care Facility (with less than 30 beds) or clinics or laboratories, concerned HCF /Clinic/Laboratory is not required to pre-scan the bags, the same shall be carried out by waste picker after arrival at site.

6 .In case of Health Care Facility (with more than 30 beds) it is the responsibility of the Occupier to scan the bags containing bio-medical waste.

7. In any State/UT, where CBWTF is not accessible to the HCFs, in such a case, the respective HCF is required to scan the bar coded bags on their own prior to disposal at their captive facilities.

In such case, the bar code waste management system operated by SPCB/PCC / DGAFS shall receive the data.

8. While scanning the bar coded bags (more than 30 bed HCFs), it shall be ensured that the waste handlers shall have adequate PPEs (gloves, goggles, mask, aprons and safety shoes)

9. Time frame for compliance to the Guidelines

As per BMWM Rules, 2016 as amended all the Occupiers and Operator of a CBWTF are required to implement barcode system by 27/03/2019.

10. Actions in case of violation of bar code system

In case of improper operation of the Bar-code Based Software by either occupier /operator of CBWTF,

the Prescribed Authority may take action against the responsible person(s) as per Rule 18 of the BMW Rules, 2016 and further amendments made thereof.

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THANK YOU