**GOVERNMENT OF KERALA**

**Abstract**

Local Self Government Department - Standard Operating Procedure (SOP) for Sanitary Waste Management - Approved - Orders issued

**LOCAL SELF GOVERNMENT(WM)DEPARTMENT**

G.O.(Rt)No.120/2025/LSGD Dated,Thiruvananthapuram, 13-01-2025

Read 1 Letter No. 3152/C3/2022/SM dated 09/10/2024 of the Executive Director, Suchitwa Mission

**ORDER**

As per the letter read above Suchitwa Mission has submitted the Standard Operating Procedure (SOP) for Sanitary Waste Management, for approval.

Government have examined the matter in detail and are pleased to approve the Standard Operating Procedure (SOP) for Sanitary Waste Management, as attached herewith, and orders issued accordingly.

(By order of the Governor)
ANUPAMA T V
SPECIAL SECRETARY

Co ordinator, Navakeralam Karma Padhathi 2
Principal Director, Local Self Government Department
Executive Director, Suchitwa Mission
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Signed by
Manish V V
Section Officer
Date: 15-01-2025 13:16:17

# STANDARD OPERATING PROCEDURE (SOP)

# FOR

## SANITARY WASTE MANAGEMENT

**November , 2024**

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## 1. Intent

This Standard Operating Procedure (SOP) defines the general rules and good practices required for the effective management of sanitary waste. It intends to bring in a systematic and scientific management of sanitary waste in the State and is expected to help Stakeholders control and reduce the risks associated with the processing and disposal of sanitary waste. Central Pollution Control Board requirements are to collect, process and dispose of the waste in an environmentally friendly manner, and following this SOP helps comply with the requirements.

## 2. Definitions

**"Sanitary waste"** means wastes comprising of used diapers, sanitary towels or napkins, tampons, condoms, incontinence sheets and any other similar waste.

**"Authorized collection agency"** means an agency authorized by the local bodies to undertake sanitary waste collection.

**"Service providers"** means an agency willing to collect or/& transport or/& process or/& dispose of sanitary waste.

## 3. Introduction

Sanitary waste as per the Solid Waste Management Rules, 2016 means wastes comprising of used diapers, sanitary towels or napkins, tampons, condoms, incontinence sheets and any other similar waste. Sanitary products can be classified into three: **non-compostable disposable products, compostable products and reusable products**. Of this, compostable means compostable under specified testing facilities and reusable means clothes, menstrual cups etc that can be reused.


**Figure: Components of a non-compostable sanitary napkin**

For effective management of sanitary waste, quantification of the same is necessary. The following methodology may be adopted by any local body for the quantification of sanitary waste generated.

## 4. Sanitary Waste Quantification

Major sources of sanitary waste generation in a region are

### a. Palliative care patients

i. Let the no. of palliative care patients using diapers be ‘a’
ii. Assuming an average 3 diapers are used per day per patient
iii. Taking the approximate weight of a wet adult diaper as 350 g
iv. Total waste generated per day **(w1**)= a x 3 x 350 g

### b. Children less than 5 years old using diapers

i. No of children less than 5 years using diapers: ‘b’
ii. Assuming an average 4 diapers are used per day per child
iii. Taking the approximate weight of a wet child diaper as 250 g
iv. Total waste generated per day **(w2)** = b x 4 x 250 g

### c. Adolescent girls and women

i. No of adolescent girls and women using sanitary pads: ‘c’
ii. Assuming an average of 3 pads are used per day per person
iii. Taking the approximate weight of the wet pad as 15 g
iv. Total waste generated per day **(w3)** = c x 3 x 15 g

**d. Other Sanitary waste ( Masks, Condoms, Pet Sanitary wastes, Healthcare waste, Bandages, etc )**

i. Assuming 10% of the total population uses 2 masks daily
ii. Taking per piece mask approximate weight as 4gm
iii. Total weight of mask waste generated per day,

**(m)** =10% population x 2 x 4 g

iv. Assuming that an equal quantity of other wastes (Condoms, pet sanitary wastes, health care wastes, bandages, etc. ) are generated = (**m)**
v. Therefore, total other sanitary waste generated per day **(w4)**= 2 x (m) g

**Total Sanitary waste generation per day = (w1+w2+w3+w4) g**

Once the waste generation for an area is quantified, the collection and transportation plan needs to be worked out. The following methodology may be adopted while designing sanitary waste collection and transportation plans for an area.

## 5. COLLECTION AND TRANSPORTATION PLAN

a. As a first step, the number of households and institutions generating sanitary waste needs to be enumerated in an area.
b. After this, the frequency of generation of sanitary waste from each identified source needs to be ascertained. Usually, used sanitary napkins and tampons are generated for 6 to 7 days each month, while adult and infant diapers are produced daily.
c. Sanitary waste needs to be collected daily from these generators.
d. To facilitate this process, sanitary waste collecting bags (non-chlorinated plastic bags) need to be provided to waste generators, along with storage bins.
e. A designated collection route needs to be established, connecting all waste-generating units.
f. Dedicated vehicles as per this SOP need to be deployed in areas to collect and transport sanitary waste.

g. Once collected, the sanitary waste needs to be transported on the same day to the centralized waste management system of the local body.
h. Subsequently, it will be stored in a facility located near the incinerator and will undergo destruction on the same day.


**Figure: Sanitary Waste Transportation**

### 5.1. Segregated collection of Sanitary Waste

Information, Education, and Communication (IEC) programs need to be organized within the local body to create awareness that sanitary waste must be segregated at source in bags designated for the sanitary waste and handled separately. Segregated sanitary waste (sanitary napkins) should be disposed safely at institutional level through PCB approved devices. For community-level facilities, based on the estimated number of units generating sanitary waste and frequency of waste generation, yellow-coloured non-chlorinated collection bags need to be supplied within the local body to facilitate effective sanitary waste collection.

#### 5.1.1 Supply of collection bags and storage bins :


**Figure: Sanitary waste collection bag & bin**

a) To ensure safe handling and disposal of sanitary waste, the provided collection bags need to be made of **"non-chlorinated plastic."**

b) These bags need to be designed in a way that allows sanitary waste to be disposed of directly into the waste disposal chamber for incineration, without the need to open the bags, thereby minimizing human contact with the waste.

c) It is important to recognize that many sanitary waste generators may face challenges in directly handing over their waste to authorized collection agencies. This could be due to various factors, such as the unavailability of the waste generator during collection times. To address this issue, small waste storage bins need to be provided to sanitary waste-generating units. These storage bins need to be positioned outside the homes and made easily accessible to authorized collectors. This way, workers of authorized collection agencies can efficiently collect the collection bags containing sanitary waste from these storage bins, ensuring that sanitary waste is properly managed without inconvenience to residents.

### 5.2 Usage of Haritha Mithram App or other mobile Applications

a) Sanitary waste has a unique characteristic that it may not be generated on a daily basis (Usually, used sanitary napkins and tampons are generated for 6 to 7 days each month, while adult and infant diapers are produced daily)
b) Therefore, it may not be feasible for the waste collector to physically visit and check all waste-generating units regularly.
c) To address this challenge, a solution involving the use of mobile apps, such as the Haritha Mithram App or other applications can be implemented.
d) These apps can serve as a means of alerting or informing members of the authorized sanitary waste collection agency when sanitary waste is generated at a particular unit.
e) Through this process, the sanitary waste collection team can be notified to visit the unit for collection when needed.
f) In the initial phase, before the dedicated mobile application is developed, this system can be established using WhatsApp groups.
g) WhatsApp can serve as a convenient platform for communication and coordination, allowing members of authorized collection agencies to receive timely alerts and updates about waste generation and collection needs. This approach ensures efficient waste collection without the necessity of physically checking every unit regularly and can be a valuable interim solution until a dedicated mobile app is in place.

### 5.3 Collection of sanitary waste

a) Collection, storage & disposal of sanitary waste is the responsibility of concerned LSGIs as per SWM Rule 2016.
    - Rule (4) (b), states that wrap securely the used sanitary waste like diapers, sanitary pads etc., in the pouches provided by the manufacturers or brand owners of these products or in a suitable wrapping material as instructed by the local authorities and shall place the same in the bin meant for dry waste or non- bio-degradable waste;

 Rule 15(zg) (iv) & (vi), stated that the Local Authority and Nagar Panchayat shall create public awareness through information, education and communication campaign and educate the waste generators on wrapping used sanitary waste securely as and when generated in the pouches provided by the brand owners or a suitable wrapping as prescribed by the local body and place the same in the bin meant for non-biodegradable

waste. The Local Authority and Panchayat/Municipality/corporation shall also educate the public on segregation of sanitary waste at source.

b) LSGIs may deploy authorized agencies to undertake the collection process.
c) Collection may be undertaken through a dedicated team of Harita Karma Sena or through private agencies
d) Private agencies to undertake the collection of sanitary waste can be hired based on the procedure published in G.O No.1227/2022/LSGD dated 16.05.2022 (as amended from time to time)
e) The collection route of sanitary waste based on estimated generation is to be fixed.
f) A dedicated vehicle as described in this SOP needs to be allocated for each route
g) Two persons can be there in a team (a driver and a collecting person)
h) Each team will be responsible for ensuring that their designated route is completely covered within the same day.
i) A distance of 100 kilometers or requirement as per daily need may be fixed as the daily coverage target.
j) The waste collected needs to be transported on the same day to the storage area adjacent to the sanitary waste disposal plant.
k) Proper data should be kept and maintained by the local bodies on the daily quantity of sanitary waste being collected & processed and shall be made available to regulating authorities like Kerala State Pollution Control Board (KSPCB) and Urban Directorate periodically.
l) Receipt should be given by the person undertaking sanitary waste collection at each collection points.

### 5.4 Vehicle used for sanitary waste collection:

a) Dedicated covered vehicles need to be used for sanitary waste collection to avoid the spread of pathogens from the waste and smell nuisance
b) Vehicles need to be provided with GPS tracking device
c) Local bodies may permit covered e-autos or any other covered vehicle suitable to the local terrain conditions as designated collection vehicles.
d) The use of e-autos provides the advantage of easy access to smaller roads, ensuring comprehensive coverage and efficient sanitary waste collection within the local body.

## 6. Sanitary Waste Processing and Disposal

### 6.1 General Guidelines

a. Only PCB-approved devices shall be used for disposing of sanitary waste (sanitary pads) at institutional level and AMC shall be entered into for its proper operation.
b. At an **institutional level**, small incinerators meeting the KSPCB criteria may be promoted and shall be installed close to toilets.
c. At the **community level**, centralized sanitary waste disposal facilities are to be established
d. For community-level sanitary waste disposal facilities, a double chamber-based thermal process is recommended and the same needs to obtain consent from KSPCB.
e. The collected sanitary waste needs to be transported to the centralized facility where it will be tipped into a storage area located near the sanitary waste disposal plant. Skilled workers and the sanitary incinerator operator will then take charge of the waste to ensure its destruction on the same day.
f. Proper quantification of waste should be done before fixing the capacity of the plant.

### 6.2 Specifications of Sanitary Waste Processing and Disposal Facilities

Specifications of various processing and disposal options for managing sanitary waste as per CPCB guidelines and feasible for the State are listed below:

| Option | Specifications/ Pollution Control Norms |
|---|---|

| | |
|---|---|
| **1)Electric incinerators**<br><br>**Type of waste that can be processed**: Bulk amount of napkin wastes<br><br>**Where to Use:** Girls toilets, community toilet complexes, malls, Society Complex etc. | • Ensure complete burning of napkins.<br>• Ensure instant disposal in a scientific and hygienic way with fully automatic way and burn completely.<br>• Burns 150 to 200 napkins/day, can be programmed for cycles/day<br>• Self-disposal by user by directly putting into the incinerator.<br>• Ash generation should not exceed more than 5% per napkin<br>• Ash should be collected in a separate tray and ensure stacked on that tray.<br>• Auto power & thermal cut-off and automatic temperature maintenance should be there for the safety of the user.<br>• Inside refractory lining should have excellent heat retention to avoid thermal loss.<br>• The residence time for gaseous products in the combustion chamber shall be designed to be at least 2 seconds to ensure complete combustion.<br>• The emission from incinerators shall comply with the General Emission Standards mentioned under **Standard for Incineration** section in **SWM Rules, 2016**. |

| | |
|---|---|
| **2) High-temperature incinerators**<br><br>**Type of waste that can be processed**:<br><br>Adult and baby diapers, sanitary napkins, and all types of incinerable domestic bio-medical waste<br><br>**Where to Use:**<br>Community-level sanitary waste disposal facility | • The incinerator shall be designed for capacity more than 50 kg/hr.<br>• The double chamber incinerator shall preferably be designed on "controlled - air" incineration principle, as particulate matter emission is low in such an incinerator. Minimum 100 % excess air shall be used for overall design.<br>• No incinerator shall be allowed to operate unless equipped with Air Pollution Control Device (APCD).<br>• The incineration ash shall be stored in a closed sturdy container in a masonry room to avoid any pilferage.<br>• Finally, the ash shall be disposed of in a secured landfill.<br>• Emission control measures must be followed as per **Schedule II of the Bio-medical Waste Management Rules, 2016**, notified under the Environment (Protection) Act 1986.<br>• The location, structural design etc. of the incinerator shall be as per the guidelines of **Bio-medical Waste Rules, 2016**, published by CPCB under **Guidelines for Bio-medical Waste Incinerator, 2017.**<br>• A skilled person shall be designated to operate and maintain the incinerator. |

**6.3 Institutional-level sanitary waste incinerator**

a. Mini and modular incinerators approved by KSPCB may be promoted at institutional level for the disposal of sanitary napkins.
b. Modular incinerators may be promoted in areas that have no access to common incinerators.

c. Considering low volume of flue gases, the cleaned flue gases after complying with standards shall be vented through stacks above the roof of the building/nearest building or as may be decided by KSPCB.

**Figure- Institutional level sanitary pad incinerator (indicative figure)**

### 6.4 Community-level sanitary waste incinerator

a. All the facilities in twin-chambered incinerators shall be designed to achieve a minimum temperature of 1050 °C + or - $50^0$C in the secondary chamber with a gas residence time of not less than 2 seconds in the secondary chamber. The temperature of the primary chamber shall be a minimum of 800 $^0$C (as per the **CPCB Guidelines for Bio-medical Waste Incinerator, 2017).**
b. There should be facilities for display of temperatures in both chambers.

c. Once the required temperature is attained, there should be a facility for automatic cut off in both the chambers. Once the temperature drops below required level, there should be a facility for automatic restart.

d. Ash generated after the incineration process needs to be transferred to hazardous waste landfill facilities like that operated by KEIL at Ambalamedu-Ernakulam and there should be appropriate temporary storage space for ash earmarked at the sanitary waste processing facility before transporting it to a secured landfill.

e. Wastewater generated at the processing facility should be properly managed using an Effluent Treatment unit and the treated water meeting the standards can be reused for operational purposes.

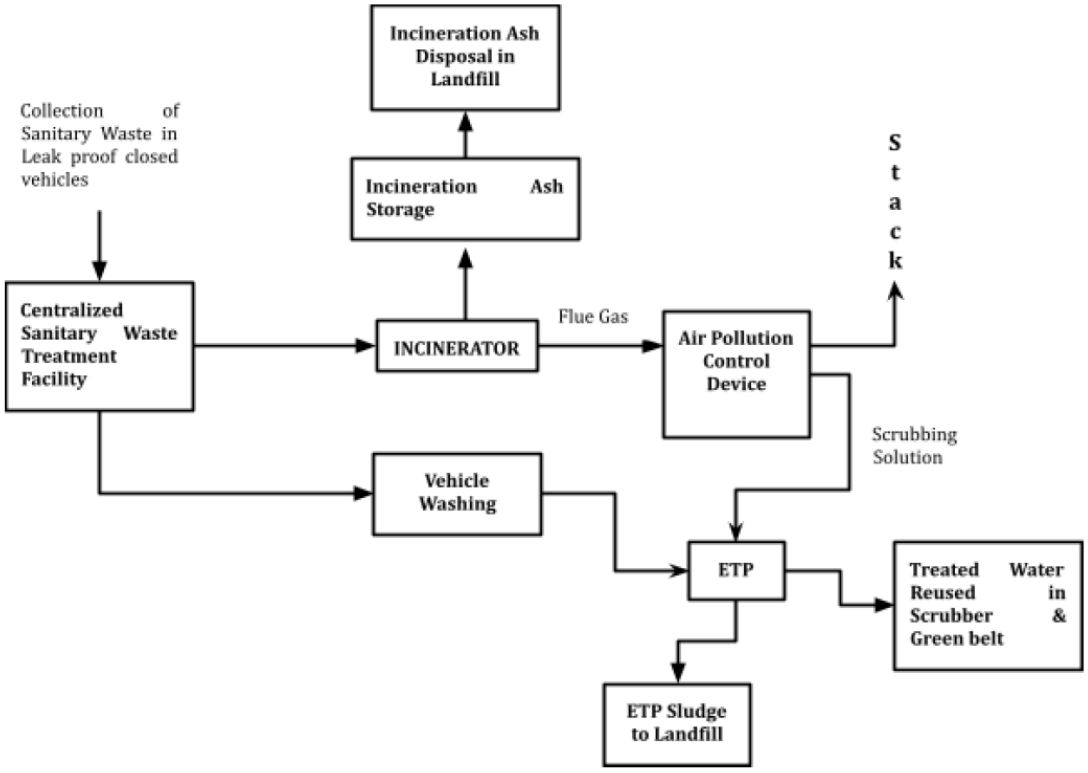


**Figure: Community-level sanitary waste incineration process flow**

### 6.4.1 Community level Sanitary Waste Incinerator Components:

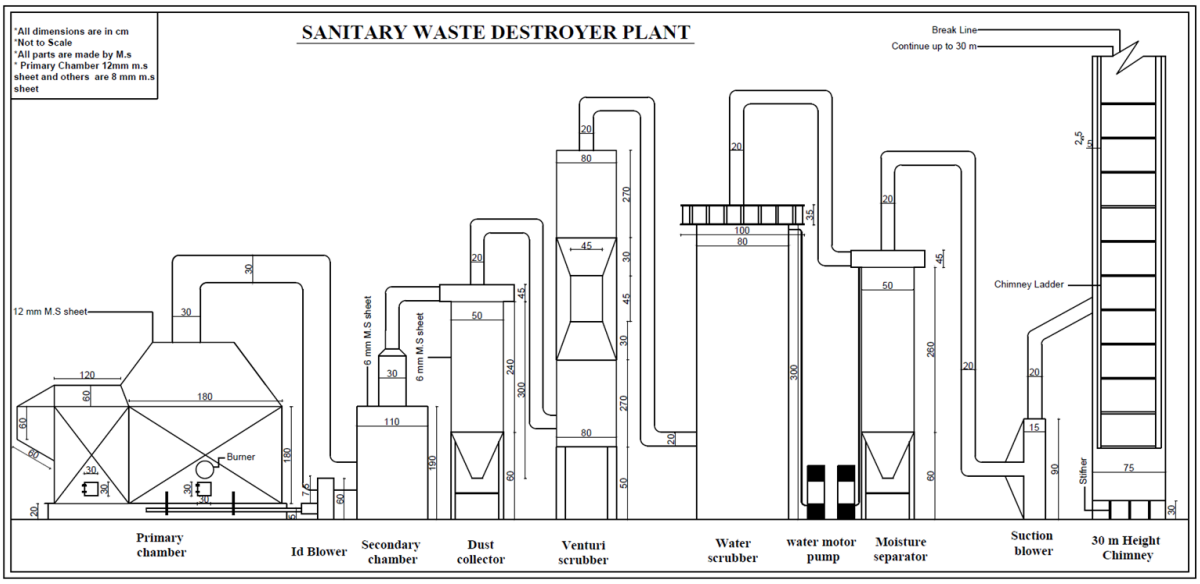


**Figure: Community-level sanitary waste incinerator plant**

a. The components of a community-level sanitary waste incinerator plant are:
   Dumping Pit and Conveyor belt --Primary Burning Chamber-Combustion ID Air Fan-Secondary Burning Chamber --Dust (fly ash) Collector --Venturi Scrubber --Water Scrubber --Moisture Separator --Recirculation Tank --Wet Scrubber Recirculation Pump -Fuel Tank-Burner-Effluent Treatment Plant --Settlement tanks -Control Panel-Air cooling facility-Suction Blower-Ash storage facility -Exhaust Filtered Fumes-Chimney (30 Meter height)- Inspection Ladder - sampling port-Shedding and roofing -Office space-DG back up.
b. There shall be a separate Ash Collection tray for collecting ash from the Primary Chamber.
c. The flue gases are to be cleaned by removal of particulate pollutants and gaseous compounds by passing through various air pollution control devices (APCD) before releasing them into the atmosphere through a stack.

### 6.4.2. Air Pollution Control Devices

Suggested air pollution control devices or treatment scheme for the community level incineration system may comprise of the equipment, in combination, with adequate efficiencies to ensure compliance to the stipulated emission standards as given in schedule-II of the Bio-medical Waste Management Rules, 2016.

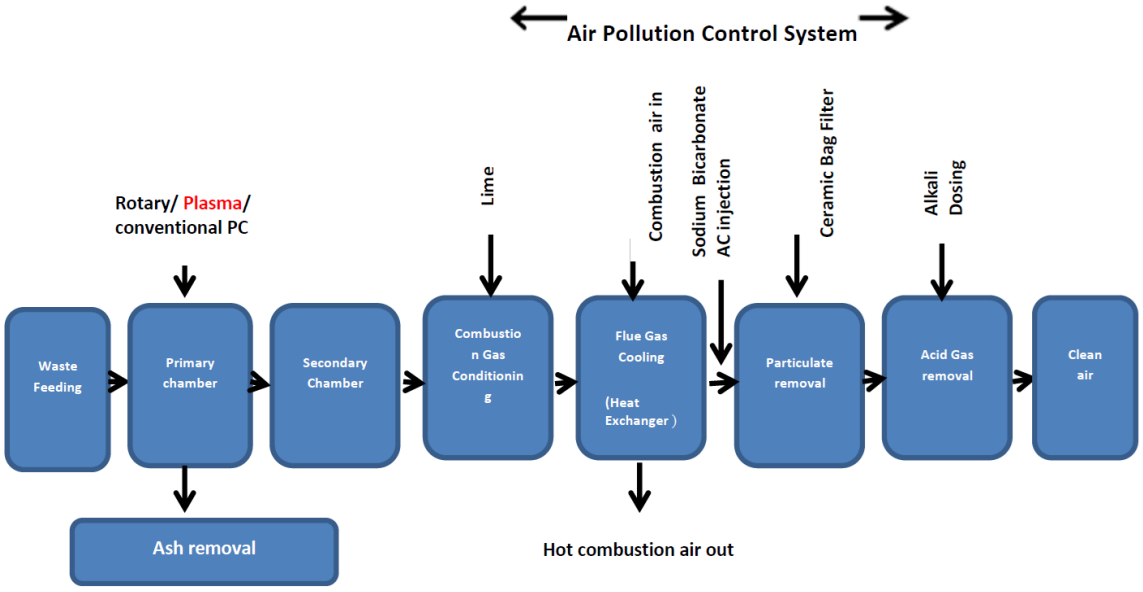


**Figure: Community-level incinerator with dry air pollution control system**
(Source: CPCB)

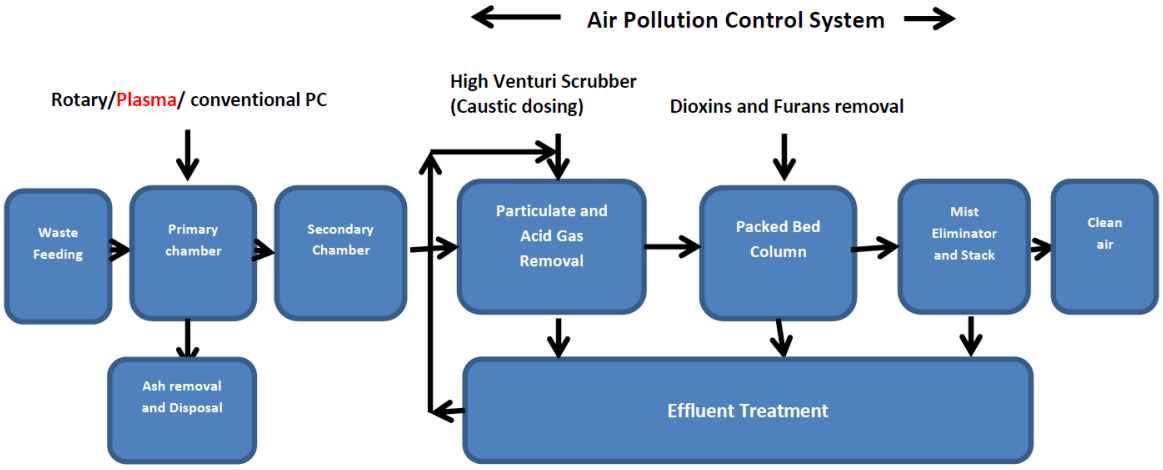


**Figure: Community-level incinerator with wet air pollution control system**
(Source: CPCB)

### 6.4.3 Stack emission monitoring provision

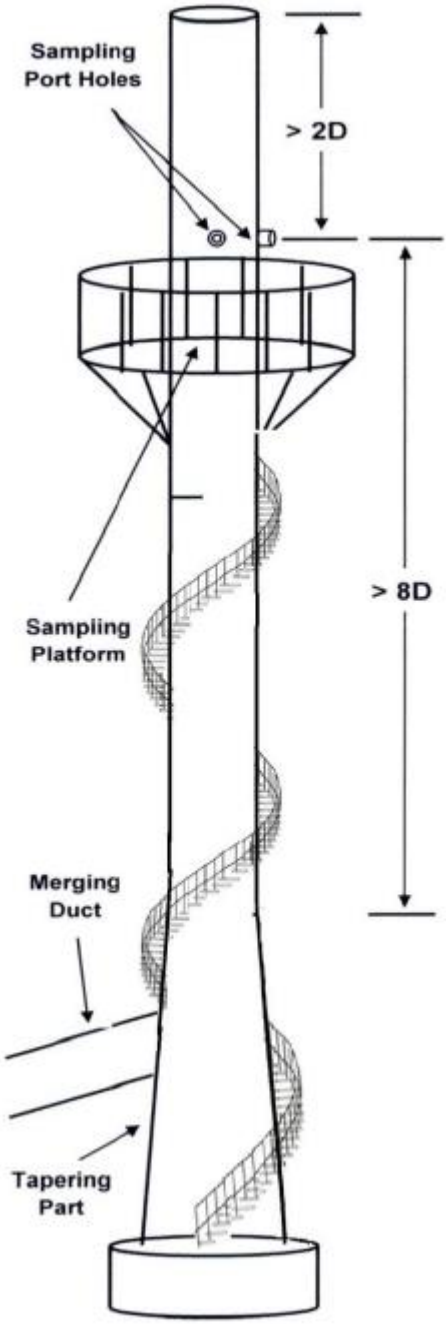


**Figure: Sampling Port for Stack Emission Monitoring**

The sampling location and other monitoring specifications of the porthole, platform ladder (preferably steel scaffolding or spiral stair-case), etc. to collect stack samples from the chimney for monitoring the air pollutants, as and when required shall be as per the CPCBs Guidelines for Stack Emission Monitoring. These facilities shall be maintained safely by the operator. A stack should also be fitted with the aviation lamp at the top.

### 6.4.4. Effluent treatment plant (ETP)

**ETP**: An ETP is an essential component of the incinerator system, designed to treat and filter water used as a scrubbing medium in the venturi and water scrubber processes. The primary purpose of the ETP is to ensure the proper treatment of scrubbing water, removing contaminants and ensuring its safe and efficient reuse in the scrubber systems.

a. **Treatment Capacity**: The ETP shall have the capacity to effectively treat the volume of water generated from the venturi and water scrubber processes. The system should be designed to handle the flow rate associated with these processes to maintain operational efficiency.
b. **Water Filtration**: The ETP shall incorporate suitable filtration mechanisms to remove particulates, contaminants, and pollutants from the water. Filtration should meet or exceed environmental standards and requirements.
c. **Recirculation System**: The treated and filtered water from the ETP should be efficiently recirculated to the venturi and water scrubber systems for reuse in the fumes filtration process. The design should include pumps and piping systems to ensure the proper distribution of treated water.
d. **Monitoring and Control**: The ETP system should be equipped with monitoring and control instruments to assess the quality of treated water, maintain appropriate treatment parameters, and ensure compliance with regulatory standards.
e. **Safety and Compliance**: Safety features such as spill containment measures should be in place to prevent the release of untreated water.
f. **Materials and Construction:** The ETP system should be constructed using materials that are resistant to corrosion and wear, suitable for prolonged contact with water and potentially corrosive elements. The design and construction should adhere to industry standards for water treatment.
g. **Maintenance and Access:** Provisions for easy access and regular maintenance of the ETP should be included in the design to ensure its continuous and reliable operation. Safety measures should be in place to prevent unauthorized access or tampering with the ETP.

### 6.4.5. Incineration ash management

The incineration ash shall be stored in a closed sturdy container in a masonry room to avoid any pilferage. Finally, the ash shall be disposed in a hazardous waste treatment storage and disposal facility.

## 7. Safety Measures

a. There shall be proper usage of **personal protective equipment** like boots , gloves, masks, goggles etc while handling sanitary waste.
b. There shall not be any manual handling during the charging of waste into the primary chamber of the incinerator.
c. The waste shall be charged in bags through an automatic feeding device at the manufacturer's recommended intervals ensuring no direct exposure of furnace atmosphere to the incinerator operator.
d. Required fire safety, occupational health & safety standards should be adhered to ensure a safe working atmosphere.

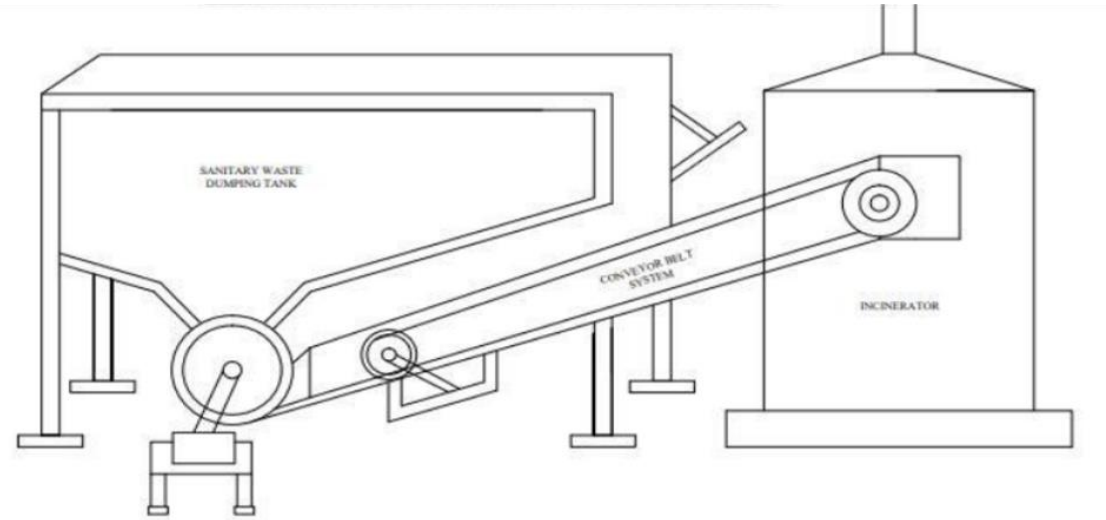


**Figure: Incinerator with conveyor belt system for automating waste feeding**

## 8. Civil Structure Requirements:

a. **Concrete Platform**: The entire assembly of sanitary waste disposal components shall be installed on a RCC platform. The platform shall be raised to a minimum height of 1 metre above the OGL (Original Ground Level).

b. **Roof Covering:** A complete roof structure shall be installed to cover all components of the sanitary waste disposal unit. The roof shall provide shelter and protection from environmental elements, rain, ensuring that the equipment operates effectively.
c. **Rainwater Management:** Adequate provisions shall be in place for collecting and draining rainwater that falls on the premises of the sanitary waste disposal plant. A proper drainage system should be integrated to divert rainwater away from the equipment and ensure it does not interfere with operations.
d. **Side Covering with MS Grill**: The entire system shall be enclosed on its sides with MS (Mild Steel) grill fencing. The grill should be designed to provide security and protection while allowing for proper ventilation and visibility.
e. **Gate Access**: Gate access points shall be integrated into the MS grill enclosure to facilitate entry and exit for authorized personnel and equipment maintenance.

**9. Office Room and other amenities**

**a. Office Room size**: The office room should have a minimum area of 12 square metres (approximately 129 square feet) to accommodate the office setup comfortably.

**b.** Electrical panel boards shall be incorporated in this structure.

**c. Office Setup:** The office should be equipped with a desk, chair, computer, storage facility and other necessary equipment for the sanitary waste disposal plant operator. Adequate lighting and ventilation should be provided for a conducive working environment.

**d. Toilet Facility:** The office room should have access to a toilet facility for the plant operators and workers. The Office room and Toilet block shall be located in close proximity to the Sanitary Waste Destroyer Plant, with a minimum distance of 10 meters from the plant.

**e. Equipment required**

- **Weighing Machine**: A weighing machine with appropriate capacity is required to be provided based on the incoming waste quantity. The weighing machine shall be installed in front of the storage pit.
- **Water Pressure Pump**: A water pressure pump is to be procured for cleaning purposes. The pump will be used for cleaning vehicles, the storage pit, and other components of the sanitary waste disposal.

- **Generator** : A generator is required for the sanitary waste disposal plant to ensure operational efficiency and to provide backup power in case of an electricity outage.

## 10. O&M Protocol

Operation and maintenance of the plant for a minimum term of 5 years shall be the responsibility of the agency installing the plant. After 5 years, approved agencies may be entrusted to carry out the operation and maintenance through tender process.

## 11. Roles and Responsibilities of Stakeholders

| Stakeholder | Roles and Responsibilities |
|---|---|
| Generator | 1. Shall understand the different types of sanitary wastes and hazards and risks from improper management of sanitary waste<br>2. Shall make provision for separate collection and storage of sanitary waste<br>3. Shall not indiscriminately dump/discard or even burn the sanitary waste generated<br>4. Shall strictly comply with the Rules, guidelines, bylaws and instructions issued from time to time by the authorities concerned.<br>5. Shall get involved as stakeholder/generator in the management system that the local body designs for collection, transportation, treatment and disposal.<br>6. Shall promptly pay the user fee fixed by the local body for collection, transportation, treatment and disposal of sanitary waste |

| | |
|---|---|
| LSGIs | 1. Shall make bylaws on sanitary waste management including the modus operandi that it plans to follow in terms of sanitary waste collection, transportation, treatment and disposal. The bylaw shall contain the amount, mode of collection etc of the user fee that shall be levied from the Generators of the waste. It shall also contain the penalties that shall be imposed for indiscriminate dumping, throwing or open burning of sanitary waste.<br>2. The bye-law may be a part of SWM bye-law of the local body<br>3. Shall devise and implement strategies for collection, transportation, treatment and disposal of sanitary waste by engaging directly in the act or by getting the service of service providers to act specifically in the sector.<br>4. Shall have an arrangement for processing and disposal facilities by either of the options listed below<br><br>i by setting up and operating processing and disposal facilities by own<br><br>ii. by setting up processing and disposal facilities and having it operated through service provider selected through a competitive process<br><br>iii by having an agreement with nearby facilities (facilities owned and managed by other LSGIs/private parties) to process and dispose of the sanitary waste generated in the LSGI<br><br>5. Shall ensure that the waste is transported in properly covered registered vehicles provided with GPS tracking device.<br>6. Shall ensure that the workers engaged in the collection, transportation, treatment and disposal of sanitary waste are provided with and they use proper PPEs. It shall also be ensured that they are provided with proper health check-ups at a frequency decided in consultation with a medical officer.<br>7. Shall take appropriate actions to ensure that the sanitary waste is not dumped, thrown or burned in the open and shall take action against potential violators.<br>8. Shall ensure that proper records are maintained regarding the waste collected, transported, processed and disposed.<br>9. The ULBs in association or assistance with Producers shall make necessary arrangements for collection and disposal of sanitary waste and promote Extended Producers Responsibilities (EPR) for providing pouch /wrappers for safe handling of sanitary wastes and decentralized deposit centres. |

| | |
|---|---|
| Suchitwa Mission | 1. Shall provide all technical support to the LSGIs to manage sanitary waste by Providing Guidelines and Standard Operating Procedures<br>2. Shall collect and maintain records of the quantity of sanitary waste generated, transported, processed and disposed by different LSGIs in the state. It shall also maintain data on the performance of different sanitary waste processing and disposal systems.<br>3. Shall constantly strive to bring in improvement in the collection, transportation, processing technology etc for sanitary waste, by studying and understanding the developments in the field in other parts of the country/ world.<br>4. Shall create framework for the IEC Activities and Capacity Building Activities to the Stakeholders invloved |
| Service Providers | 1. Shall participate in the process for selection of service providers by the LSGIs<br>2. Shall enter into an agreement with the LSGI to collect or/& transport or/& process or/& dispose Sanitary waste<br>3. Shall comply with all Rules and regulations within the country/ State and that is stipulated in the bylaw or otherwise by the LSGI<br>4. Shall ensure that all the laborers engaged wear proper uniform and PPEs required for the work.<br>5. Shall provide the workers with good working environment, benefits and health care.<br>6. Shall submit accurate data on the collection and processing to the government and the annual reports to the corresponding departments (LSGD and CPCB) |
| Laborers | 1. Depending on the assignment entrusted, the laborers shall strictly comply with the directions issued by the LSGI and other Govt Departments, irrespective of whether they form part of a collection, transportation, processing or disposal activity of the system.<br>2. Shall take part in all the training imparted by the concerned.<br>3. Shall ensure their personal protection by Wearing Personal Protective Equipments and ensuring the safety of the working place |

## 12. References

1. Solid Waste Management Rules, 2016.

2. Guidelines for Management of Sanitary Waste, CPCB,2018. https://cpcb.nic.in/uploads/MSW/Final_Sanitary_Waste_Guidelines_15.05.2018.pdf

3. Guidelines for Bio-medical Waste Incinerator (Revised Draft), CPCB- 2017

4. Atin Biswas and Shailshree Tewari 2022, Sanitary Waste Management in India: Challenges and Agenda, Centre for Science and Environment, New Delhi

5. Proposal for setting up sanitary waste disposal unit at Shornur Municipality prepared by KSWMP DPMU Thrissur, Palakkad & Malappuram.