Government of West Bengal
Department of Health & Family Welfare
Health Services Branch
Swasthya Bhawan, Block-GN 29
Sector-V, Salt Lake City, Kolkata-700 091

File No: 123(2) – HS (MS)/HF/O/MS/W-09/2020   Dated, Kolkata 26th June, 2020

From: The Joint Secretary, HS Branch
       Department of Health & Family Welfare
       Government of West Bengal

To   : 1. The Director of Health Services, West Bengal, Swasthya Bhawan, Kolkata-91
       2. The Director of Medical Education, West Bengal, Swasthya Bhawan, Kolkata-91

Subject: COVID-19 Biomedical Waste Tracking App

The Central Pollution Control Board, Ministry of Environment, Forest & Climate Change, Parivesh Bhawan, New Delhi has sent a booklet containing User Manual Android Mobile Application & Web Application to be used for COVID-19 Biomedical Waste Tracking App (Copies enclosed).

The booklet contains the following information:

1. General Information
2. Hardware Requirements & User Access
3. How to download the application
4. Waste Generator Registration
5. Waste Tracking System
6. How to sign in
7. Accessing COVID-19 BWM Application through Web

The undersigned is, therefore, directed to request him to use the "COVID-19 Biomedical Waste tracking App" to deal with covid-related matters effectively and speedily.

This is extremely urgent.

Enclosed as stated

26.06.20
JOINT SECRETARY, HS BRANCH

File No: 123(2)/6 – HS (MS)/HF/O/MS/W-09/2020   Dated, Kolkata 26th June, 2020

Copy forwarded for information and necessary action to:
1. The Chief Medical Officer of Health (All Districts)
2. MSVP/Superintendent(All)
3. The Deputy Director Hospital Administration Branch, Swasthya Bhawan.
4. IT Cell for Web Posting
5. Office Copy
6. Guard File

26.06.20
JOINT SECRETARY, HS BRANCH

USER MANUAL
Android Mobile Application
&
Web Application

COVID19BWM

COVID-19 Biomedical Waste Tracking App

Version 1.0

28.05.2020

Central Pollution Control Board
(Ministry of Environment, Forest and Climate Change)

Table of Contents

1.0 General Information

This user manual explains various sections of COVID-19 BWM tracking application for its users that is Waste Generator, Waste Handlers, Common Biomedical Waste Treatment Facilities (CBWTF), State Pollution Control Boards/ Pollution Control Committees, and others. This manual also provides information on downloading and operating the application. This Tracking App is initially developed for android mobiles, however, IoS version is under progress. The manual explains the process of collection of waste together with responsibilities of its stake holders.

1.1 Application Overview

"COVID19BWM" – is a software application for tracking of generation, collection and disposal of COVID-19 Bio-medical waste, generated at various Health Care facilities/Hospitals (HCF), Quarantine Centers, Isolation wards, Testing Labs, Covid-19 Sample Collection Centers and Urban Local Bodies involved in performing the duties of waste collection from Home Quarantine centers / homecare units. This application will enable information exchange between various stake holders involved.

2.0 Hardware Requirements & User Access

This section explains about the hardware and software requirements for accessing COVID-19 BWM application and user access levels.

## 2.1 Hardware and Software Requirements

- Requires a smart phone with Android operating system (OS).
- The minimum Android version should be 4.0.3 and up to avail all the features in the application.

To download and use the functionalities of COVID-19 BWM mobile app, you require an Internet connection in your mobile.

2.2 User Registration & Access

2.2.1 Registration Process

<table>
<tr><td>

Waste Generators
   a. Hospitals and Health Care Facilities (HCF)
   b. Quarantine Centers
   c. Isolation Wards
   d. Captive Treatment Facilities
   e. Urban Local Bodies (ULB)
   f. Sample Testing Centers
   g. Laboratories

</td></tr>
</table>
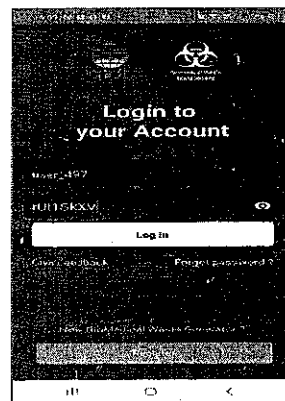
  A. All the Waste Generator entities are required to register through Mobile APP registration process for which ICON is available on Home Page of the Mobile Application.

B. CBWTF: Common Bio Medical Waste Treatment & Disposal Facilities and Waste Handlers (Vehicle Drivers) of CBWTF are being registered by CPCB. For registration, these CBWTF require to submit the format of CBWTF registration available at annexure-1. These formats have to be submitted to CPCB Helpline details (email ids) available at Annexure-3.

C. SPCBs/PCCs: Nodal Officers of State Pollution Control Boards and Pollution Control Committees Board are being registered by CPCB. For registration, these SPCBs/PCCs require to submit the format of SPCBs/PCCs registration at annexure-2. These formats have to be submitted to CPCB Helpline email ids available at Annexure-3.

2.2.2 Procedure to access the Application by its stake holders

APPLICATION DETAILS
- Mobile Application named as **COVID19BWM** (Central Pollution Control Board) can be downloaded in Android Mobile from google play store
- Desktop/Laptop Application can be downloaded from URL https://bwm.cpcbccr.com

APPLICATION USE BY STAKE HOLDERS
- Waste Generator, to use application through Mobile Only

- Health Care Facilities (HCF), to use application through Mobile Only

- Quarantine Center, to use application through Mobile Only

- Urban Local Bodies (ULBs) or Municipal Corporations (MC), to use application through Mobile Only

- CBWTF Operators to use application through Mobile for accepting waste and through Laptop/Desktop to verify the records.

- Waste Handlers (i.e. Drivers of vehicles) to use Mobile Application through Mobile Only

- SPCBs/PCCs to use application through Laptop/Desktop only

- CPCB to use application through Laptop/Desktop only

3.0 How to download the application

COVID-19 BWM App can be downloaded in following ways.
- Google Play Store
- Downloading the application through APK by using COVID-19 BWM web Portal (bwm.cpcbccr.com)

3.1 Google Play Store

Open Play Store application on your mobile by clicking on the Play Store icon as shown in the image below.

Click on the Google Play text at the top and enter the text "COVID19BWM "in the search bar. Click on the COVID19 BWM application icon from the search result.   Now below page will open which asks to install the application. Click on the "INSTALL" button to install the application.
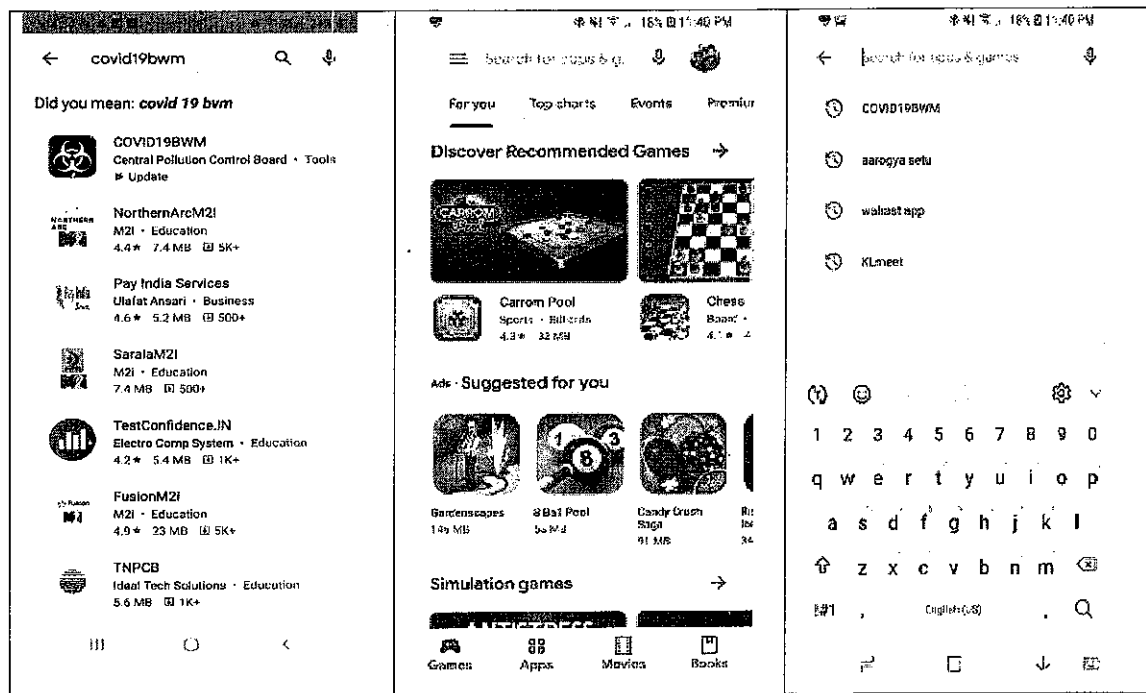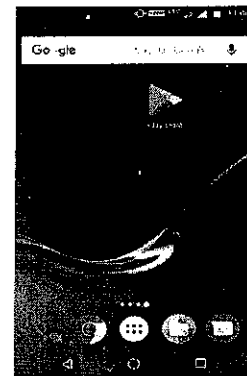
4.0 Waste Generator Registration

COVID-19 biomedical Waste Generators like HCF (Hospital)/Isolation-Ward / Quarantine Centre / Laboratory / Quarantine Homes / ULBs / require to register in the application. While registering they shall ensure that correct state, district is selected. Based on selection available Common Biomedical Waste treatment Facility will appear in drop down.

> Use correct email id & Phone numbers so that OTP & user id generated could be accessed. OTP shall also be available on phone while user id is only available at email id given

> Select correct Common Biomedical waste treatment facility name through which waste disposal is planned.
>
> If correct name does not appear contact Helpline available in Annexure-3.

> Use Register Button after filling all correct information

5.0 Waste Tracking System

Steps involved in waste tracking are as below

GENERATORS
1. Enter Waste Data
2. Handover Waste

Waste Handler
1. Reach each generator location
2. Review and Accept waste Data

CBWTF
1. Review and Accept Waste from Waste Handler
2. Submit Data to SPCB

All the Waste Generators (HCF/ULB), Waste Handlers (drivers) & CBWTF require use of Mobile Application to 1. To Handover waste 2. To accept waste from Waste Generator & 3. To accept waste from Waste Handlers through Mobile Application. This will automatically create entry into the system and all other entities will visualize the data.

6.0 How to Sign in

Waste Generators have to use user id and password generated through registration process shared at email id entered in the registration form by the Mobile Application automatically.
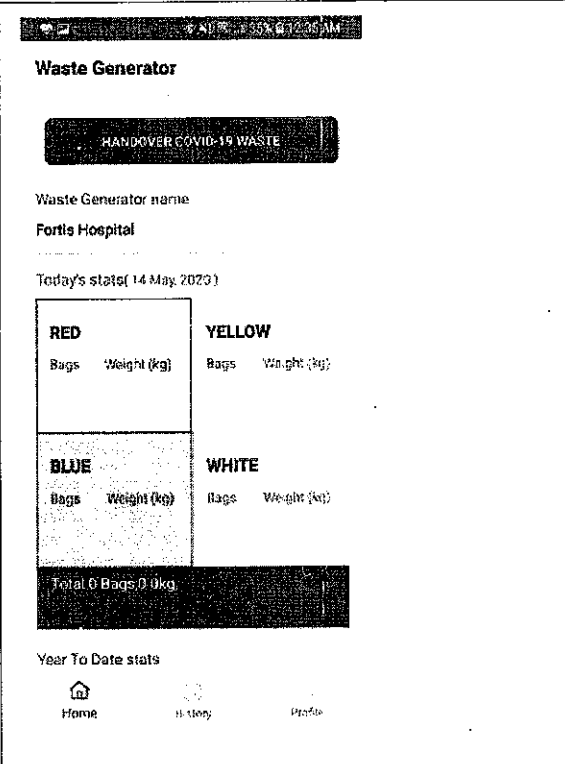
However, CBWTFs, Waste Handlers, SPCBs/PCCs have to use login credentials obtained through CPCB after submission of formats.

If system does not allow and pops up message "User not found" that means user id and password entered is incorrect and you require to carefully read both id and password and enter the letters/umbers as given in the mail received through the system. Sometime there is illusion with l(el) with I(capital eye) or O(O for OK with 0(Zero). Use these combinations and even if fail to get sign in then use "Forgot Password" and regenerate.

Welcome to **CPCB COVID19-BWM!** Greetings ABC You have been successfully registered your facility *Fortis Hospital* with us. Please find the Username and Password attached with the mail. Username: ------------ Password: -------- Thanks and Regards: CPCB COVID19-BWM Team For any Technical assistance kindly contact below Email: aditya.cpcb@nic.in, Mobile: +91 9911328120 Email: Youthika.cpcb@nic.in	Open, the APP and enter given credentials and start the process.

Note: The above credentials is only for the Generator, for Waste Handler and CBWTFs, CPCB will share details separately
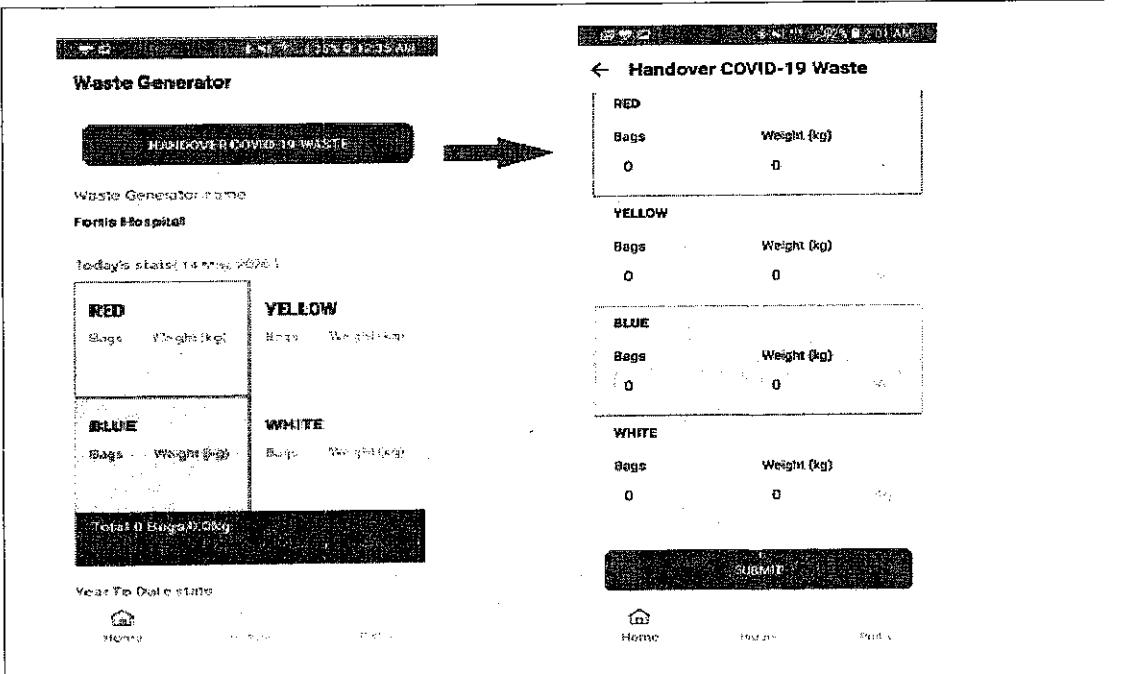
6.1 Waste Generator Login Home screen

Launch the application by clicking on the COVID19BWM icon on your mobile. Login with Generator credentials received over your mail. As soon as application is launched, Home Screen will be displayed, which shows the main features of the application as shown in the image.

Main Dashboard will Consists of

- Option to Handover COVID-19 Waste. Designed for adding waste and initiating the request for waste Pick Up.
- Dashboard Statistics with Today's Data. It Show's current day statistics of waste that has been submitted.
- Year to Date Statistics which shows the Cumulative sum of Total the waste from day 1 to till date.
- History to view all the submitted records.
- Profile screen with personal Information.

6.1.1 Handover Waste (By Generators)

- Navigate to the "Handover Covid-19 Waste" Show at the top and click on it.
- On Clicking on the icon above screen will be opened, this screen is designed to add waste that has been generated till the time of handing over. After entering the Data. Click on "Submit" button given at the bottom.
- A Pop-up will appear on the screen, seeking final approval for submission. Select the appropriate action.
- Finally, successfully submission message will prompt on the screen.

6.1.2 View History (Waste Generator)
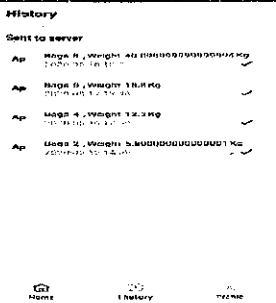
Click on, History icon given at the bottom menu.

The following screen will be appeared.

It shows entire history of records of waste that has been submitted to CPCB for Day1 to till.

You also view on record just by clicking on specific record.

6.1.3 Profile Setup (Waste Generator)

Profile **Ka** Kanniyappen. User Type — Waste Generator User Name — user_523 Belongs To — Apollo hospitals Email — Housekeeping@apollohospitals.com Phone — 9710424077 App Version V1.0 Language — English Change Password Send Feedback Home History Profile	In this Screen, User's personal and necessary information has been available. An Option to change language is also given here made easy to switch almost 11 Regional Languages of India. If any change in profile is required, send details of change required from the registered phone number through whatsapp or email provided in helpline.

6.2 Waste Handler Login (Vehicle Driver)

Launch the application by clicking on the COVID 19 BWM icon on your mobile. Login with Transporter credentials received over your mail. As soon as application is launched, Home Screen will be displayed, which shows the main features of the application as shown in the image.

Main Dashboard will Consists of

- Option to Accept COVID-19 Waste. Designed for Accepting/Adding waste and initiating the request for CBWTF Acceptation.
- Dashboard Statistics with Today's Data. It Show's current day statistics of waste that has been submitted.
- History to view all the submitted records.
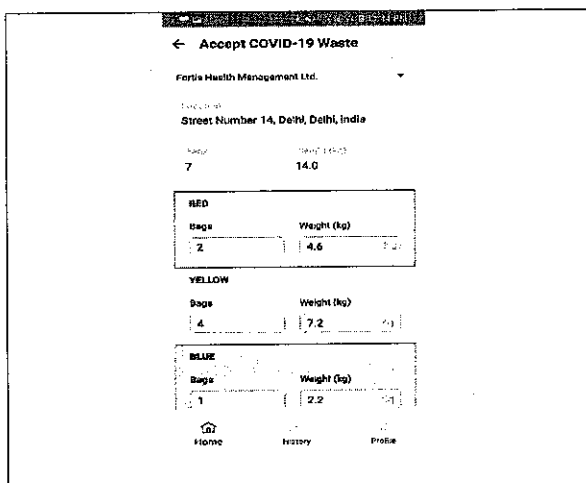- Profile screen with personal Information.

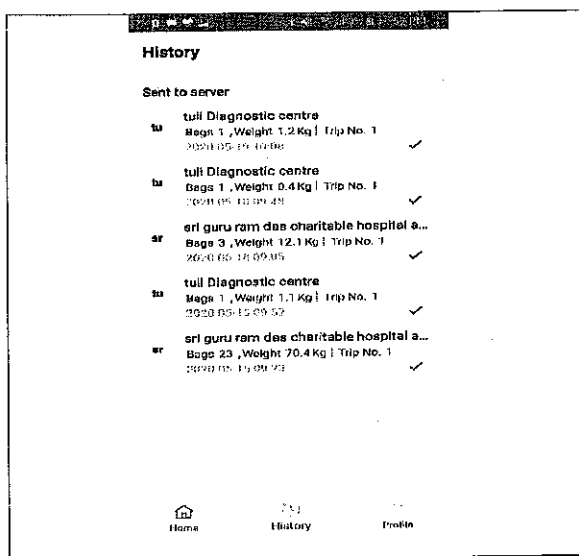## 6.2.1. Accept COVID 19 Waste (Waste Handler / Vehicle Driver)

- Navigate to the "Accept Covid-19 Waste" Show at the top and click on it.
- On Clicking on the icon above screen will be opened, now select generator list from the dropdown, this screen is designed to accept waste that has been generated from a generator. Verify the data and correct if necessary.
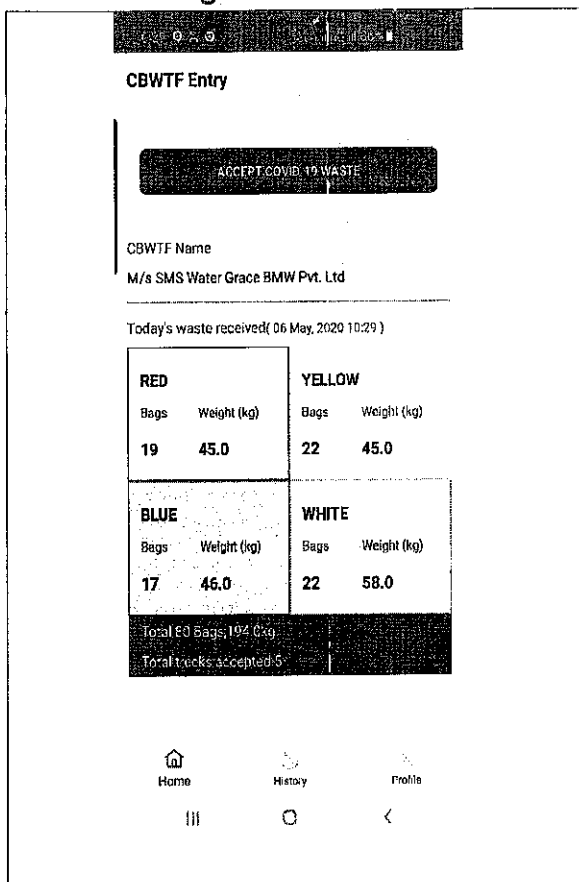
Note: If in the drop down list, name of Waste Generator does not appear, then Waste Generator had selected some other Associated CBWTF and require correction. Immediately take help from CPCB Helpline by submitting details.

	- After entering the Data. Click on "Submit" button given at the bottom. - A Pop-up will appear on the screen, seeking final approval for submission. Select the appropriate action. - Finally, successfully submission message will prompt on the screen.

6.2.2 View History (Waste Handler/Vehicle Driver)

	- Click on, History icon given at the bottom menu. - The following screen will be appeared. - It shows entire history of records of waste that has been Accepted from generator to till date to CPCB for Day1 to till. - You also view on record just by clicking on specific record.

6.3 CBWTF Login

CBWTF Entry

ACCEPT COVID-19 WASTE

CBWTF Name
M/s SMS Water Grace BMW Pvt. Ltd

Today's waste received(06 May, 2020 10:29)

RED		YELLOW	
Bags	Weight (kg)	Bags	Weight (kg)
19	45.0	22	45.0

BLUE		WHITE	
Bags	Weight (kg)	Bags	Weight (kg)
17	46.0	22	58.0

Total 80 Bags;194 Okg
Total trucks accepted:5

Home   History   Profile

Launch the application by clicking on the COVID19BWM icon on your mobile. Login with CBWTF credentials received over your mail.

As soon as application is launched, Home Screen will be displayed, which shows the main features of the application as shown in the image.

Main Dashboard will Consists of

- Option to Accept COVID-19 Waste. Designed for Final Accepting /Adding Waste which are been Accepted from associated Vehicles.
- Dashboard Statistics with Today's Data. It Show's current day statistics of waste that has been submitted.
- History to view all the submitted records.
- Profile screen with personal Information.

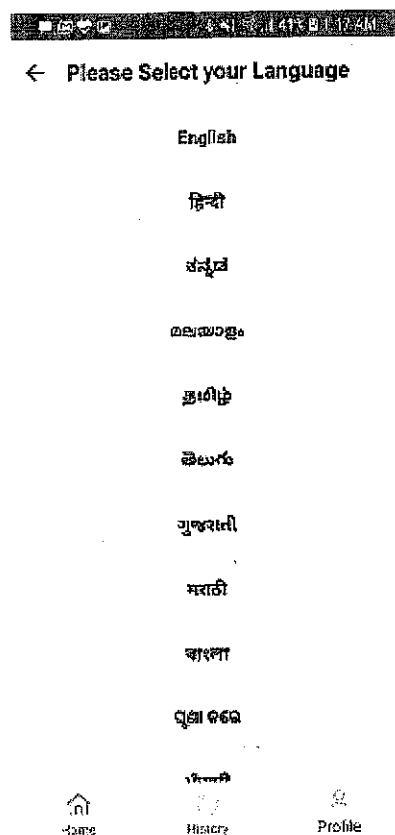## 6.3.1 CBWTF to Accept Waste Transported by trucks through Waste Handlers (Drivers)
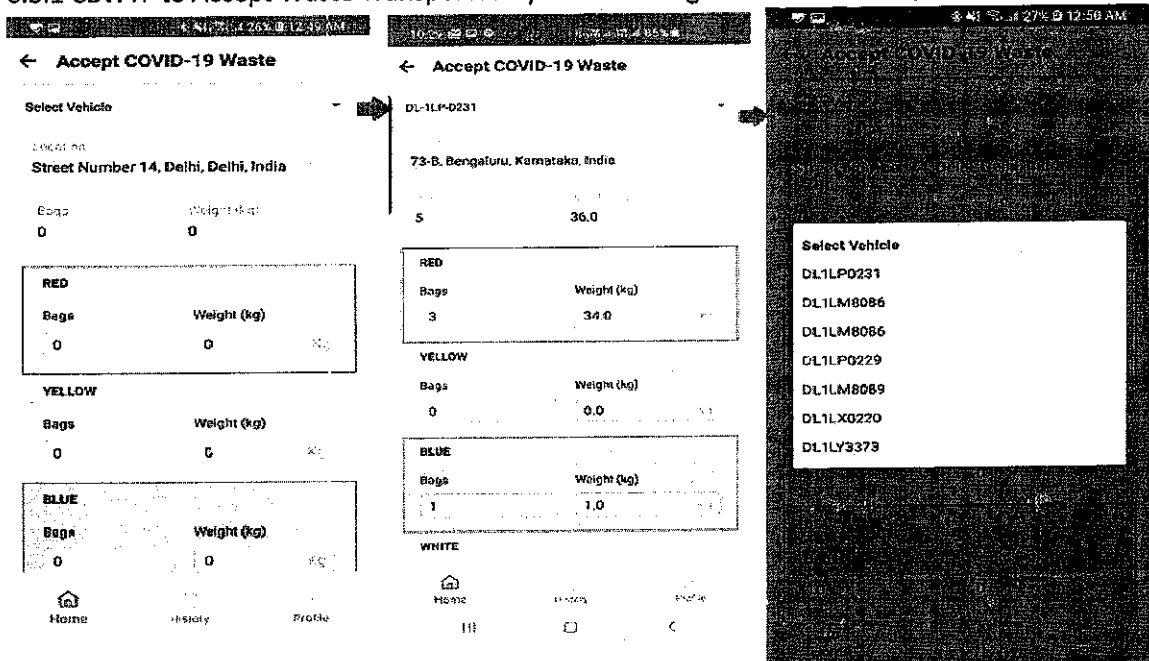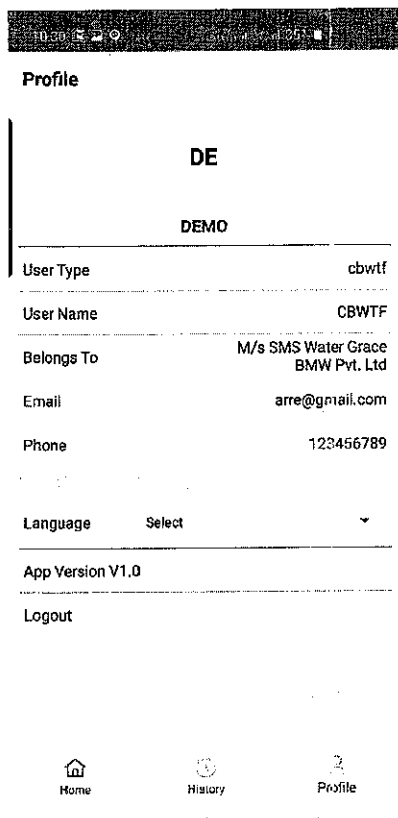

- Navigate to the "Accept Covid-19 Waste" Show at the top and click on it.
- On Clicking on the icon above screen will be opened, this screen is designed to Accept waste that has been carried by the individual truck for the current day. Select Appropriate vehicle from the dropdown given on the screen. Verify the waste and correct if necessary.
- Then Accept the Data. Click on "Submit" button given at the bottom.
- A Pop-up will appear on the screen, seeking final approval for submission. Select the appropriate action.
- Finally, successfully submission message will prompt on the screen.

Note: If any of the Truck Number or Vehicle number associated with CBWTF is not appearing, immediately contact CPCB Help lines.

6.4 Language Settings

Language settings can access from the profile tab given on the Home screen. On click of the Language, the list of available languages is displayed. User can choose the language of his / her choice. The application will then be available in the selected language.

Profile

DE

DEMO

User Type	cbwtf
User Name	CBWTF
Belongs To	M/s SMS Water Grace BMW Pvt. Ltd
Email	arre@gmail.com
Phone	123456789

Language   Select   ▾

App Version V1.0

Logout

⌂ Home   History   Profile

← Please Select your Language

English

हिन्दी

ਪੰਜਾਬੀ

മലയാളം

தமிழ்

తెలుగు

ગુજરાતી

मराठी

বাংলা

ଓଡ଼ିଆ

ਿਹਮਾਬੀ

⌂ Home   History   Profile

7. Accessing COVID-19 BWM Application through Web

A web application has been developed to visualize the data submitted from different stakeholders.

At this stage web access is allowed only to (1) SPCB, and (2). CBWTF. Web portal will look similar for the both the users. The only change is in terms of access to data.

Let's start the accessing the application.

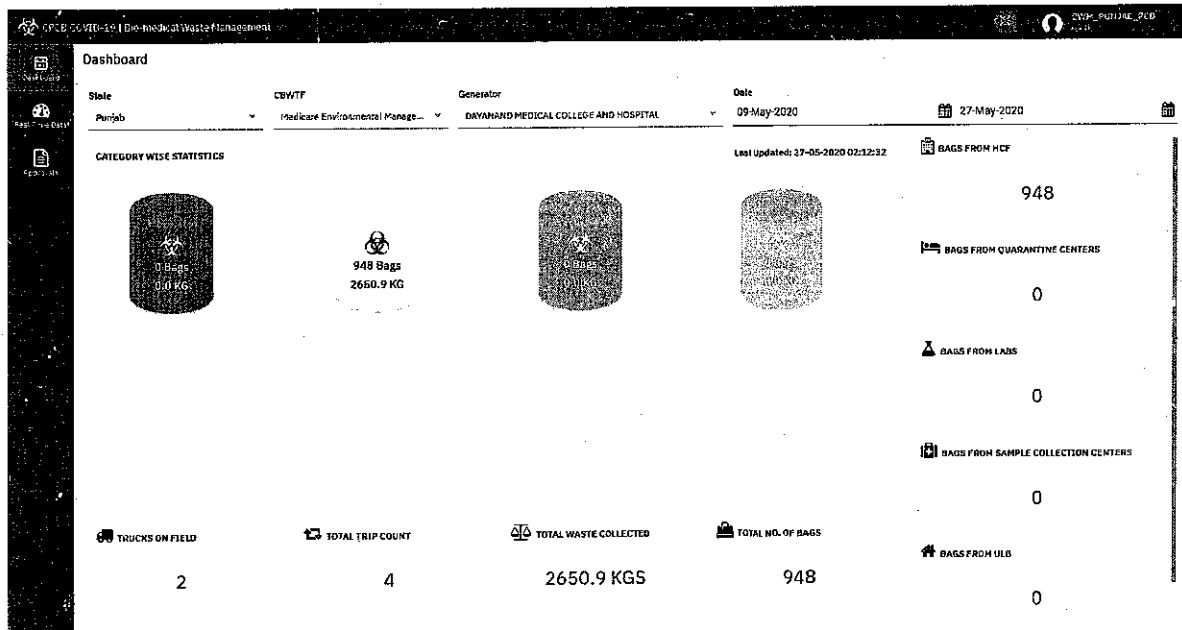## 7.1 Desktop/Laptop based URL Login (SPCB/CBWTF)

- Open any of the browser (google chrome, Mozilla Firefox etc.) on your computer and enter the URL bwm.cpcbccr.com.
- Following Screen will Appear.
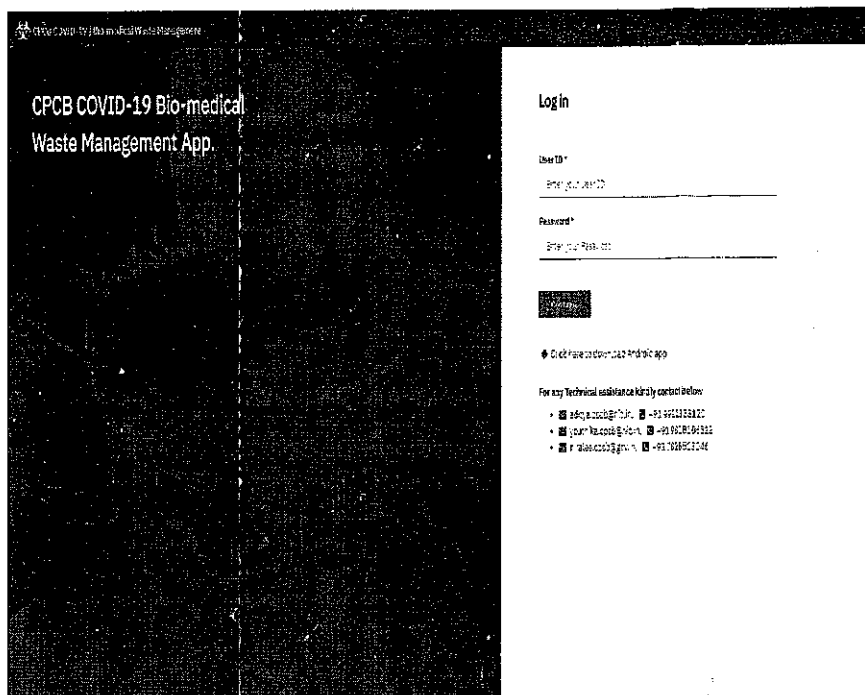
- Enter Username and Password and "Click on" continue.

7.2 Application Web pages

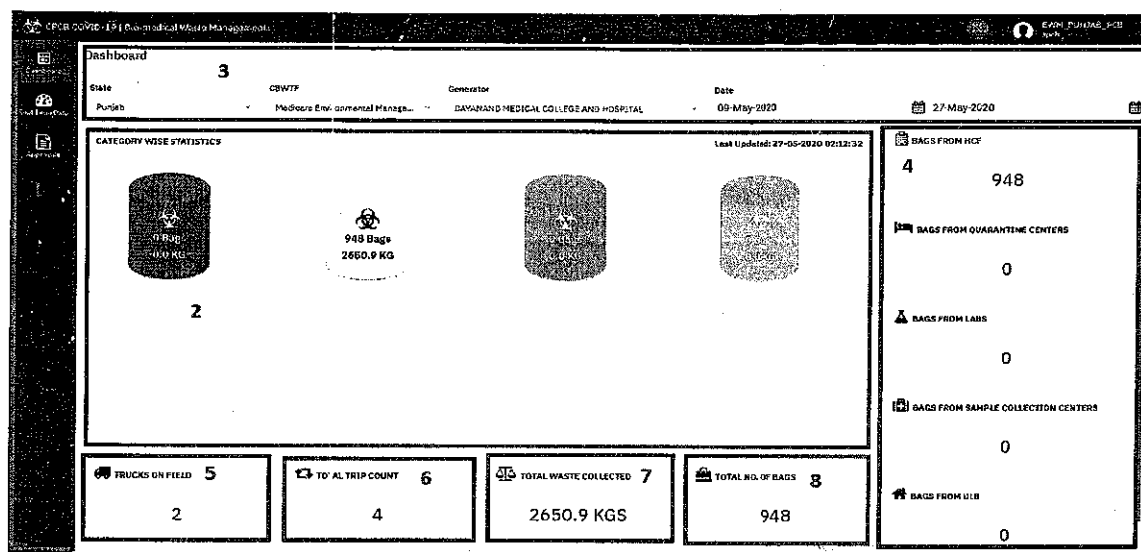- ·On Successful login, you will be landing on to the main dashboards as shown below.

- Navigate to the side menu's given on the web page.
- You can able to see 3- menus available like,
  - Dashboard.
  - Real- Time Data.
  - Approvals.

Each section is discussed in detail in the following sections. .

7.3 Main Dashboard

Main Dashboard will Comprise of following information.

1. Side Menu for switching between different Sections available in the Application.
2. Categories of Statics- Gives the information of the waste that has been collected for different types BWM waste. However, in case of COVID there are mainly two categories waste are generated 1. Yellow 2. Red.
3. Selection bar- For Applying selection as required, like selecting different dates, select combination CBWTF-Generator. Statics will change and appear on the screen w.r.t to the selection applied.
4. Baggage information- This gives information about the total number of bags that has been collected from different types of waste generators.
5. Truck on fields- gives information about the total number of trucks involved in the process of waste collection.
6. Trip info- Provides on trips that are been carried out.
7. Total weight- Gives information total weight that been collected so far from all generators.

8. Total bags- Gives information total bags that are been received.

Note: On Load Application will show you the current day information, select the date to visualizing the data of a day or no of days.
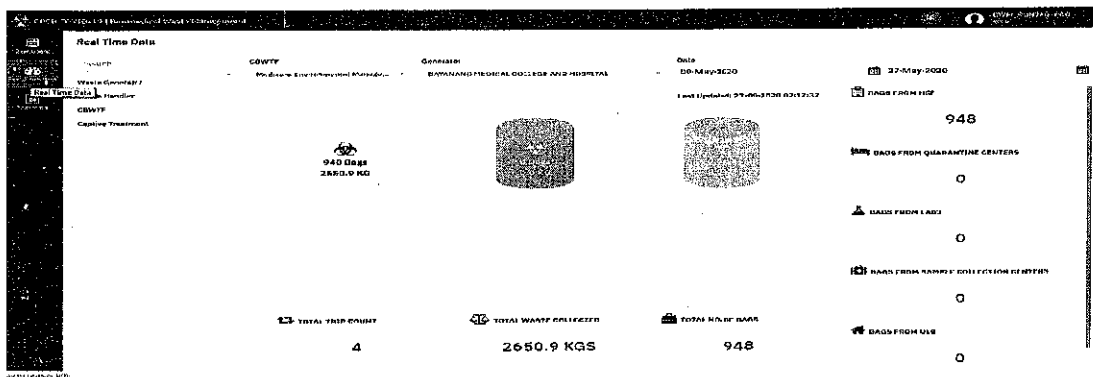
7.4 Real Time COVID-19 Biomedical Waste Statistics

This Section will comprise the real time data of each unit involved in the COVID19 BWM waste submission.

Again, this section is divided into different parts based on the role they own like,

- Generator Page- To Visualize the data real time data of generators. (HCF, Quarantine Centers, Labs, Testing Labs).
- Waste Handler- This page speaks about of Realtime data of trucks that has been accepted form different Health Care Facilities involved in the Process.
- CBWTF- This page is also giving information about Realtime data of CBWTF involved in the process of waste acceptation generated for different generators.
- ULB- It is same as Generators but gives information of local bodies.

Sample Screen Shots:

- At the end of each screen an option called "view" has been given, on click you will explore details about the record selected.
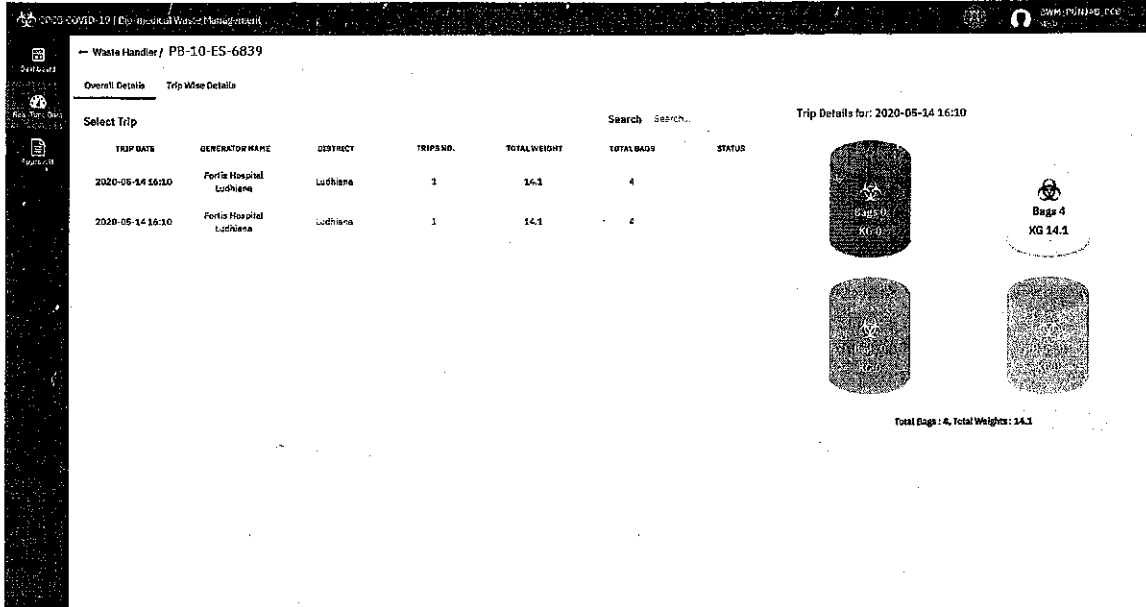
7.5 Manual Data Entry and data Verifications/Approvals by CBWTF & SPCBs

This Section is developed for SPCBs and CBWTF for submitting daily waste information by avoiding hard copy submission. Each SPCB and CBWTF has to select previous day date and submit manual data entries regarding waste managed on daily basis. It is expected that CBWTFs and SPCBs submit their manual data (of previous day) entered in the system everyday before 13:00 hrs.

Sample Screen,
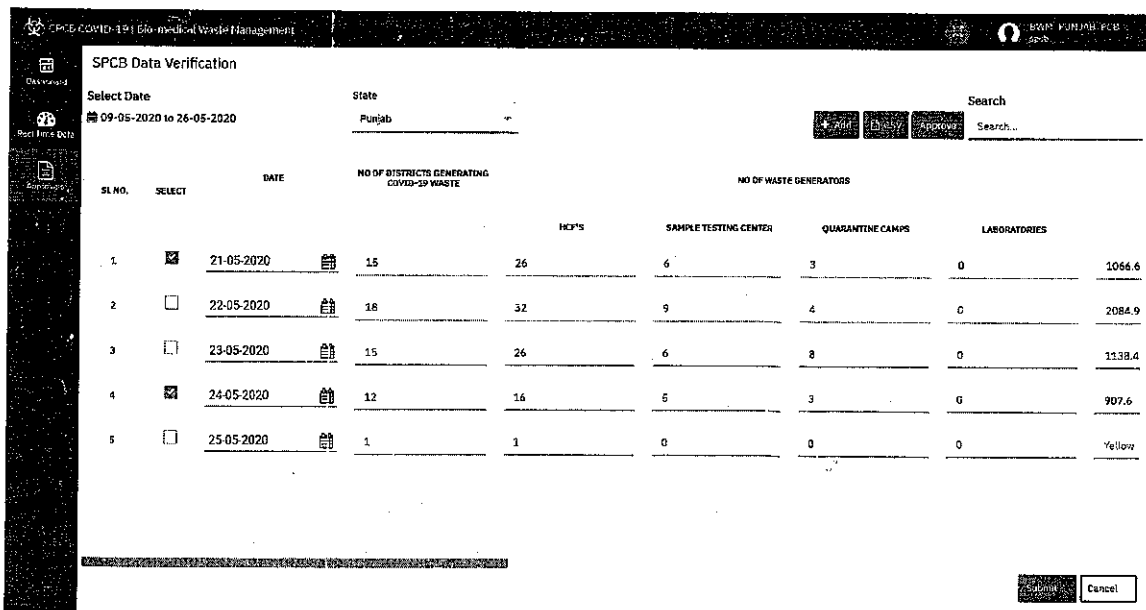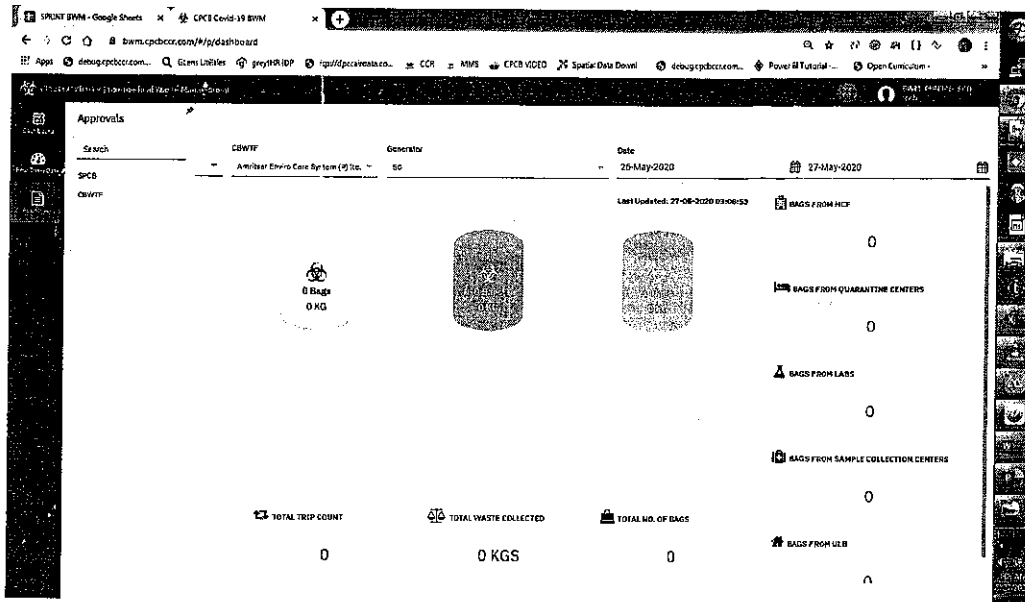
Verification/Approvals can be done after filling the information by selecting the checkbox and clicking on submit and Approve button. Following screen will prompt for comments, CBWTF and SPCBs have to submit comments as per ground reality and approve.
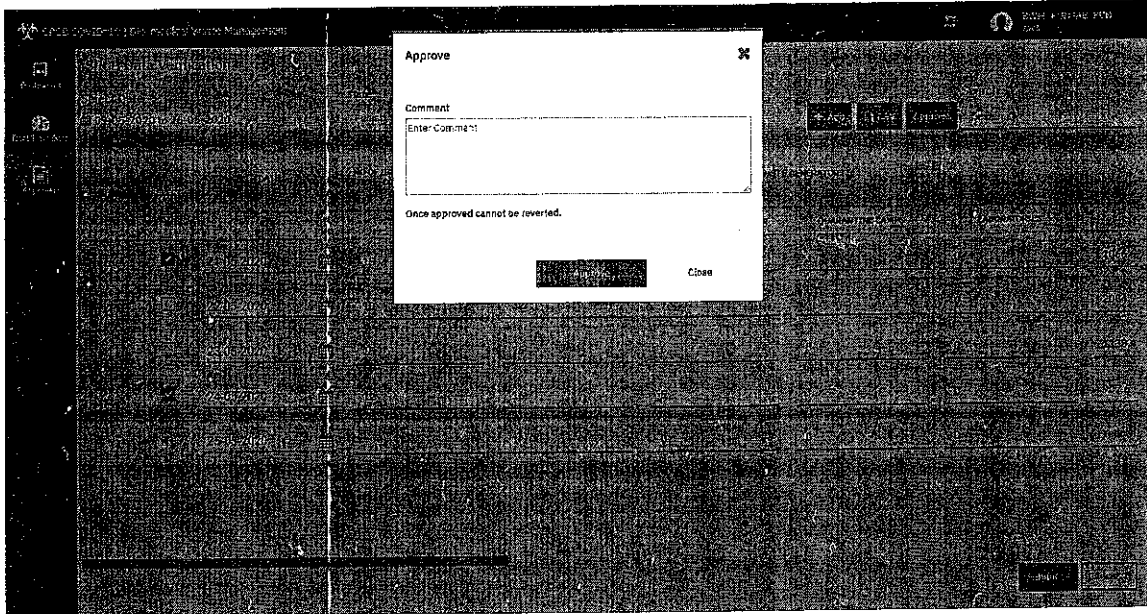
Important Note: Web portal will look similar for both SPCB and CBWTF, only key change here is SPCB can see the data of all CBWTF available, where as CBWTF will see their own data.

***

Annexure-1

Details about CBWTF					
Name of CBWTF	Address of CBWTF	Coordinates	Name of the Operator	Contact number (mobile no.)	email id

Details of vehicles dedicated for collection of COVID-19 waste

S.No	Vehicle number	Name of GPS device installed	API for GPS integration	Number of workers/drivers involved for collection of COVID-19 waste	Name of workers	Contact number	Remarks

(Add new row for additional vehicles)

Details about member HCFs (Hospitals)/Quarantine Centre/Quarantine Home/Homecare/Isolation wards/Captive Incinerators etc.

S.No	Name of COVID-19 biomedical Waste Generator	Type of Generator (Isolation Ward/ Hospital / Quarantine Centre / ULB / Quarantine Camp / Collection Centre / Laboratory)

(Add new row for additional vehicles)

Format for SPCB Integration into COVID 19 Mobile APP

Name of SPCB	
Name of Nodal Designated officer	
Designation of Designated officer	
Phone Number of Officer Designated	
email ID of Officer Designated	

Regional Officer Details (If ROs to be allowed for daily status verification)

	Regional Office 1	Regional Office 2	Regional Office 3	Regional Office 4	Regional Office 5	Regional Office 6	Regional Office 7	... ...
Name of Regional Offices								
Name of Designated Official (DO)								
Phone number of DO								
email id of DO								
Phone Number of Regional Offices								
email id of regional office								

If SPCB wishes to include some of the facilities/quarantine centres/Lab for testing COVID 19, information as below may be provided

S.No	Name of COVID-19 biomedical Waste Generator	Type of Generator (Isolation Ward/ Hospital / Quarantine Centre / ULB / Quarantine Camp / Collection Centre / Laboratory)

(Add new row for additional vehicles)

Helpline

COVID-19 Biomedical Waste Tracking App

Mr Aditya Sharma: 9911328120   : Aditya.cpcb@nic.in

Ms Youthika : 9818106512   : youthika.cpcb@nic.in

Ms Niralee :   7828513046   : Niralee.cpcb@gov.in

Timings : 10:00am to 6:00pm on working Days

***