TOOLKIT FOR IMPLEMENTATION OF SOLID WASTE MANAGEMENT RULES, 2016

Capacity Building Program on Implementation of Waste Management Rules, 2016

November, 2017
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1.0 Introduction

Solid waste management is one among the important components of Swachh Bharat Mission. It has a direct impact on the health, environment, quality of life of the citizens and on the aesthetics of the urban areas. With a view to improve Solid Waste Management in urban areas in the country, erstwhile Ministry of Environment & Forests (MoEF), Govt. of India had notified Municipal Solid Waste (Management & Handling) Rules, 2000. The time limit up to 31 December, 2003 was prescribed to implement these rules. However, for various reasons best known to municipal authorities, the rules could not be implemented in an appropriate manner by most of the urban local bodies in India. Piece meal approach was adopted by the local authorities. A survey of compliance of MSW Rules, 2000 by class-I cities in India was carried out and it was revealed that even after deadline of three years given under the rules was over, only about 9% waste was treated and less than 1.5% waste was disposed off scientifically or safely. The situation did not improve even after 10 years of the dead line. In year 2013, the Central Pollution Control Board (CPCB) reported that only 68% waste was being collected in the urban areas in the country. Out of total waste generated, about 19% waste was being treated and a very insignificant portion of 1.6% waste was being disposed off in a scientific manner. Looking to the dismal performance of the urban local bodies over a period of 13 years; Ministry of Environment, Forest & Climate Change (MoEFCC), Govt. of India decided to re-visit the provision of rules and come up with a fresh set of comprehensive rules which may address the issues of solid waste management in the country holistically, bridge the gaps noticed and facilitate efficient and expeditious implementation of the rules. The process of framing new rules was initiated in year 2013 and the new rules have been finally notified on 8 April, 2016 in supersession of old rules. The new rules have been named as Solid Waste Management Rules, 2016.

This toolkit has been developed for assisting different stakeholders in the management of solid waste as per Solid Waste Management Rules, 2016.

2.0 Applicability of Rules

The earlier MSW (M&H) Rules, 2000 were applicable to municipal authorities only. These covered 4041 nos. of urban local bodies in the country. The applicability of the new Solid Waste Management Rules, 2016 has now been increased to cover, besides urban local bodies in the country, all urbanised villages having a population of over 5000 and declared as census towns as per national census 2011. This increases the coverage of urban areas from 4041 to 7935 nos.. Besides the 4041 nos. of urban local bodies and 3894 nos. of large villages declared as census towns, the applicability of these rules has been extended to notified areas, notified industrial townships, areas under the control of Indian Railways, airports, airbases, ports and harbours, defence establishments, special economic zones, state and central
government organisations, places of pilgrims, places of religious & historical importance as may be notified by respective state government from time to time and to every domestic, institutional, commercial and any other non residential solid waste generator situated in the areas covered under the rules.

3.0 The Mandates

It is significant to note that the new set of Solid Waste Management (SWM) Rules, 2016 makes every waste generator accountable for the management of solid waste that he/she generates.

SWM Rules, 2016 mandate every waste generator to discharge his obligations specified in the Rule 4 as under:

3.1 Duties of Waste Generators

(1) Every waste generator shall:
   a) segregate and store the waste generated by them in three separate streams namely bio-degradable, non biodegradable and domestic hazardous wastes in suitable bins and handover segregated wastes to authorised waste pickers or waste collectors as per the direction or notification by the local authorities from time to time;
   b) 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;
   c) store separately Construction and Demolition (C&D) waste, as and when generated, in his own premises and shall dispose off as per the Construction and Demolition Waste Management Rules, 2016; and
   d) store horticulture waste and garden waste generated from his premises separately in his own premises and dispose off as per the directions of the local body from time to time.

(2) No waste generator shall throw, burn or burry the solid waste generated by him, on streets, open public spaces outside his premises or in the drain or water bodies.

(3) All waste generators shall pay such user fee for solid waste management, as specified in the bye-laws of the local bodies.

(4) No person shall organise an event or gathering of more than one hundred persons at any unlicensed place without intimating the local body, at least three working days in advance and such person or the organiser of such event shall ensure segregation of waste at source and handing over of segregated waste to waste collector or agency as specified by the local body.
(5) Every street vendor shall keep suitable containers for storage of waste generated during the course of his activity such as food waste, disposable plates, cups, cans, wrappers, coconut shells, leftover food, vegetables, fruits, etc., and shall deposit such waste at waste storage depot or container or vehicle as notified by the local body.

(6) All resident welfare and market associations shall, within one year from the date of notification of these rules and in partnership with the local body ensure segregation of waste at source by the generators as prescribed in these rules, facilitate collection of segregated waste in separate streams, handover recyclable material to either the authorised waste pickers or the authorised recyclers. The bio-degradable waste shall be processed, treated and disposed off through composting or bio-methanation within the premises as far as possible. The residual waste shall be given to the waste collectors or agency as directed by the local body.

(7) All gated communities and institutions with more than 5,000 sqm area shall, within one year from the date of notification of these rules and in partnership with the local body, ensure segregation of waste at source by the generators as prescribed in these rules, facilitate collection of segregated waste in separate streams, handover recyclable material to either the authorised waste pickers or the authorized recyclers. The bio-degradable waste shall be processed, treated and disposed off through composting or bio-methanation within the premises as far as possible. The residual waste shall be given to the waste collectors or agency as directed by the local body.

(8) All hotels and restaurants shall, within one year from the date of notification of these rules and in partnership with the local body ensure segregation of waste at source as prescribed in these rules, facilitate collection of segregated waste in separate streams, handover recyclable material to either the authorised waste pickers or the authorised recyclers. The bio-degradable waste shall be processed, treated and disposed off through composting or bio-methanation within the premises as far as possible. The residual waste shall be given to the waste collectors or agency as directed by the local body.

**It is important to note that new Rules:**

- Prohibit littering, burning & burying of waste.
- Lay emphasis on segregation and storage of bio-degradable and non bio-degradable wastes at source in two separate bins by waste generators and keeping domestic hazardous waste, C&D waste and horticulture waste
separately as and when generated for safe disposal as per the directions of the Urban Local Body (ULB)/separate set of Rules framed by MoEF&CC.

• Gives stress on decentralized processing such as home composting/bio gas generation or community level treatment.
• Directs waste generator to hand over segregated waste to authorised waste pickers or waste collectors.
• Mandates paying user fees to local bodies as may be specified in their bye-laws.

3.2 Measures to be taken by Local Authorities to Ensure Compliance by Waste Generators

The regulatory framework, which requires behavioural change and day to day compliance by the citizens, need to be widely publicized through a well structured awareness campaign. The state agencies and local authorities therefore need to draw up a plan of creating public awareness expeditiously.

Following steps may be taken in this regard:

• The urban development department and/or department in charge of panchayats may form a committee comprising of:
  • Representative of the secretariat department
  • CMA/DMA/CDO
  • Two mayors/two BDOs
  • Two chair persons of municipal authorities/gram panchayats
  • Two municipal commissioners
  • Two executive officers/two secretaries of village panchayat
  • Two officers in charge of SWM in local authorities
  • One NGO
  • Two members of civil society
  • One subject expert

• This committee may deliberate on planning the Information, Education & Communication (IEC) campaign, various modes of communication, the intensity of communication, time frame and budgetary requirements.

• This committee may recommend the IEC activities to be taken up centrally through professional agencies and the activities that may be taken up at city/town/village level and propose allocation of budget for the same.
• The professional agency may be hired by state government/DMA/CMA/CDO within three months and IEC material may be got prepared within two months from date of work order.

• In the mean time, the local level IEC activities may be initiated by the local authorities. On receiving the IEC material from professional agencies, IEC campaign may be intensified and its outcome may be assessed. The campaign may principally focus on educating waste generators (citizens) on:
  • Not to litter waste on the streets, drains, water bodies, open spaces etc
  • Not to burn or bury the waste
  • Segregate wet and dry waste at source and store in two separate bins (educate on bio-degradable and non bio-degradable waste components)
  • Keep domestic hazardous waste, C&D waste, horticulture waste separately as and when generated and deal with them as directed by local authority from time to time
  • How to handle sanitary waste, diapers, as and when generated
  • Practice the concept of Reduce, Reuse, Recycle and Recover (RRRR)
  • Practice home/institutional level composting/bio-gas generation or community level composting/bio-gas generation
  • Handover recyclables to waste pickers or recyclers at source
  • Handover segregated waste to the waste collectors
  • Pay user charges for the sustainability of the project
  • Educating street vendors, resident welfare associations, market associations, gated communities & institutions, hotels & restaurants to discharge their obligation as per Rule 4.

• The impact of IEC campaign may be carefully monitored and assessed at the local level each quarter and corrective measure may be taken to ensure that the citizens adhere to directions contained in Rule ‘4’ and are fully aware that their failure to comply may lead to punishment under the municipal bye-laws.

• The local authority may also create a mechanism to take punitive action against the defaulters and publicize the same to deter others.

• With a view to motivate waste generators on home composting and bio-gas generation, local authority may organise local training programs or pictorial guidelines and declare incentives.
4.0 Duties of Authorities/Stakeholders

Besides making the citizens responsible as above, the Rules have prescribed duties of various concerned authorities/stakeholders as mentioned under:

1. Ministry of Environment, Forest & Climate Change
2. Ministry of Housing & Urban Affairs
3. Ministry of Chemicals and Fertilizers
4. Ministry of Agriculture
5. Ministry of Power
6. Ministry of New and Renewable Energy Sources
7. Secretary, Urban Development of state governments
8. Secretary, Village Panchayats/Rural Development Department of state governments
9. District Magistrate/District Collector/Deputy Commissioner
10. Central Pollution Control Board
11. State Pollution Control Boards or Pollution Control Committees
12. Local (Municipal) Authorities and Village Panchayats of Census Towns & Urban Agglomerations
13. Manufacturers or Brand Owners of Disposable Products/Sanitary Napkins/Diapers
14. Industrial Units located within 100 km from Refuse Derived Fuel/Waste to Energy Plants based on Solid Waste

Rule nos. ‘5’ to ‘18’ of SWM Rules, 2016 clearly lay down the duties of aforesaid authorities/stakeholders.

The duties of various authorities/stakeholders and actions that need to be undertaken to ensure implementations of the SWM Rules, 2016 are elaborated further.

4.1 Ministry of Environment, Forest and Climate Change (MoEFCC)

Duties of Ministry of Environment, Forest and Climate Change (MoEFCC):

(1) The Ministry of Environment, Forest and Climate Change shall be responsible for overall monitoring of the implementation of these rules in the country. It shall
constitute a Central Monitoring Committee under the Chairmanship of Secretary, Ministry of Environment, Forest and Climate Change comprising officer not below the rank of Joint Secretary or Advisor from the following:

1) Ministry of Housing & Urban Affairs
2) Ministry of Rural Development
3) Ministry of Chemicals and Fertilizers
4) Ministry of Agriculture
5) Central Pollution Control Board
6) Three State Pollution Control Boards or Pollution Control Committees by rotation
7) Urban Development Departments of three State Governments by rotation
8) Rural Development Departments from two State Governments by rotation
9) Three Urban Local bodies by rotation
10) Two census towns by rotation
11) FICCI, CII
12) Two subject experts

(2) This Central Monitoring Committee shall meet at least once in a year to monitor and review the implementation of these rules. The Ministry of Environment, Forest and Climate Change may co-opt other experts, if needed. The Committee shall be renewed every three years.

**Actions Recommended for MoEF&CC for implementation of the Rule:**

Ministry of Environment, Forest and Climate Change (MoEF&CC) being overall responsible for monitoring of the implementation of the Rules, MOEF&CC may take up this work immediately by inviting all stakeholders to appraise them of their roles and request them to plan & strategise implementation of the functions entrusted to them. Unless all stakeholders come on board and simultaneously plan for the activities to be undertaken by them, it would not be possible to implement the Rules effectively in the given time frame.

Soon after the first meeting, in initial six months, the monitoring committee may be convened on a bi-monthly basis to take a stock of the situations and ascertain whether all the stakeholders listed in Rules ‘5’ to ‘18’ have initiated the measures entrusted to them followed by half yearly review meeting in first two years to review the implementation of the Rules. Annual review may be taken only thereafter. The MoEF&CC may also consider rolling out the rules in all the states by organising state level sensitization workshops simultaneously as time is running out.
4.2 Ministry of Housing & Urban Affairs (MoHUA)

Duties of Ministry of Housing & Urban Affairs (MoHUA):

(1) The Ministry of Housing & Urban Affairs (MoHUA) shall coordinate with State Governments and Union territory Administrations to:
   (a) take periodic review of the measures taken by the states and local bodies for improving solid waste management practices and execution of solid waste management projects funded by the Ministry and external agencies at least once in a year and give advice on taking corrective measures;
   (b) formulate national policy and strategy on solid waste management including policy on waste to energy in consultation with stakeholders within six months from the date of notification of these rules;
   (c) facilitate States and Union Territories in formulation of state policy and strategy on solid management based on national solid waste management policy and national urban sanitation policy;
   (d) promote research and development in solid waste management sector and disseminate information to States and local bodies;
   (e) undertake training and capacity building of local bodies and other stakeholders; and
   (f) provide technical guidelines and project finance to states, Union territories and local bodies on solid waste management to facilitate meeting timelines and standards.

Actions recommended on priority for implementation of the Rule:

1. MoHUA may immediately appoint a team of consultants/experts to prepare draft national policy and strategy on Solid Waste Management including policy on waste to energy within three months and organise stakeholder consultations inclusive of a few state representatives and experts to critically look at the practicability of policy & strategy prepared by the ministry before notifying the policy and strategy.

2. Issue suitable guidelines to the States/UTs to prepare similar policy and strategy for their respective states. This need to be done in a time bound manner as the timeline given for this activity is already over.

3. MoHUA may organise state level or regional level training and capacity building programs for sensitising local authorities and stakeholders on various provisions of SWM Rules, 2016 and steps that need to be taken by
various stakeholders for the implementations of the Rules by drawing experts from central agencies, institutions and various states. This may be planned on a war footing in consultation with state governments. While organising such programs, all logistics may be provided by state agencies in their respective states using SBM funds, the MoHUA may take the responsibility to provide faculty for imparting training.

4. MoHUA may immediately identify at least three to four institutions in the country and entrust them the task of research and development in the following areas of SWM.
   b. Identification of suitable tools, equipment, and vehicles for storage at source, primary collection, secondary storage and transportation of waste in various levels of cities and towns.
   c. Manpower and machinery requirements for various activities in SWM sector.

5. MoHUA may create a mechanism for funding the SWM projects in various states and review the performance of local authorities and agencies through identified experts/institutions on a quarterly basis in the first year followed by half yearly review in subsequent years.

4.3 Ministry of Chemicals and Fertilizers (MoC&F)

<table>
<thead>
<tr>
<th>Duties of Department of Fertilisers, Ministry of Chemicals and Fertilisers:</th>
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</thead>
<tbody>
<tr>
<td>(1) The Department of Fertilisers through appropriate mechanisms shall:</td>
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<tr>
<td>(a) provide market development assistance on city compost; and</td>
</tr>
<tr>
<td>(b) ensure promotion of co-marketing of compost with chemical fertilisers in the ratio of 3 to 4 bags : 6 to 7 bags by the fertiliser companies to the extent compost is made available for marketing to the companies.</td>
</tr>
</tbody>
</table>

*Actions Recommended for implementation of the Rule:*

The success of composting industry will depend heavily on this support from this ministry to the local bodies and to waste processing industry in the country.
The department may therefore take the following measures expeditiously:

1. The Department of Fertilizers in the Ministry of Chemicals and Fertilizers may create a database of compost plants set up in all urban centres in India in consultation with Central Pollution Control Board and respective state governments.

2. Create a state wise mechanism to ascertain whether the compost meets the quality standards laid down and the quantity of compost produced each day/month.

3. Create a mechanism for its marketing within the state to the extent possible through their fertilizer outlets along with chemical fertilizers in the proportion mentioned in the Rules.

4. Optimally utilise the market development assistance fund in propagating the use of compost with chemical fertilizer to protect soil health and transport of compost from the producers to the consumer end.

4.4 Ministry of Agriculture & Farmers Welfare (MoAFW)

**Duties of Ministry of Agriculture & Farmers Welfare, Government of India:**

The Ministry of Agriculture & Farmers Welfare, through appropriate mechanisms, shall:

(a) provide flexibility in Fertiliser Control Order for manufacturing and sale of compost;

(b) propagate utilisation of compost on farm land;

(c) set up laboratories to test quality of compost produced by local authorities or their authorised agencies; and

(d) issue suitable guidelines for maintaining the quality of compost and ratio of use of compost visa-a-vis chemical fertilizers while applying compost to farmland.

**Actions Recommended for implementation of the Rules:**

1. The Ministry of Agriculture & Farmers Welfare need to take a very pro-active measure in educating the farmers on the benefits of use of city compost in their farm land to protect soil health from the adverse impacts of using
chemical fertilizer, improve porosity of soil and moisture retaining capacity and provide desired nutrients to the plants.

2. The use of compost may be integrated in the Ministry’s ongoing campaigns for increasing agriculture production.

3. The ministry may critically look at the ground reality of the quality of compost that can be produced from urban bio-degradable waste and the standard laid down for city compost in the fertilizer control order and consider providing flexibility in acceptance of compost for application on farm land without compromising on the critical aspects.

4. With a view to facilitate local authorities and operators of the composting facilities to test the quality of compost they produce from time to time, the ministry may set up or facilitate private sector setting up laboratories in various parts of the states on a chargeable basis to make them self sustainable and create a mechanism of certifying whether the compost meets the quality as per the fertilizer control order.

5. The ministry may guide the manufactures on adopting processes that may help in maintaining quality of compost and its marketability.

6. The ministry may issue guidelines on the use of compost along with chemical fertilizers in suitable proportions for various types of agricultural products.

4.5 Ministry of Power (MoP)

Duties of the Ministry of Power:

The Ministry of Power through appropriate mechanisms shall:
(a) decide tariff or charges for the power generated from the waste to energy plants based on solid waste.
(b) compulsory purchase power generated from such waste to energy plants by distribution company.

Actions Recommended for implementation of the Rule:

1. The Ministry of Power, in co-ordination with Central Pollution Control Board, may create a data base of existing waste to energy plants, the new
waste to energy plants coming up in the country and their potential of generating power from waste.

2. The ministry may look at the recent report of the task force on waste to energy set up by the planning commission (12th May 2014) and assess the future potential of waste to energy projects over a period of next 20-25 years from the quality & quantity of non bio-degradable combustible waste that are allowed to be utilised for power generation.

3. The ministry may determine the tariff or charges for the purchase of power generated from waste to energy plants by critically looking at the cost of generating power at these plants and the fair rate that need to be paid for the sustainability of such plants in the country.

4. The ministry may mandate the power distribution companies to purchase the power from waste to energy plants at the rates prescribed.

4.6 Ministry of New and Renewable Energy (MNRE)

**Duties of Ministry of New and Renewable Energy (MNRE):**

The Ministry of New and Renewable Energy through appropriate mechanisms shall:

(a) facilitate infrastructure creation for ‘waste to energy’ plants; and

(b) provide appropriate subsidy or incentives for such ‘waste to energy’ plants.

**Actions Recommended for implementation of the Rules:**

1. MNRE has a very important role to play in the promotion of waste to energy plants. The ministry needs to carefully look at the SWM Rules, 2016 and evaluate the potential of generating power from the non recyclable combustible fraction of waste and give suitable advice to local authorities and investors about the suitability of urban residual combustible waste for generation of power at a reasonable cost.

2. Ministry may advise the states and local authorities on appropriate technologies that could be adopted for power generation from solid waste.
3. The ministry may assess the capital and O&M cost of ‘waste to energy’ plants and workout the viability gap and come up with a incentive scheme for promoting ‘waste to energy’ plants in the country.

4. Ministry may facilitate creation of necessary infrastructure for facilitating construction of ‘waste to energy’ plants.

4.7 Secretary, Urban Development (States & UTs)

**Duties of the Secretary—in-charge, Urban Development in the States and Union Territories (UTs):**

(1) The Secretary, Urban Development Department in the State or Union Territory through the Commissioner or Director of Municipal Administration or Director of local bodies shall,—

(a) prepare a state policy and solid waste management strategy for the state or the union territory in consultation with stakeholders including representative of waste pickers, self help group and similar groups working in the field of waste management consistent with these rules, national policy on solid waste management and national urban sanitation policy of the ministry of urban development, in a period not later than one year from the date of notification of these rules;

(b) while preparing State policy and strategy on solid waste management, lay emphasis on waste reduction, reuse, recycling, recovery and optimum utilisation of various components of solid waste to ensure minimisation of waste going to the landfill and minimise impact of solid waste on human health and environment;

(c) state policies and strategies should acknowledge the primary role played by the informal sector of waste pickers, waste collectors and recycling industry in reducing waste and provide broad guidelines regarding integration of waste picker or informal waste collectors in the waste management system.

(d) ensure implementation of provisions of these rules by all local authorities;

(e) direct the town planning department of the State to ensure that master plan of every city in the State or Union territory provisions for setting up of solid waste processing and disposal facilities except for the cities who are members of common waste processing facility or regional sanitary landfill for a group of cities; and

(f) ensure identification and allocation of suitable land to the local bodies within one year for setting up of processing and disposal facilities for solid wastes and incorporate them in the master plans (land use plan) of the State or as the case
may be, cities through metropolitan and district planning committees or town and country planning department;

(h) direct the town planning department of the State and local bodies to ensure that a separate space for segregation, storage, decentralised processing of solid waste is demarcated in the development plan for group housing or commercial, institutional or any other non-residential complex exceeding 200 dwelling or having a plot area exceeding 5,000 square meters;

(i) direct the developers of Special Economic Zone, Industrial Estate, Industrial Park to earmark at least five percent of the total area of the plot or minimum five plots or sheds for recovery and recycling facility.

(j) facilitate establishment of common regional sanitary land fill for a group of cities and towns falling within a distance of 50 km (or more) from the regional facility on a cost sharing basis and ensure professional management of such sanitary landfills;

(k) arrange for capacity building of local bodies in managing solid waste, segregation and transportation or processing of such waste at source;

(l) notify buffer zone for the solid waste processing and disposal facilities of more than five tons per day in consultation with the State Pollution Control Board; and

(m) start a scheme on registration of waste pickers and waste dealers.

**Actions Recommended for Implementation of the Rules:**

The Secretary, Urban Development Department (UDD) of states/UTs has a very critical role to play at the state level to facilitate and ensure the implementation of the Rules by the urban local authorities in the state. The most critical activities that secretary, UDD need to take up simultaneously are:

- Prepare State Policy and Strategy on SWM in line national policy and strategy that may be prepared by MoHUA laying emphasis on waste Reduce, Reuse, Recycle & Recovery (RRRR) and integrating informal sector in waste management systems.

- Ensure implementation of SWM Rules by all local authorities

- Identification and allocation of land for processing and disposal of waste

- Facilitate establishment of common landfills for cluster of cities to achieve economy of scale and facilitate professional management of landfills.

- Notify buffer zone/no development zone around processing and disposal facilities
• Arrange training and capacity building programmes

The Secretary, UDD of state governments may initiate the following steps:

1. Secretary UDD may appraise all urban local bodies in the state about the provisions of SWM Rules 2016, the timelines to be achieved and motivate them to take appropriate measures towards implementations of the Rules. He may lay stress on ensuring:
   a. Community participation and waste Reduce, Reuse, Recycle & Recovery (RRRR)
   b. Segregation of wet and dry waste and storage of waste at source in two separate bins, involvement of waste pickers and recyclers in reducing waste
   c. Door to door collection
   d. Decentralised processing and minimising collection and transport cost and waste going to landfills
   e. Setting up of regional common landfills for disposal of residual waste
   f. Pay user charges for the sustainability of the system.

2. Secretary UDD may simultaneously assign the task to experts/agencies to prepare state policy and strategy on SWM before December, 2017. This document may be fine tuned on receiving national policy and strategy document from MOUD and then circulated to local bodies in the state within the time limit of one year prescribed in the rules.

3. Secretary UDD may assess the requirement of land for processing and disposal of waste by various sizes of cities & towns in the state adopting the yardsticks given below and ascertain the availability of suitable land with local bodies.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Cluster size population</th>
<th>Land requirement for regional landfill per 1 lakh population</th>
<th>Land requirement for processing of waste per 1 lakh population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 to 5 lakh</td>
<td>15 Acres</td>
<td>1 acre</td>
</tr>
<tr>
<td>2</td>
<td>5 to 10 lakh</td>
<td>12 Acres</td>
<td>1 acre</td>
</tr>
<tr>
<td>3</td>
<td>10 lakh +</td>
<td>8 Acres</td>
<td>1 acre</td>
</tr>
</tbody>
</table>
4. Advise the district collectors to allocate suitable land to the local authorities who do not have suitable land/adequate land for setting up processing and disposal facility in a given time frame.

5. With a view to minimize requirement of land for sanitary landfills, economise in O&M cost of landfills, facilitate professional management of landfills and reduce the scope of public outcry against setting up city wise landfills very close to habitation, Secretary UDD may facilitate establishment of regional sanitary landfills in the state for cluster of cities which are close to each other.

6. He may identify large parcels of waste land away from habitation which can meet 20-25 years’ requirements of land for the cluster of the cities falling within a radius of 50 km from the land identified and develop a mechanism of its professional management on a cost sharing basis. Satellite imagery may be used for identifying large parcels of land in the state which could be allocated for setting up regional facilities.

7. The secretary UDD may with the assistance of DMA or CMA or DM determine buffer zone for restricting development around the processing and disposal sites. A minimum distance as advised by CPHEEO, MOHUA may be notified from the boundary of the land required for processing and disposal of waste prohibiting development in that area. As such this buffer zone may be included within the land to be allocated to local authorities to ensure that no development takes place within the buffer zone.

8. With a view to promote recovery of recyclables and recycling of waste, the secretary UDD may direct the developers of special economic zones, industrial estates and industrial park to earmark at least 5% of their total land and construct shades for resource recovery, segregation and recycling of waste and direct all the industries situated within the estate to avail this facility to promote recycling.

9. Secretary UDD may give special emphasis to training and capacity building of local bodies in the areas of segregation and processing at source of waste generation as well as in the collection, transportation, community or city level processing and final disposal of residual waste at the sanitary landfill.

10. With a view to promote recycling and waste minimization, the secretary UDD may facilitate registration of waste picker, recyclers and waste dealers in their respective cities so that they could be involved in door to door
collection of recyclables or its collection from material recovery facilities. The waste pickers could be motivated to get involved in door to door collection of waste in a way that they take away the recyclables to earn their living and also derive some income from door to door collection of other waste to improve their financial health and quality of life.

11. With a view to promote decentralized processing in the state, the secretary UDD may direct its town planning department and municipal authorities to ensure that adequate space is earmarked for segregation, storage and decentralized processing of solid waste in all schemes of group housing or commercial, institutional or non residential complexes having more than 200 dwelling units or a plot area exceeding 5000 sq meters. This may be done by adding a condition in the building plan regulations as well as by listing out all existing housing schemes, commercial and institutional complexes that fall in the above category and direct them to set apart a portion of land and create common facilities for storage and processing of waste within the campus.

12. The secretary UDD as head of the department may create a mechanism to review the performance of all urban local bodies under his charge once in quarter and take suitable measures for expeditious implementation of the Rules.

4.8 Secretary, Village Panchayats or Rural Development Department

**Duties of the Secretary–in-charge of Village Panchayats or Rural Development Department in the States and Union Territories:**

(1) The Secretary–in-charge of Village Panchayats or Rural Development Department in the State and Union territory shall have the same duties as the Secretary–in-charge, Urban Development in the States and Union territories, for the areas which are covered under these rules and are under their jurisdictions.

**Actions Recommended for implementation of the Rule:**

- The secretary in charge of gram panchayats (with whatever name called) need to play the similar role as envisaged from secretary urban development, in respective of census towns (urbanised panchayats above 5000 population that are declared as census towns in their states.
• The Secretary Panchayats need to list out the panchayats that are declared as census towns in each district, appraise the district and block level development officers to educate the notified census towns on their role and responsibilities under as SWM Rules, 2016.

• For the sake of uniformity, the secretary may get developed simple IEC (Information, Education and Communication) material in vernacular language for creating public awareness in census towns and share it with all the districts under his charge.

• Regional training programs may be organised for census towns. District and block level officers in charge of Swachh Bharat Mission (SBM) may be charged with the responsibility to ensure that the census towns implement the Rules effectively.

• Villages being small entities, very simple systems of waste management may be adopted and decentralized processing at the door step or at a community level may be advocated. Segregation and storage of bio-degradable (food waste) and non bio-degradable wastes may be insisted at source.

• Emphasis may be laid on home composting or bio-gas generation. The segregated recyclables can be passed on to waste pickers or recyclers from the door step or it may be collected by the panchayats, stored at a common shade and sold out periodically to recyclers.

• The panchayats may have to be additionally educated on managing animal dung and animal feed waste. Such wastes are generally deposited by each rural household on the streets. Such sites of waste deposition could be converted into vermi-pits and animal dung can be converted into a useful bio organic fertiliser by the households.

• The panchayats could be encouraged to continue the current practice of households cleaning the areas in front of the dwelling units and organise sweeping of commercial streets and important public places schools, offices etc.
4.9 District Magistrate or District Collector or Deputy Commissioner

Duties of District Magistrate or District Collector or Deputy Commissioner:

The District Magistrate or District Collector or as the case may be, the Deputy Commissioner shall:

(a) facilitate identification and allocation of suitable land as per clause (f) of Rule ‘11’ for setting up solid waste processing and disposal facilities to local authorities in his district in close coordination with the Secretary-in-charge of State Urban Development Department within one year from the date of notification of these rules;

(b) review the performance of local bodies, at least once in a quarter on waste segregation, processing, treatment and disposal and take corrective measures in consultation with the Commissioner or Director of Municipal Administration or Director of local bodies and secretary-in-charge of the State Urban Development.

Actions Recommended for Implementation of the Rules:

The District Magistrate is the most respected officer in the district administration having wide powers and his words are treated as commands. He has two principal roles to play.

1) In close coordination with secretary UDD of the state, prepare a data base of urban local bodies and census towns in his district, their population, waste generation rate, requirement of land for processing and disposal of residual waste (as per yard stick given earlier) and availability of suitable land with each urban area. He may identify the deficiency in the availability of land with the local authorities and allocate suitable lands for processing and disposal of waste to the urban local bodies which do not have suitable land available with them. He may allocate the land either free of cost or on a token lease rent for a period of 25-30 years.

2) Review the performance of urban local bodies and census towns in his district at least once in a quarter to ensure waste segregation, collection, transportation, processing and disposal as per SWM Rules, 2016 and take corrective measures as required in consultation with CMA, DMA and secretary UDD/panchayats.
4.10 Central Pollution Control Board (CPCB)

Duties of Central Pollution Control Board.

The Central Pollution Control Board shall:
(a) co-ordinate with the State Pollution Control Boards and the Pollution Control Committees for implementation of these rules and adherence to the prescribed standards by local authorities;
(b) formulate the standards for ground water, ambient air, noise pollution, leachate in respect of all solid waste processing and disposal facilities;
(c) review environmental standards and norms prescribed for solid waste processing facilities or treatment technologies and update them as and when required;
(d) review through State Pollution Control Boards or Pollution Control Committees, at least once in a year, the implementation of prescribed environmental standards for solid waste processing facilities or treatment technologies and compile the data monitored by them;
(e) review the proposals of State Pollution Control Boards or Pollution Control Committees on use of any new technologies for processing, recycling and treatment of solid waste and prescribe performance standards, emission norms for the same within 6 months;
(f) monitor through State Pollution Control Boards or Pollution Control Committees the implementation of these rules by local bodies;
(g) prepare an annual report on implementation of these rules on the basis of reports received from State Pollution Control Boards and Committees and submit to the Ministry of Environment, Forest and Climate Change and the report shall also be put in public domain;
(h) publish guidelines for maintaining buffer zone restricting any residential, commercial or any other construction activity from the outer boundary of the waste processing and disposal facilities for different sizes of facilities handling more than five tons per day of solid waste;
(i) publish guidelines, from time to time, on environmental aspects of processing and disposal of solid waste to enable local bodies to comply with the provisions of these rules; and
(j) provide guidance to States or Union territories on inter-state movement of waste.
Actions Recommended for Implementation of the Rules:

- CPCB is an apex body for preventing environmental pollution in the country. The CPCB need to keep a track on the implementation of these Rules through the eyes of State Pollution Control Boards/Committees.

- It may in initial three years, take a quarterly review of the implementation of the Rules by urban local bodies, census towns and other entities covered under the Rules through State Pollution Control Boards and advise them to take follow-up/punitive action. The most important role is however to prescribe the standards of ground water, ambient air, noise pollution, leachate in respect of new technologies in SWM sector and monitor the adherence to environmental standards prescribed from time to time for Solid Waste processing facilities and disposal sites in the country.

- It needs to ensure that these standards are maintained by all local authorities/operators of the facility. CPCB may take a half yearly critical review of the adherence to the standards by local authorities and operators of the facilities through State Pollution Control Boards/Committees and through its own staff where considered necessary.

- As the apex body it may also issue guidelines from time to time on the environmental aspects of processing and disposal facilities and also publish guidelines for maintaining buffer zones restricting any residential, commercial or any other construction activity from the outer boundary of processing or disposal facility of different capacities.

- The CPCB may issue guidelines on inter-state movement of waste to facilitate setting up of regional processing and disposal facilities

4.11 State Pollution Control Board or Pollution Control Committees

Duties of State Pollution Control Board or Pollution Control Committee:

(1) The State Pollution Control Board or Pollution Control Committee shall,-

   (a) enforce these rules in their State through local bodies in their respective jurisdiction and review implementation of these rules at least twice a year in close coordination with concerned Directorate of Municipal Administration or Secretary-in-charge of State Urban Development Department;
(b) monitor environmental standards and adherence to conditions as specified under the Schedule I and Schedule II for waste processing and disposal sites;

(c) examine the proposal for authorisation and make such inquiries as deemed fit, after the receipt of the application for the same in Form I from the local body or any other agency authorised by the local body;

(d) while examining the proposal for authorisation, the requirement of consents under respective enactments and views of other agencies like the State Urban Development Department, the Town and Country Planning Department, District Planning Committee or Metropolitan Area Planning Committee, as may be applicable, Airport or Airbase Authority, the Ground Water Board, Railways, power distribution companies, highway department and other relevant agencies shall be taken into consideration and they shall be given four weeks time to give their views, if any;

(e) issue authorisation within a period of sixty days in Form II to the local body or an operator of a facility or any other agency authorised by local body stipulating compliance criteria and environmental standards as specified in Schedules I and II including other conditions, as may be necessary;

(f) synchronise the validity of said authorisation with the validity of the consents;

(g) suspend or cancel the authorization issued under clause (a) any time, if the local body or operator of the facility fails to operate the facility as per the conditions stipulated: provided that no such authorization shall be suspended or cancelled without giving notice to the local body or operator, as the case may be; and

(h) on receipt of application for renewal, renew the authorisation for next five years, after examining every application on merit and subject to the condition that the operator of the facility has fulfilled all the provisions of the rules, standards or conditions specified in the authorisation, consents or environment clearance.

(2) The State Pollution Control Board or Pollution Control Committee shall, after giving reasonable opportunity of being heard to the applicant and for reasons thereof to be recorded in writing, refuse to grant or renew an authorisation.

(3) In case of new technologies, where no standards have been prescribed by the Central Pollution Control Board, State Pollution Control Board or Pollution Control Committee, as the case may be, shall approach Central Pollution Control Board for getting standards specified.

(4) The State Pollution Control Board or the Pollution Control Committee, as the case may be, shall monitor the compliance of the standards as prescribed or laid down and treatment technology as approved and the conditions stipulated in the authorisation and the standards specified in Schedules I and II under these rules as and when deemed appropriate but not less than once in a year.
(5) The State Pollution Control Board or the Pollution Control Committee may give directions to local bodies for safe handling and disposal of domestic hazardous waste deposited by the waste generators at hazardous waste deposition facilities.

(6) The State Pollution Control Board or the Pollution Control Committee shall regulate Inter-State movement of waste.

Actions Recommended for Implementation of the Rules:

Sate Pollution Control Board (SPCB) has a very critical role to play for enforcing the implementation of the Rules in the respective states. The SPCB may therefore draw out plan to effectively ensure implementation of the Rules which may include:

- Review implementation of rules twice a year and enforce compliance
- Monitor adherence to environmental standards
- Give authorization for setting up treatment and disposal facilities
- Regulate inter-state movement of waste
- Give directions to local bodies for safe handling and disposal of domestic hazardous waste
- Get the standards laid down through CPCB for the technologies which are new and no standards have been prescribed earlier
- Take proactive measure to appraise the local authorities from time to time the deficiency observed in the implementation of the Rules and the corrective measures the local authorities need to take to avoid penal action.

This program could be jointly organized by the state agency and state PCB at least once in a year.

4.12 Local (Municipal) Authorities, Village Panchayats of Census Towns & Urban Agglomerations

Duties and responsibilities of local authorities and village Panchayats of census towns and urban agglomerations.-

The local authorities and Panchayats shall,-

(a) prepare a solid waste management plan as per state policy and strategy on solid waste management within six months from the date of notification of state policy and strategy and submit a copy to respective departments of State Government or Union territory Administration or agency authorised by the State Government or Union territory Administration;

(b) arrange for door-to-door collection of segregated solid waste from all households including slums and informal settlements, commercial, institutional
and other non residential premises. From multi-storage buildings, large commercial complexes, malls, housing complexes, etc., this may be collected from the entry gate or any other designated location;

c) establish a system to recognise organisations of waste pickers or informal waste collectors and promote and establish a system for integration of these authorised waste-pickers and waste collectors to facilitate their participation in solid waste management including door to door collection of waste;

d) facilitate formation of Self Help Groups, provide identity cards and thereafter encourage integration in solid waste management including door to door collection of waste;

(e) frame bye-laws incorporating the provisions of these rules within one year from the date of notification of these rules and ensure timely implementation;

(f) prescribe from time to time user fee as deemed appropriate and collect the fee from the waste generators on its own or through authorised agency;

(g) direct waste generators not to litter i.e. throw or dispose of any waste such as paper, water bottles, liquor bottles, soft drink canes, tetra packs, fruit peel, wrappers, etc., or burn or burry waste on streets, open public spaces, drains, waste bodies and to segregate the waste at source as prescribed under these rules and hand over the segregated waste to authorised the waste pickers or waste collectors authorised by the local body;

(h) set-up material recovery facilities or secondary storage facilities with sufficient space for sorting of recyclable materials to enable informal or authorised waste pickers and waste collectors to separate recyclables from the waste and provide easy access to waste pickers and recyclers for collection of segregated recyclable waste such as paper, plastic, metal, glass, textile from the source of generation or from material recovery facilities; Bins for storage of bio-degradable wastes shall be painted green, those for storage of recyclable wastes shall be printed white and those for storage of other wastes shall be printed black;

(i) establish waste deposition centres for domestic hazardous waste and give direction for waste generators to deposit domestic hazardous wastes at this centre for its safe disposal. Such facility shall be established in a city or town in a manner that one centre is set up for the area of twenty square kilometres or part thereof and notify the timings of receiving domestic hazardous waste at such centres;

(j) ensure safe storage and transportation of the domestic hazardous waste to the hazardous waste disposal facility or as may be directed by the State Pollution Control Board or the Pollution Control Committee;

(k) direct street sweepers not to burn tree leaves collected from street sweeping and store them separately and handover to the waste collectors or agency authorised by local body;

(l) provide training on solid waste management to waste-pickers and waste
(m) collect waste from vegetable, fruit, flower, meat, poultry and fish market on day to day basis and promote setting up of decentralised compost plant or bio-methanation plant at suitable locations in the markets or in the vicinity of markets ensuring hygienic conditions;
(n) collect separately waste from sweeping of streets, lanes and by-lanes daily, or on alternate days or twice a week depending on the density of population, commercial activity and local situation;
(o) set-up covered secondary storage facility for temporary storage of street sweepings and silt removed from surface drains in cases where direct collection of such waste into transport vehicles is not convenient. Waste so collected shall be collected and disposed of at regular intervals as decided by the local body;
(p) collect horticulture, parks and garden waste separately and process in the parks and gardens, as far as possible;
(q) transport segregated bio-degradable waste to the processing facilities like compost plant, bio-methanation plant or any such facility. Preference shall be given for onsite processing of such waste;
(r) transport non-bio-degradable waste to the respective processing facility or material recovery facilities or secondary storage facility;
(s) transport construction and demolition waste as per the provisions of the Construction and Demolition Waste Management Rules, 2016;
(t) involve communities in waste management and promotion of home composting, bio-gas generation, decentralised processing of waste at community level subject to control of odour and maintenance of hygienic conditions around the facility;
(u) phase out the use of chemical fertilizer in two years and use compost in all parks, gardens maintained by the local body and wherever possible in other places under its jurisdiction. Incentives may be provided to recycling initiatives by informal waste recycling sector.
(v) facilitate construction, operation and maintenance of solid waste processing facilities and associated infrastructure on their own or with private sector participation or through any agency for optimum utilisation of various components of solid waste adopting suitable technology including the following technologies and adhering to the guidelines issued by the Ministry of Housing & Urban Affairs from time to time and standards prescribed by the Central Pollution Control Board. Preference shall be given to decentralised processing to minimize transportation cost and environmental impacts such as:
   a) bio-methanation, microbial composting, vermi-composting, anaerobic digestion or any other appropriate processing for bio-stabilisation of biodegradable wastes;
   b) waste to energy processes including refuse derived fuel for combustible
fraction of waste or supply as feedstock to solid waste based power plants or cement kilns;

(w) undertake on their own or through any other agency construction, operation and maintenance of sanitary landfill and associated infrastructure as per Schedule-I for disposal of residual wastes in a manner prescribed under these rules;

(x) make adequate provision of funds for capital investments as well as operation and maintenance of solid waste management services in the annual budget ensuring that funds for discretionary functions of the local body have been allocated only after meeting the requirement of necessary funds for solid waste management and other obligatory functions of the local body as per these rules;

(y) make an application in Form-I for grant of authorisation for setting up waste processing, treatment or disposal facility, if the volume of waste is exceeding five metric tones per day including sanitary landfills from the State Pollution Control Board or the Pollution Control Committee, as the case may be;

(z) submit application for renewal of authorisation at least sixty days before the expiry of the validity of authorisation;

(za) prepare and submit annual report in Form IV on or before the 30th April of the succeeding year to the Commissioner or Director, Municipal Administration or designated Officer;

(zb) the annual report shall then be sent to the Secretary-in-Charge of the State Urban Development Department or village panchayat or rural development department and to the respective State Pollution Control Board or Pollution Control Committee by the 31st May of every year;

(zc) educate workers including contract workers and supervisors for door to door collection of segregated waste and transporting the unmixed waste during primary and secondary transportation to processing or disposal facility;

(zd) ensure that the operator of a facility provides personal protection equipment including uniform, fluorescent jacket, hand gloves, raincoats, appropriate footwear and masks to all workers handling solid waste and the same are used by the workforce;

(ze) ensure that provisions for setting up of centres for collection, segregation and storage of segregated wastes, are incorporated in building plan while granting approval of building plan of a group housing society or market complex; and

(zf) frame bye-laws and prescribe criteria for levying of spot fine for persons who litters or fails to comply with the provisions of these rules and delegate powers to officers or local bodies to levy spot fines as per the bye laws framed; and

(zg) create public awareness through Information, Education and Communication (IEC) campaign and educate the waste generators on the following; namely:-

(i) not to litter;

(ii) minimise generation of waste;
(iii) reuse the waste to the extent possible;
(iv) practice segregation of waste into bio-degradable, non-biodegradable (recyclable and combustible), sanitary waste and domestic hazardous wastes at source;
(v) practice home composting, vermi-composting, bio-gas generation or community level composting;
(vi) wrap securely used sanitary waste 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;
(vii) storage of segregated waste at source in different bins;
(viii) handover segregated waste to waste pickers, waste collectors, recyclers or waste collection agencies; and
(ix) pay monthly user fee or charges to waste collectors or local bodies or any other person authorised by the local body for sustainability of solid waste management.

(zh) stop land filling or dumping of mixed waste soon after the timeline as specified in Rule ‘22’ for setting up and operationalisation of sanitary landfill is over;

(zi) allow only the non-usable, non-recyclable, non-biodegradable, non-combustible and non-reactive inert waste and pre-processing rejects and residues from waste processing facilities to go to sanitary landfill and the sanitary landfill sites shall meet the specifications as given in Schedule—I, however, every effort shall be made to recycle or reuse the rejects to achieve the desired objective of zero waste going to landfill;

(zj) investigate and analyse all old open dumpsites and existing operational dumpsites for their potential of bio-mining and bio-remediation and wherever feasible, take necessary actions to bio-mine or bio-remediate the sites;

(zk) in absence of the potential of bio-mining and bio-remediation of dumpsite, it shall be scientifically capped as per landfill capping norms to prevent further damage to the environment.

**Actions Recommended for implementation of the Rule:**

Municipal authorities and village panchayats of census towns are the authorities which are primary responsible for the management of Solid waste in their jurisdiction. These authorities need to take series of measures to ensure that the Solid Waste is minimized, safely stored, collected, transported, processed and disposed of in an environmentally acceptable manner.
The following steps may be taken on priority by all local authorities covered under the Rules:

- Prepare solid waste management plan as per state policy
- Create public awareness on role of the community in the management of Solid Waste
- Prohibit littering, direct segregation of waste at source, arrange door to door collection of segregated waste from households and other commercial and institutional premises
- Promote home composting, bio-gas plant, community level processing
- Recognize organizations of waste pickers/informal recyclers and integrate them into the systems of SWM
- Set-up/facilitate the setting-up of, though private operator, a common facility for bio-methanation or composting of segregated wet waste. (Though high in capital cost, Bio-methanation is a preferred option as it may produce less odour and also produce energy or bio-fuel/gas)
- Setup/facilitate setting up of, by private sector, Material Recovery Facilities (MRF) as defined in the Rules, for sorting of recyclables by authorised waste pickers/recyclers etc and provide easy access to them at the facility. Such MRF should have established channels for utilization or recycling of segregated material, such as plastic/metal/glass waste, to recyclers integrated with RDF Plant with linkage to cement plants or to waste feed based industrial boilers or integrated with ‘Waste to Energy’ plants to produce electricity.
- Setup domestic hazardous waste deposition centres at suitable locations in the urban area. Each small city or town may have at least one such centre where as large cities may have multiple centres with density of 1 centre per 25 sq.km city area.
- Facilitate constructions and O&M of waste processing facilities.
- Transport segregated waste to waste processing facility/material recovery facility
- Setup sanitary landfill for disposal of residual waste
- Frame bye-laws within one year, prescribe spot fines & ensure timely implementation.
• Prescribe user fees

**Description of duties and responsibilities of urban local bodies, urbanised panchayats and urban agglomerations:**

The local authorities mentioned above need to take several actions simultaneously as under to ensure expeditious implementation of the Rules as spelt out in Rule ‘15’:

i) The local authorities should carefully look at the state policy and strategy that may be circulated to them and prepare Solid Waste Management plan for the local body and take measures for time bound implementation of the Rules. This may be done by setting up a task force within the organisation for preparing the plan. External assistance of experts may be taken if and when required to make a comprehensive sustainable plan in keeping with state policy.

ii) While the policy document is under preparation; the local body may in accordance with SWM Rules, 2016; take up a massive public awareness campaign to educate the masses on the following:
   a) Not to litter on the streets, open spaces, water bodies, drains etc.
   b) Keep at least two bins of 12-15 litre capacity at home one for biodegradable (wet) waste and another for non biodegradable (dry) waste.
   c) Segregate wet and dry waste at source and store in separate bins.
   d) Make an effort to do home composting or bio-gas generation from biodegradable waste and handover recyclables to waste pickers or recyclers and minimize the waste at source and handover the remaining waste to the waste collectors designated by the local authority.
   e) Municipal authority may involve, educate and promote the community in home composting, bio-gas generation and decentralised processing ensuring that it does not cause any unhygienic conditions, odour etc.
   f) As and when any domestic hazardous waste is generated, it may not be mixed with the waste kept in bins meant for wet and dry waste and instead it may be kept separate for being handled separately and safely.
   g) As and when Construction and Demolition (C&D) or horticulture waste is generated in the premises, such waste shall also be kept separate and disposed off as per C&D Waste Rules 2016 and SWM Rules 2016 respectively.

iii) The awareness campaign may be followed by organising door to door collection of the segregated waste. The local authority may identify areas
accessible by motorized vehicles and non accessible areas in the city and plan
for door to door collection on a daily basis. Keeping in view high density of
Indian waste, a light commercial vehicle of 3-5 cum capacity may be procured
per 2000 households and a containerised tri cycle or hand cart may be
procured per 200 households for door to door collection from in accessible
areas. The collection vehicles may have central partition to facilitate
collection of wet and dry waste in separate compartments or collection
system/timings may be specified to collect wet and dry waste separately. The
door to door collection may be adopted as per Annexure – A.

iv) Collection from large commercial complexes or gated housing societies may
be organised from the entry gate or designated locations instead of collecting
waste from individual units. Such complexes could be directed to store their
waste in a segregated manner at designated location to facilitate easy
collection

v) With a view to promote recycling, identify or promote waste pickers/recyclers/associations/organisations/self-help-groups and make an
effort to integrate them into the system of primary collection of waste that
may enable them to pick up recyclables from the door step to earn their
living without being part of the municipal establishment. They could be given
identity cards by the local authority as persons associated in Solid Waste
Management of the city. The association could participate in the tender
process for taking contracts for door to door collection by suitably relaxing
the condition of the contract in favour of informal sector without
compromising on the quality of service.

vi) Creation of Material Recovery Facilities (MRF)

The ideal situation would be to facilitate the collection of recyclables from
the door step. In a situation where integration of waste pickers/recyclers has
not been made at the waste collection stage, the municipal authority may
provide one more opportunity to waste pickers/authorised recyclers to pick
up recyclables from the waste stream before the waste is taken up for
processing or disposal. MRF may be set up at such location that it may
minimise multiple handling and transportation of waste. The MRF may
therefore be suitably set up near the transfer station or at a location in close
proximity to the waste processing facility. Waste pickers/recyclers may be
given free access to MRF to pick up recyclables so that the quantity of waste
is minimised and recyclables are optimally processed for deriving new
product saving natural resources. The MRF facility should have adequate
vii) With a view to ensure safe disposal of domestic hazardous waste, the municipal authority may set up one or more hazardous waste collection centre with the density of 1 such centre per 25 sq km of the city area and give directions to the citizens to deposit all their domestic hazardous waste at such centre during the time specified. The municipal authority may tie up and make arrangement with hazardous waste disposal facility in consultation with state pollution control board for ensuring safe transportation and disposal of such waste. The centre so established may be well equipped to store separately and safely various types of domestic hazardous wastes.

viii) The municipal authority may promote setting up decentralized compost plants or bio-methanation plants at suitable locations within the vegetable, fruit, flower, meat, fish, poultry markets or in the vicinity of markets and minimise the cost of collection, transportation and centralized processing. The market associations could be motivated to set up such facility and educate its members to segregate all bio-degradable wastes and deposit at the processing facility that may be created within the market or in the vicinity of the market and contribute towards the cost of O&M of such facility.

ix) Municipal authority may set up compost plants within the parks and gardens for processing horticulture and garden waste and utilize the same within the parks and gardens to the extent possible thus minimize the cost of collection and transportation of this organic matter as well as reduce the cost of purchasing fertilizers.

x) The municipal authority may create a mechanism of collection and transportation of different streams of waste as under:
   a) Bio-degradable waste from the door step to the processing facility
   b) Dry non bio-degradable wastes including recyclables wastes that are not handed over to waste pickers or recyclers at the door step, to the material recovery facilities set up at secondary storage, transfer station or at waste processing facility
   c) Street sweepings to the disposal site through MRF
   d) Construction and demodulation waste from the city in terms of C&D Waste Rules, 2016
   e) Horticulture and garden waste that could not be composted within the premises.
xi) Municipal authority may identify locations where secondary storage facilities need to be created to enable street sweepers to deposit the waste collected by them in their handcars/tricycles etc to facilitate onward transportation in bulk to the MRF/disposal facilities. Such facilities may be created at the rate of at least 4 storage depots per sq km of the city area and to ensure that a bin is available at an interval of 500 meters and sanitation worker does not have to walk for more than 250 meters to deposit his waste in the container. The size of container could depend on quantity of waste expected to be received at the depot. These depots should be kept clean and the waste deposited in the containers must be transported before the bins start overflowing or at least twice a week whichever is earlier. Effort should be made to directly transport the street sweepings through collection vehicles and make the city bin less.

xii) Municipal authority may construct or facilitate the construction, operation, and maintenance of solid waste processing facilities on their own or through private sector participation or through any agency and ensure optimum utilisation of all components of waste adopting most appropriate technology such as bio methanation, microbial composting, vermi composting, anaerobic digestion technology and ‘waste to energy’ from combustible fraction of non recyclable waste or keep aside combustible material and supply the same as feed stock to solid waste based power plants or cement kilns.

xiii) Municipal authority may undertake on their own or through any other agency the construction, operation and maintenance of sanitary landfill and associated infrastructure such as internal roads, office, shade for parking of vehicles and machineries, washrooms etc for the disposal of residual waste such as streets sweepings, silt from drains, residual waste from processing facilities etc.

4.13 Manufacturers or Brand Owners of Disposable Products and Sanitary Napkins & Diapers

Duty of manufacturers or brand owners of disposable products and sanitary napkins and diapers.-

(1) All manufacturers of disposable products such as tin, glass, plastics packaging, etc., or brand owners who introduce such products in the market shall provide necessary financial assistance to local authorities for establishment of waste management system.
(2) All such brand owners who sell or market their products in such packaging material which are non-biodegradable shall put in place a system to collect back the packaging waste generated due to their production.

(3) Manufacturers or brand owners or marketing companies of sanitary napkins and diapers shall explore the possibility of using all recyclable materials in their products or they shall provide a pouch or wrapper for disposal of each napkin or diapers along with the packet of their sanitary products.

(4) All such manufacturers, brand owners or marketing companies shall educate the masses for wrapping and disposal of their products.

**Actions Recommended for implementation of the Rules:**

The manufacturers of disposable products need to be conscious about their corporate social responsibility and take proactive measures to facilitate implementation of the Rules as under:

- Provide financial assistance to local authorities to establish waste management system to collect, transport and dispose off disposable material from the waste streams.

- The manufacturers of branded products using non bio-degradable packaging material shall put in place a system to collect back such packaging material from their outlets or by setting up special waste collection centres. They may incentivise waste pickers/recyclers to join hands with the local authority in collection of such waste.

- The use of sanitary napkins and diapers is increasing rapidly in the country. Therefore before the management of such waste becomes very cumbersome, manufacturers of sanitary napkins and diapers may be persuaded to explore the possibility of using recyclable materials or provide pouch or wrapper for safe disposal of such waste. It may be emphasised that in larger interest and environmental production the first option of replacing non bio-degradable component from their product would be most desirable.

## 4.14 Industrial units Located within 100 km from Refuse Derived Fuel (RDF) and ‘Waste to Energy’ Plants based on Solid Waste

**Duties of the industrial units located within one hundred km from the refuse derived fuel and waste to energy plants based on solid waste:**

All industrial units using fuel and located within one hundred km from a solid
waste based refuse derived fuel plant shall make arrangements within six months from the date of notification of these rules to replace at least five percent of their fuel requirement by refuse derived fuel so produced.

Actions Recommended for Implementation of the Rules:

- The local authorities may prepare a list of industries situated within 100 km from the urban area and ascertain the requirement of power/fuel of such plants.

- The local authorities may explore the option of setting up RDF plant within their own city or for a cluster of cities at a suitable location at their own or through private sector participation.

- The local authority together with the operator of the facility may negotiate with the industry to utilise RDF produced by the local authority in their industry as an optional fuel, taking into consideration the calorific value of RDF vis-à-vis the fuel the industry currently uses in the plant and the cost benefit the industry may derived by using RDF in leave of conventional fuel.

- In case the matter does not get settled through negotiations, the industry may be mandated to use RDF at least to the extent of 5% of the fuel they use in the industry as per Rule ‘18’ above.

5.0 Timeframe for Implementation

The Rules lay down a time frame for implementation of Rules by the local bodies and/or other concerned authorities, by creating necessary infrastructure on their own or by engaging agencies, as per the table below:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Activity</th>
<th>Time Limit from Date of Notification of Rules</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identification of suitable sites for setting up solid waste processing facilities</td>
<td>1 year</td>
</tr>
<tr>
<td>2</td>
<td>Identification of suitable sites for setting up common regional sanitary landfill facilities for suitable clusters of local authorities under 0.5 million population and for setting up common regional sanitary landfill facilities or stand alone sanitary landfill facilities by all local authorities having a population of 0.5 million or more</td>
<td>1 year</td>
</tr>
<tr>
<td>Sl. No.</td>
<td>Activity</td>
<td>Time Limit from Date of Notification of Rules</td>
</tr>
<tr>
<td>--------</td>
<td>--------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>3</td>
<td>Procurement of suitable sites for setting up solid waste processing facility and sanitary landfill facilities</td>
<td>2 year</td>
</tr>
<tr>
<td>4</td>
<td>Enforcing waste generators to practice segregation of bio degradable, recyclable, combustible, sanitary, domestic hazardous and inert solid wastes at source</td>
<td>2 year</td>
</tr>
<tr>
<td>5</td>
<td>Ensure door to door collection of segregated waste and its transportation in covered vehicles to processing or disposal facilities</td>
<td>2 year</td>
</tr>
<tr>
<td>6</td>
<td>Ensure separate storage, collection and transportation of construction and demolition wastes</td>
<td>2 year</td>
</tr>
<tr>
<td>7</td>
<td>Setting up solid waste processing facilities by all local bodies having 100000 or more population</td>
<td>2 year</td>
</tr>
<tr>
<td>8</td>
<td>Setting up solid waste processing facilities by local bodies and census towns below 100000 population.</td>
<td>3 year</td>
</tr>
<tr>
<td>9</td>
<td>Setting up common or stand alone sanitary landfills by or for all local bodies having 0.5 million or more population for the disposal of only such residual wastes from the processing facilities as well as untreated inert wastes as permitted under the Rules</td>
<td>3 year</td>
</tr>
<tr>
<td>10</td>
<td>Setting up common or regional sanitary landfills by all local bodies and census towns under 0.5 million population for the disposal of permitted waste under the rules</td>
<td>3 year</td>
</tr>
<tr>
<td>11</td>
<td>Bio-remediation or capping of old and abandoned dump sites</td>
<td>5 year</td>
</tr>
</tbody>
</table>

6.0 Need of Institutional Strengthening as well as Training and Capacity Building of Local Authorities to Facilitate Implementation of the Rules Effectively

Institutional Strengthening:

- Solid waste management requires managerial and technical skills
- Each city should have directorate or department of SWM
- The department should be headed by an environmental or civil engineer with experience in SWM
The institutional structure of the SWM department could be as under:

**Cities above 50 lakh Population**

- Public Health Engineer or Environmental Engineer or Civil Engineer having training in environmental or public health engineering of the level of Chief Engineer to be in charge of SWM department
- Superintending Engineer per 40 lakh population or part thereof
- Rest of the officers, supervisors etc. as per yardsticks already indicated in Sections 1.4.5.4.2 to 1.4.5.4.5 of the national manual

**Cities between 20 and 50 lakh Population**

- Public Health Engineer or Environmental Engineer or Civil Engineer having training in environmental or public health engineering of the level of Superintending Engineer to be the Head of SWM Department
- Public Health or Environmental Engineer or Civil Engineer having training in environmental or public health engineering of the level of Executive Engineer
- One Executive Engineer per 20 lakh population or part thereof
- Rest of the supervisors and staff as per the yardstick already indicated in Sections 1.4.5.4.2 to 1.4.5.4.4 of the national manual

**Cities between 5 and 20 lakh Population**

- Public Health or Environmental Engineer or Civil Engineer having training in environmental or public health engineering of the level of Executive Engineer to be in-charge of SWM department
- Public Health or Environmental Engineer or Civil Engineer having training in environmental or public health engineering of the level of Assistant Executive Engineer per 5 lakh population
- Public Health or Environmental Engineer or Civil Engineer having training in environmental or public health engineering of the level of Assistant Engineer per 2.5 lakh population
- One experienced Junior Engineer, per 2.5 lakh population
- Chief Sanitary Inspector or Sanitary Officers, Sanitary Inspectors, Sanitary Sub-inspectors and Sanitary Supervisors as per yardstick indicated in Section 1.4.5.4.2 of the manual

**Cities between 2.5 and 5 lakh Population**

- Public Health or Environmental Engineer or Civil Engineer having training in environmental or public health engineering in the Grade of Assistant Executive Engineer to be in charge of SWM department
• Public Health or Environmental Engineer in the grade of Assistant Engineer to look after the transportation, processing and disposal of waste
• One experienced Junior Engineer, per 2.5 lakh population
• Chief Sanitary Inspector or Sanitary Officers to supervise storage, street sweeping, and primary collection of waste per 1 lakh population
• Sanitary Inspectors, Sanitary Sub-inspectors, Sanitary Supervisors as per yardstick indicated in Section 1.4.5.4.2 of the national manual

Cities between 1 and 2.5 lakh Population

• One experienced graduate engineer or Equivalent Health Officer
• One experienced Junior Engineer per 1 lakh population
• Qualified sanitation diploma holder Chief Sanitary Inspector or Sanitation Officer to look after the collection, transportation, processing and disposal of waste: 1 per 1 lakh population/part thereof or 1 per 2 Sanitary Inspectors, whichever is less. Qualified sanitation diploma holder Sanitary Inspector: 1 per 50,000 population/part thereof or 1 per 80 sweepers, whichever is less
• Qualified sanitation diploma holder Sanitary Sub-inspector: 1 per 25,000 population/part thereof or 1 per 40 sweepers, whichever is less. Sanitary Supervisors (a person who can read, write, and report): 1 per 12,500 population/part thereof or 1 per 20 sweepers, whichever is less.

Towns below 1 lakh Population

• One experienced Junior Engineer, if the population is more than 50,000 or in places with high floating population
• One qualified sanitation diploma holder or Chief Sanitary Inspector or as Sanitary Officer if the population is more than 50,000
• One qualified Sanitary Inspector per 50,000 population
• One qualified Sanitary Sub-inspector per 25,000 population. One Sanitary Supervisor per 12,500 population

6.1 Training Programs and Handholding where Required

The subject of solid waste management has remained neglected for a very long time and the personnel engaged in SWM services have very little exposure to modern systems and technologies for managing the waste efficiently and cost effectively. The personnel at various levels need to be imparted training and subjected to refresher courses from time to time. States may be given support to set up a few model SWM projects in the state to enable other cities to replicate the best practices. Handholding of such select cities may be done through panel of experts.
6.2 Financial Allocations

Solid waste management services could be supported from various sources of finance such as SBM (U), fourteenth finance commission grants, state finance commission grants as well as internal finances of the state and municipal authorities. Capital investments could be found from the aforesaid sources. However, for the sustainability of the SWM services, adequate funds need to be made available for the O&M of the service.

Certain measures, as mentioned below, must be taken to ensure suitability:

1. Levy of user fees to cover part of the cost of service.
2. Adopt PPP model of service delivery to reduce financial burden on the ULB towards capital investment and manage the service efficiently and cost effectively.
3. Restrict expenditure on non essential/discretionary municipal services and divert municipal funds towards essential mandatory services such as SWM.
4. Involve community in waste minimization through the concept of RRRR to reduce the day to day cost of operations.

7.0 Criteria for Duties regarding Setting-up Solid Waste Processing & Treatment Facility

(1) The department in-charge of the allocation of land assignment shall be responsible for providing suitable land for setting up of the solid waste processing and treatment facilities and notify such sites by the State Government or Union Territory Administration.

(2) The operator of the facility shall design and setup the facility as per the technical guidelines issued by the Central Pollution Control Board in this regard from time to time and the manual on solid waste management prepared by the Ministry of Housing & Urban Affairs.

(3) The operator of the facility shall obtain necessary approvals from the State Pollution Control Board or Pollution Control Committee.

(4) The State Pollution Control Board or Pollution Control Committee shall monitor the environment standards of the operation of the solid waste processing and treatment facilities.

(5) The operator of the facility shall be responsible for the safe and environmentally sound operations of the solid waste processing and/or treatment facilities as per the guidelines issued by the Central Pollution Control Board from time to time and the
Manual on Solid Waste Management published by the CPHEEO, Ministry of Housing & Urban Affairs and updated from time to time.

(6) The operator of the solid waste processing and treatment facility shall submit annual report in Form III each year by 30th April to the State Pollution Control Board or Pollution Control Committee and concerned local body.

8.0 Criteria and Actions to be taken for Solid Waste Management in Hilly Areas

In the hilly areas, the duties and responsibilities of the local authorities shall be the same as mentioned in Rule ‘15’ with additional clauses as under:

(a) Construction of landfill on the hill shall be avoided. A transfer station at a suitable enclosed location shall be setup to collect residual waste from the processing facility and inert waste. A suitable land shall be identified in the plain areas down the hill within 25 kilometers for setting up sanitary landfill. The residual waste from the transfer station shall be disposed of at this sanitary landfill.

(b) In case of non-availability of such land, efforts shall be made to set up regional sanitary landfill for the inert and residual waste.

(c) Local body shall frame Bye-laws and prohibit citizen from littering wastes on the streets and give strict direction to the tourists not to dispose any waste such as paper, water bottles, liquor bottles, soft drink canes, tetra packs, any other plastic or paper waste on the streets or down the hills and instead direct to deposit such waste in the litter bins that shall be placed by the local body at all tourist destinations.

(d) Local body shall arrange to convey the provisions of solid waste management under the bye-laws to all tourists visiting the hilly areas at the entry point in the town as well as through the hotels, guest houses or like where they stay and by putting suitable hoardings at tourist destinations.

(e) Local body may levy solid waste management charge from the tourist at the entry point to make the solid waste management services sustainable.

(f) The department in-charge of the allocation of land assignment shall identify and allot suitable space on the hills for setting up decentralised waste processing facilities. Local body shall set up such facilities. Step garden system may be adopted for optimum utilisation of hill space.

9.0 Criteria for Waste to Energy Process

(1) Non recyclable waste having calorific value of 1500 K/cal/kg or more shall not be disposed of on landfills and shall only be utilised for generating energy either or
through refuse derived fuel or by giving away as feed stock for preparing refuse derived fuel.

(2) High calorific wastes shall be used for co-processing in cement or thermal power plants.

(3) The local body or an operator of facility or an agency designated by them proposing to set up waste to energy plant of more than five tones per day processing capacity shall submit an application in Form-I to the State Pollution Control Board or Pollution Control Committee, as the case may be, for authorisation.

(4) The State Pollution Control Board or Pollution Control Committee, on receiving such application for setting up waste to energy facility, shall examine the same and grant permission within sixty days.

10.0 State Level Advisory Body

(1) Every Department in-charge of local bodies of the concerned State Government or Union territory administration shall constitute a State Level Advisory Body within six months from the date of notification of these rules comprising the following members, namely:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Designation</th>
<th>Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Secretary, Department of Urban Development or Local self government department of the State</td>
<td>Chairperson, ex-officio</td>
</tr>
<tr>
<td>2.</td>
<td>One representative of Panchayats or Rural Development Department, not below the rank of Joint Secretary to State Government</td>
<td>Member, ex-officio</td>
</tr>
<tr>
<td>3.</td>
<td>One representative of Revenue Department of State Government</td>
<td>Member, ex-officio</td>
</tr>
<tr>
<td>4.</td>
<td>One representative from Ministry of Environment, Forest and Climate Change, Government of India</td>
<td>Member, ex-officio</td>
</tr>
<tr>
<td>5.</td>
<td>One representative from Ministry of Urban Development, Government of India</td>
<td>Member, ex-officio</td>
</tr>
<tr>
<td>6.</td>
<td>One representative from Ministry of Rural Development, Government of India</td>
<td>Member, ex-officio</td>
</tr>
<tr>
<td>7.</td>
<td>One representative from the Central Pollution Control Board</td>
<td>Member, ex-officio</td>
</tr>
<tr>
<td>8.</td>
<td>One representative from the State Pollution Control Board or Pollution Control Committee</td>
<td>Member, ex-officio</td>
</tr>
<tr>
<td>9.</td>
<td>One representative from Indian Institute of Technology or National Institute of Technology</td>
<td>Member, ex-officio</td>
</tr>
<tr>
<td>Sl. No.</td>
<td>Designation</td>
<td>Member</td>
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<tr>
<td>10.</td>
<td>Chief town planner of the state</td>
<td>Member</td>
</tr>
<tr>
<td>11.</td>
<td>Three representatives from the local bodies by rotation</td>
<td>Member</td>
</tr>
<tr>
<td>12.</td>
<td>Two representatives from census towns or urban agglomerations by rotation</td>
<td>Member</td>
</tr>
<tr>
<td>13.</td>
<td>One representative from reputed Non-Governmental Organisation or Civil Society</td>
<td>Member</td>
</tr>
<tr>
<td></td>
<td>working for the waste pickers or informal recycler or solid waste management</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>One representative from a body representing Industries at the State or Central</td>
<td>Member</td>
</tr>
<tr>
<td></td>
<td>level</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>One representative from waste recycling industry</td>
<td>Member</td>
</tr>
<tr>
<td>16.</td>
<td>Two subject experts</td>
<td>Member</td>
</tr>
<tr>
<td>17.</td>
<td>Co-opt one representative each from agriculture department, and labour</td>
<td>Member</td>
</tr>
<tr>
<td></td>
<td>department of State Government</td>
<td></td>
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</tbody>
</table>

(2) The State Level Advisory Body shall meet at least one in every six months to review the matters related to implementation of these rules, state policy and strategy on solid waste management and give advice to state government for taking measures that are necessary for expeditious and appropriate implementation of these rules.

(3) The copies of the review report shall be forwarded to the State Pollution Control Board or Pollution Control Committee for necessary action.

11.0 Annual Report

(1) The operator of facility shall submit the annual report to the local body in Form-III on or before the 30th day of April every year.

(2) The local body shall submit its annual report in Form-IV to State P Control Board or P Committee and the Secretary-in-Charge of the Department of Urban Development of the concerned State or Union Territory in case of metropolitan city and to the Director of Municipal Administration or Commissioner of Municipal Administration or Officer in -Charge of Urban local bodies in the state in case of all other local bodies of state on or before the 30th day of June every year.

(3) Each State Pollution Control Board or Pollution Control Committee as the case may be, shall prepare and submit the consolidated annual report to the Central Pollution Control Board and Ministry of Urban Development on the implementation of these rules and action taken against non complying local body by the 31stday of July of each year in Form-V.
(4) The Central Pollution Control Board shall prepare a consolidated annual review report on the status of implementation of these rules by local bodies in the country and forward the same to the Ministry of Urban Development and Ministry of Environment, Forest and Climate Change, along with its recommendations before the 31st day of August each year.

(5) The annual report shall be reviewed by the Ministry of Environment, Forest and Climate Change during the meeting of Central Monitoring Committee.

12.0 Accident Reporting

In case of an accident at any solid waste processing or treatment or disposal facility or landfill site, the Officer-in-charge of the facility shall report to the local body in Form-VI and the local body shall review and issue instructions if any, to the in-charge of the facility.

13.0 Schedules

The SWM Rules, 2016 contain two schedules prescribing the details as mentioned further. These schedules should be referred for complying with the specifications and the standards prescribed therein.

Schedule – I : Specifications for Sanitary Landfills
Schedule – II : Standards for Processing and Treatment of Solid Waste

<table>
<thead>
<tr>
<th>Schedule No.</th>
<th>Sections</th>
<th>Details Prescribed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedule – I</td>
<td>A.</td>
<td>Criteria for site selection</td>
</tr>
<tr>
<td></td>
<td>B.</td>
<td>Criteria for development of facilities at the sanitary landfills</td>
</tr>
<tr>
<td></td>
<td>C.</td>
<td>Criteria for specifications for land-filling operations and closure on completion of land filling</td>
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<tr>
<td></td>
<td>D.</td>
<td>Criteria for pollution prevention</td>
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<tr>
<td></td>
<td>E.</td>
<td>Criteria for water quality monitoring</td>
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<td></td>
<td>F.</td>
<td>Criteria for ambient air quality monitoring</td>
</tr>
<tr>
<td></td>
<td>G.</td>
<td>Criteria for plantation at landfill site</td>
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<tr>
<td></td>
<td>H.</td>
<td>Criteria for post-care of landfill site</td>
</tr>
<tr>
<td></td>
<td>I.</td>
<td>Criteria for special provisions for hilly areas</td>
</tr>
<tr>
<td></td>
<td>J.</td>
<td>Closure and rehabilitation of old dumps</td>
</tr>
</tbody>
</table>


### Schedule No. Sections Details Prescribed

<table>
<thead>
<tr>
<th>Schedule – II</th>
<th>Standards for Processing and Treatment of Solid Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A. Standards for composting</td>
</tr>
<tr>
<td></td>
<td>B. Standards for treated leachates</td>
</tr>
<tr>
<td></td>
<td>C. Standards for incineration</td>
</tr>
</tbody>
</table>

#### 14.0 Forms

The formats of different documents relevant to the Rules have been given in the form of forms in Rules. The different prescribed forms and their contents have been given further.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Form No.</th>
<th>Description of Form Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Form - I</td>
<td>Format of application for obtaining authorisation under solid waste management rules for processing/recycling/treatment and disposal of solid waste</td>
</tr>
<tr>
<td>2.</td>
<td>Form - II</td>
<td>Format for issue of authorisation</td>
</tr>
<tr>
<td>3.</td>
<td>Form - III</td>
<td>Format of annual report to be submitted by the operator of facility to the local body</td>
</tr>
<tr>
<td>4.</td>
<td>Form - IV</td>
<td>Format for annual report on solid waste management to be submitted by the local body</td>
</tr>
<tr>
<td>5.</td>
<td>Form - V</td>
<td>Format of annual report to be submitted by the state pollution control board or pollution control committee to the central pollution control board</td>
</tr>
<tr>
<td>6.</td>
<td>Form - VI</td>
<td>Format of accident reporting</td>
</tr>
</tbody>
</table>
Annexure - A

Standard of Door to Door Waste Collection Expected

The city council/corporation may be divided into units of households, shops, establishments each and allot 1 LCV for door to door collection of waste per 1500 units. Two sanitation workers per unit may be assigned the work of door to door collection of waste every day in the morning between 7 am and 11 am or any other time that may be convenient to the households and between 9 am and 1 pm in commercial areas. For collecting waste from 25% of inaccessible areas, the council may use containerized tricycles. The council may divide households in groups of 200 nos. and allocate work of door to door collection to one sanitation worker per 200 households.

1. Standard of Services in the Areas Accessible through Motorized Vehicles

   a. The concessionaire shall deploy at least one covered motorized tipping LC vehicle per 1500 households for Door to Door Collection of Waste, from residential and non-residential premises. The vehicles shall have non-conventional horn so as to alert the citizens about the arrival of waste collection vehicle. If capacity of vehicle is smaller than 1 ton MSW, number of vehicles shall be increased proportionately.

   b. Motorized vehicles shall ply on roads, streets, lanes & bye-lanes and each vehicle shall be accompanied by at least 2 sanitary workers. The driver shall blow the horn and the sanitary workers shall blow the whistle intermittently and collect the Waste from all the households, shops & establishments situated on both sides of the road/street in the wards allotted under the contract for Door to Door Collection. The waste collectors shall collect the domestic/trade bins from the member or representative of the households, shops or establishments who may come forward to hand over the Waste to the waste collector on hearing the horn or the whistle.
c. Waste collectors shall in a routine course, educate citizens to segregate Bio-
degradable and Non bio-degradable waste and keep ready in two bins and
handover as soon as they hear the sound of the horn or whistle.

d. The waste collector shall transfer the contents of the domestic/trade bin into
the waste collection vehicle and return back the container to the person who
had handed over the waste.

e. The waste collector shall also pick up the Waste from the entrance of the
premises if kept in a lift-able container not exceeding 60 liters capacity by the
Waste generator. Waste collector, after emptying the container into waste
collection vehicle, shall keep back the container to its original place.

f. In case of multi storied buildings or large commercial complexes/malls the
waste collector will not be required to approach each unit in the premises.
The waste collector shall report in front of the premises near the entrance at
the ground floor, announce his arrival and give reasonable time to the
residents/traders/occupiers/management of the premises to deliver their
Waste to the waste collector.

g. The Concessionaire may enter into a working arrangement with large
commercial/institutional establishment/malls etc to pick up their Waste from
a fixed point in their premises easily accessible to the waste collection
vehicle.

h. The waste collectors shall move from house to house to collect the Waste
from the entrance and shall not insist on the households to come to the
vehicle and deposit the Waste inside the vehicle.

i. The waste collectors shall not enter inside the household premises for
collection of Waste to save time and avoid any allegations of theft.

j. The waste collection vehicle shall move slowly in the residential &
commercial areas during the collection process and intermittently stop for a
while to enable the waste collectors to deposit the Waste collected from the
Door to Door Collection into the vehicle.
k. The waste collection staff shall wear the uniform and behave decently with the citizens they serve.

l. The waste collectors shall not demand any charges from the citizens for rendering service unless specifically permitted by the Authority.

m. The Concessionaire shall maintain the fleet of covered vehicles in a good working condition with minimum 20% spare vehicles to maintain the adequacy of the fleet on the road.

2. Door to Door collection through tricycles in inaccessible areas

Concessionaire may divide each inaccessible area into the units of 150 to 250 houses each depending on density of houses and access to roads and lanes. In difficult terrain, average 200 households per private waste collector worker is suggested. One part time worker per unit may be assigned the work of door to door collection of waste every day in the morning between 7am and 11am or any other time that may be convenient to the households. Containerized tricycles may be used as mentioned below:-

a. Part time workers may be deployed in wards by the Concessionaire through RWAs, NGOs or private sector preferably by upgrading the rag pickers or engaging the existing private sweepers working in several colonies and housing areas.

b. Waste collector should have a bell attached to the tricycle or given a whistle. He should ring the bell or blow the whistle announcing his arrival at the place of his work and start collecting the waste from the doorstep. The people may be directed that on hearing the bell, they should come out and hand over their domestic bin/bin to the waste collector or deposit their domestic biodegradable waste as well as recyclable waste into the separate compartment of the handcart of the waste collector.