

Corporation of Chennai

SOLID WASTE MANAGEMENT BYE-LAWS, 2019

In exercise of the powers conferred under sections 3, 6 and 25 of the Environment (Protection) Act, 1986 (Central Act 29 of 1986), the Central Government have made the Solid Waste Management Rules, 2016 to regulate the management of solid waste. The Solid Waste Management Rules, 2016 shall apply to every municipal authority which shall, within their territorial area be responsible for the implementation of the provisions of these rules, and for any infrastructure development for collection, storage, segregation, transportation, processing and disposal of municipal solid wastes. Further, it shall be the responsibility of the generator of wastes to co-operate with the municipal authority concerned to avoid littering and ensure delivery of segregated wastes in accordance with the collection and segregation system as notified under the Solid Waste Management Rules, 2016.

In exercise of the powers conferred under section 349 of the Chennai City Municipal Corporation Act, 1919 (Tamil Nadu Act IV of 1919) and under Rule 15 of the Solid Waste Management Rules, 2016 and in order to ensure effective solid waste management in the Corporation of Chennai, the Council hereby makes the Solid Waste Management Bye-Laws, 2019.

SOLID WASTE MANAGEMENT BYE-LAWS OF THE CORPORATION, FRAMED UNDER SECTION 349 OF THE CHENNAI CITY MUNICIPAL CORPORATION ACT, 1919 (TAMIL NADU ACT IV OF 1919) AND UNDER RULE 15 OF THE SOLID WASTE MANAGEMENT RULES, 2016

- 1.0 Title:** This shall be called as the Corporation of Chennai Solid Waste Management Bye-Laws, 2019
- 2.0 Extent of application:** This bye-law applies to the domestic, institutional, commercial and any other non- residential solid waste generators, situated in the Corporation area, and the public who throw the solid waste in to storm water drain, underground sewerage system, water bodies within the limits of Corporation of Chennai.
- 3.0 Definition:** In this bye-law and the Schedule attached thereto, the words and expressions used but not defined shall have the meanings respectively assigned to them in the Corporation of Chennai, unless the context otherwise requires, -
 - (1) **"Agency"** means any person/entity appointed or authorized by the Corporation of Chennai to act on its behalf, based on an agreement between the Agency and the Corporation of Chennai for discharge of duties or function such as sweeping of streets, collection of waste, collection of user charges, etc.,
 - (2) **"Aerobic composting"** means a controlled process involving microbiological decomposition of organic matter in the presence of oxygen;

- (3) "Anaerobic digestion" means a controlled process involving microbial decomposition of organic matter in the absence of oxygen;
- (4) "Authorization" means the permission given by the State Pollution Control Board or Pollution Control Committee, as the case may be to the operator of a facility or urban local authority, or any other agency responsible for processing and disposal of solid waste;
- (5) "Biodegradable waste" means any organic material that can be degraded by micro-organisms into simpler stable compounds as given in schedule - II
- (6) "Bio-methanation" means a process which entails enzymatic decomposition of the organic matter by microbial action to produce methane rich biogas;
- (7) "Brand owner" means a person or company who sells any commodity under a registered brand label.
- (8) "Bulk waste generator" means and includes buildings occupied by the Central government departments or undertakings, State government departments or undertakings, local bodies, public sector undertakings or private companies, hospitals, nursing homes, schools, colleges, universities, other educational institutions, hostels, hotels, commercial establishments, markets, places of worship, stadia and sports complexes having an average waste generation rate exceeding 100kg per day;
- (9) "Bye-laws" means regulatory framework notified by local body, census town and notified area townships for facilitating the implementation of these rules effectively in their jurisdiction.
- (10) "C and D waste" means construction and demolition waste (Debris) that are non-hazardous in nature generated out of building materials, debris and rubble resulting from repairing, construction, reconstruction operations;
- (11) "Clean Area" means the public place in front and all around or adjacent to any premises extending to the kerb side and including the drain, foot path and kerb;
- (12) "Collection Counter" means where the user charges shall be remitted which will be available at all Zonal Officers and headquarters;
- (13) "Combustible waste" means non-biodegradable, non-recyclable, non-reusable, non-hazardous solid waste having minimum calorific value exceeding 1500 kcal/kg and excluding chlorinated materials like plastic, wood pulp, etc.;
- (14) "Community waste storage bin" means any storage facility set up and maintained by the corporation collectively by owners and or/occupiers of one or more premises for storage of municipal solid waste in a segregated manner in the road side/premises of any one of such owners/occupiers or in their common premises;
- (15) "Composting" means a controlled process involving microbial decomposition of organic matter;

- (16) "Co-processing" means use of non-biodegradable and non-recyclable solid waste having calorific value exceeding 1500k/cal as raw material or as a source of energy or both to replace or supplement the natural mineral resources and fossil fuels in industrial processes;
- (17) "Decentralized processing" means establishment of dispersed facilities for maximizing the processing of biodegradable waste and recovery of recyclables closest to the source of generation so as to minimize transportation of waste for processing or disposal;
- (18) "Disposal" means the final and safe disposal of post processed residual solid waste and inert street sweeping sand silt from surface drains on land to prevent contamination of ground water, surface water, ambient air and attraction of animals or birds;
- (19) "Domestic hazardous waste" means discarded paint drums, pesticide cans, compact fluorescent lamp bulbs, tube lights, expired medicines, broken mercury thermometers, used batteries, used needles and syringes and contaminated gauge, etc., generated at the household level;
- (20) "Door to door collection" means collection of solid waste from the door step of households, shops, commercial establishments, offices, institutional or any other non-residential premises and includes collection of such waste from entry gate or a designated location on the ground floor in a housing society, multi-storied building or apartments, large residential, commercial or institutional complex or premises;
- (21) "Dry waste" means waste other than bio-degradable waste and inert street sweepings and includes recyclable and non-recyclable waste, combustible waste and sanitary napkin and diapers, etc.;
- (22) "Dump sites" means a land utilized by local body for disposal of solid waste without following the principles of sanitary land filling;
- (23) "Event" means any gatherings for the purpose of functions, celebrations, meetings, rallies, processions, open air theatre activities, cinema shootings in public places;
- (24) "Extended producer responsibility" (EPR) means responsibility of any producer of packaging products such as plastic, tin, glass and corrugated boxes, etc., for environmentally sound management, till end-of-life of the packaging products;
- (25) "Facility" means any establishment wherein the solid waste management processes namely segregation, recovery, storage, collection, recycling, processing, treatment or safe disposal are carried out;
- (26) "Familiarization/warning period" means that specific period, during which there is a relaxation in the fines for contravention of these Bye-laws;
- (27) "Fine" means penalty imposed on waste generators or operators of waste processing and disposal facilities under the Bye-laws for non-compliance of the directions contained in these rules and/or Bye-laws;

- (28) "Handling" includes all activities relating to sorting, segregation, material recovery, collection, secondary storage, shredding, baling, crushing, loading, unloading, transportation, processing and disposal of solid wastes;
- (29) "Hazardous waste" means any waste which by reason of any of its physical, chemical, reactive, toxic, causing danger or is likely to cause danger to health or environment, whether alone or when in contact with other wastes or substances and shall include wastes specifically listed in Schedule III, of these Bye-Laws and all other hazardous wastes as defined in the Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016.
- (30) "Horticulture, Parks and Garden waste" means waste from parks, gardens, traffic islands etc. These include grass clippings, annual weeds, woody 'brown' carbon-rich material such as pruning, branches, twigs, wood chipping, straw or dead leaves and tree trimmings, which cannot be accommodated in the daily collection system for bio-degradable waste;
- (31) "House-gully" means a passage or strip of land, constructed, set apart or utilized for the purpose of serving as or carrying a drain or affording access to the latrine, urinal, cesspool or other receptacle for filling or other polluted matter by persons employed in the clearing thereof or in the removal of such matter there from;
- (32) "Incineration" means an engineered process involving burning or combustion of solid waste to thermally degrade waste materials at high temperatures;
- (33) "Inerts" means wastes which are not bio-degradable, recyclable or combustible street sweeping or dust and silt removed from the surface drains;
- (34) "Informal waste collector" means individuals, associations or waste traders whome are involved in sorting, sale and purchase of recyclable materials;
- (35) "Leachate" means the liquid that seeps through solid waste or other medium and has extracts of dissolved or suspended material from it;
- (36) "Litter" means all refuse and include any other waste material which, if thrown or deposited as prohibited under these Bye-laws, tends to create uncleanliness or a danger or nuisance to public health, safety or welfare.
- (37) "Littering" means putting litter in such a location that it falls, descends, blows, is washed, percolates or otherwise escapes or is likely to fall, descend blow, be washed, percolate or otherwise escape into or onto any public place, or causing, permitting or allowing litter to fall, descend, blow, washed, percolate or otherwise escape into or onto any public place;
- (38) "Local body" for the purpose of these Bye-laws means Corporation of Chennai;

- (39) "Materials Recovery Facility" (MRF) means a facility where non-compostable solid waste can be temporarily stored by the local body or any other entity mentioned in rule 2 or any person or agency authorised by any of them to facilitate segregation, sorting and recovery of recyclables from various components of waste by authorised informal sector of waste pickers, informal recyclers or any other work force engaged by the local body or entity mentioned in rule 2 for the purpose before the waste is delivered or taken up for its processing or disposal;
- (40) "Neighbourhood" means a clearly defined locality, with reference to its physical layout, character or inhabitants;
- (41) "New construction" means all buildings under construction within the limits of the Corporation of Chennai;
- (42) "Non-biodegradable waste" means any waste that cannot be degraded by microorganisms into simpler stable compounds;
- (43) "Nuisance" includes any act, omission, place or thing which comes or is likely to cause injury, danger, annoyance or offence to the sense of sight, smelling or hearing or which is or may be dangerous to life or injurious to health or property;
- (44) "Nuisance Detectors" (NDs) means those employees of the Municipal Corporation who are appointed by the Commissioner to detect the acts of public nuisance, etc.;
- (45) "Occupier / occupant" includes any person who for the time being is in occupation of, or otherwise using, any land or building or part thereof, for any purpose whatsoever;
- (46) "Operator of a facility" means a person or entity, who owns or operates a facility for handling solid waste which includes the local body and any other entity or agency appointed by the local body;
- (47) "Owner" means any person who exercises the rights of an owner of any building, or land or part thereof;
- (48) "Primary collection" means collecting, lifting and removal of segregated solid waste from source of its generation including households, shops, offices and any other non-residential premises or from any collection points or any other location specified by the local body;
- (49) "Processing" means any scientific process by which segregated solid waste is handled for the purpose of reuse, recycling or transformation into new products;
- (50) "Public place" includes any road, arch road, viaduct, lane, footway, alley or passage, highway, causeway, bridge, square, alley or passage whether a thoroughfare or not over which the public have a right of passage, and such places to which the public has access such as parks, gardens, recreation grounds, playgrounds, beaches, water bodies, water courses, public plazas and promenades, government and municipal buildings, public hospitals, markets, slaughter houses, courts, etc.;

- (51) "Receptacle" means any storage container, including bins and bags, used for the storage of any category of municipal solid waste;
- (52) "Recycling" means the process of transforming segregated non-biodegradable solid waste into new material or product or as raw material for producing new products which may or may not be similar to the original products;
- (53) "Recyclable Waste" means the waste that is commonly found in the municipal solid waste as given in Schedule - II. It is also called as "Dry Waste". These include many kinds of glass, paper, metal, plastic, textiles, electronics goods, etc.
- (54) "Redevelopment" means rebuilding of old residential or commercial buildings at the same site, where the existing buildings and other infrastructures have become dilapidated;
- (55) "Refuse" means any waste matter generated out of different activities, processes either Bio-degradable/ Non-biodegradable/ recyclable in nature in either solid or semi-solid form which cannot be consumed, used or processed by the generator in its existing form;
- (56) "Refuse derived fuel"(RDF) means fuel derived from combustible waste fraction of solid waste like plastic, wood, pulp or organic waste, other than chlorinated materials, in the form of pellets or fluff produced by drying, shredding, dehydrating and compacting of solid waste;
- (57) "Residual solid waste" means and includes the waste and rejects from the solid waste processing facilities which are not suitable for recycling or further processing;
- (58) "Rule": means Solid Waste Management Rules, 2016;
- (59) "Sanitation" means the promotion of hygiene and the prevention of disease and other consequences of ill health relating to environmental factors;
- (60) "Sanitary landfill facility" means a waste disposal site for the deposit of residual solid waste in a facility designed with protective measures against pollution of ground water, surface water and air fugitive dust, wind-blown litter, bad odour, fire hazard, bird menace, pests or rodents, greenhouse gas emissions, slope instability and erosion;
- (61) "Sanitary land filling " means the final and safe disposal of residual solid waste and inert wastes on land in a facility designed with protective measures against pollution of ground water, surface water and fugitive air dust, wind-blown litter, bad odour, fire hazard, animal menace, bird menace, pests or rodents, greenhouse gas emissions, persistent organic pollutants slope instability and erosion;
- (62) "Sanitary waste" means wastes comprising of used diapers, sanitary towels or napkins, tampons, condoms, incontinence sheets and any other similar waste;

- (63) "Sanitary worker" means a person employed by the municipal corporation for collecting or removing municipal solid waste or cleansing the drains in the municipal / corporation areas;
- (64) "Schedule" means the Schedule appended to these rules;
- (65) "Secondary storage" means the temporary containment of solid waste after collection at secondary waste storage depots or Materials Recovery Facilities (MRF) or bins for onward transportation of the waste to the processing or disposal facility;
- (66) "Segregation" means sorting and separate storage of various components of solid waste namely biodegradable wastes including agriculture and dairy waste, non-biodegradable wastes including recyclable waste, non-recyclable combustible waste, sanitary waste and non-recyclable inert waste, domestic hazardous wastes, and construction and demolition wastes;
- (67) "Service provider" means an authority providing public utility services like water, sewerage, electricity, telephone, roads, drainage, etc.;
- (68) "Solid waste" means and includes solid or semi-solid domestic waste, sanitary waste, commercial waste, institutional waste, catering and market waste and other non-residential wastes, street sweepings, silt removed or collected from the surface drains, horticulture waste, agriculture and dairy waste, treated bio-medical waste, hazardous waste excluding industrial waste, bio-medical waste and e-waste, battery waste, radio-active waste generated in the area under the local authorities and other entities mentioned in rule 2;
- (69) "Sorting" means separating various components and categories of recyclables such as paper, plastic, cardboards, metal, glass, etc., from mixed waste as may be appropriate to facilitate recycling;
- (70) "Source" mean the premises in which the waste is generated or a community storage centre used by owners / occupiers of one or more premises for segregated storage of municipal solid waste;
- (71) "Spittoon" Means a metal or earthenware pot typically having a funnel-shaped top, used for spitting into;
- (72) "Stabilising" means the biological decomposition of biodegradable wastes to a stable state where it generates no leachate or offensive odours and is fit for application to farm land ,soil erosion control and soil remediation;
- (73) "Stabilised biodegradable waste" means the biologically stabilized (free of pathogens) waste resulting from the mechanical/ biological treatment of biodegradable waste; only when stabilised can such waste be used with no further restrictions;
- (74) "Street vendor" means any person engaged in vending of articles, goods, wares, food items or merchandise of everyday use or offering services to the general public, in a street, lane, side walk, footpath, pavement, public park or any other public place or private area, from a temporary built up structure or by moving from place to place and includes hawker, peddler, squatter and all

other synonymous terms which may be local or region specific; and the words "street vending" with their grammatical variations and cognate expressions, shall be construed accordingly;

- (75) "Tipping fee" means a fee or support price determined by the local authorities or any state agency authorised by the State government to be paid to the concessionaire or operator of waste processing facility or for disposal of residual solid waste at the landfill;
- (76) "Transportation" means conveyance of solid waste, either treated, partly treated or untreated from a location to another location in an environmentally sound manner through specially designed and covered transport system so as to prevent the foul odour, littering and unsightly conditions;
- (77) "Transfer station" means a facility created to receive solid waste from collection areas and transport in bulk in covered vehicles or containers to waste processing and, or, disposal facilities;
- (78) "Treatment" means the method, technique or process designed to modify physical, chemical or biological characteristics or composition of any waste so as to reduce its volume and potential to cause harm;
- (79) "User fee" means a fee imposed by the local body on any entity mentioned in rule 2 on the waste generator to cover full or part cost of providing solid waste collection, transportation, processing and disposal services;
- (80) "Vacant Plot" means any Land or open space belonging to a private party/person that is not occupied by them/him
- (81) "Vermi composting" means the process of conversion of biodegradable waste into compost using earthworms;
- (82) "Waste hierarchy" means the priority order in which the solid waste is to should be managed by giving emphasis to prevention, reduction, reuse, recycling, recovery and disposal, with prevention being the most preferred option and the disposal at the landfill being the least;
- (83) "Waste generator" means and includes every person or group of persons, every residential premises and non-residential establishments including Indian Railways, defense establishments, which generate solid waste;
- (84) "Waste picker" means a person or groups of persons informally engaged in collection and recovery of reusable and recyclable solid waste from the source of waste generation the streets, bins, material recovery facilities, processing and waste disposal facilities for sale to recyclers directly or through intermediaries to earn their livelihood.

4.0 Duties of waste generators.-

- (1) Every waste generator shall,-
 - (i) segregate and store the waste generated by them in three separate streams namely biodegradable, 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;
 - (ii) 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- biodegradable waste;
 - (iii) store separately construction and demolition waste, as and when generated, in his own premises and shall dispose off as per the Construction and Demolition Waste Management Rules, 2016; and
 - (iv) store horticulture waste and garden waste generated from his premises separately in his own premises and dispose of as per the directions of the local body from time to time.

- (2) No waste generator shall throw, burn or bury 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.

- (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 wastepickers 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 sq. m. 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 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.

(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.

(9) Not to litter i.e. throw or dispose of any waste such as paper, water bottles, liquor bottle, soft drink canes, tetra packs, fruit peel, wrappers etc., or burn or bury waste on streets, open public spaces, drains, water bodies and to segregate the waste at source as prescribed in the Solid Waste Management Rules, 2016 and hand over the segregated waste to the authorized waste pickers or waste collectors authorized by the local body.

5.0 Responsibilities of the Corporation of Chennai

The Corporation of Chennai shall: -

- (1) 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;

- (2) establish a system to recognize organizations of waste pickers or informal waste collectors and promote and establish a system for integration of these authorized waste-pickers and waste collectors to facilitate their participation in solid waste management including door to door collection of waste;
- (3) facilitate formation of Self Help Groups, provide identity cards and thereafter encourage integration in solid waste management including door to door collection of waste;
- (4) prescribe user fee as in schedule with appropriate revision / modification from time to time and collect the fee along with property tax within 15 days from the date of commencement of half year or payment by waste generators themselves through different means authorized by Corporation of Chennai.
- (5) setup 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 painted white and those for storage of other wastes shall be painted black;
- (6) establish waste deposition centres (at least one number for the area of twenty square kilometers or part thereof and notify the timing) for domestic hazardous waste and give direction for waste generators to deposit domestic hazardous wastes at this centre for its safe disposal.
- (7) provide training on solid waste management to waste-pickers and waste collectors;
- (8) 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.
- (9) 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;

- (10) collect horticulture, parks and garden waste separately and process in the parks and gardens, as far as possible;
- (11) 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;
- (12) transport non-bio-degradable waste to the respective processing facility or material recovery facilities or secondary storage facility;
- (13) transport construction and demolition waste as per the provisions of the Construction and Demolition Waste Management Rules, 2016;
- (14) 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;
- (15) 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;
- (16) facilitate construction, operation and maintenance of solid waste processing facilities and associate 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 Urban Development 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 refused derived fuel for combustible fraction of waste or supply as feedstock to solid waste based power plants or cement kilns;
- (17) undertake on their own or through any other agency construction, operation and maintenance of sanitary landfill and associated infrastructure as per Schedule 1 of Solid Waste Management Rules, 2016 for disposal of residual wastes in a manner prescribed under these rules;

- (18) 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;
- (19) Send the annual report in Form-I to the Secretary, Municipal Administration and Water Supply Department, the Government of Tamil Nadu and State Pollution Control Board by the 30th of June of every year;
- (20) 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;
- (21) ensure that the operator of a facility provides personal protection equipment including uniform, fluorescent jacket, hand gloves, raincoats, appropriate foot wear and masks to all workers handling solid waste and the same are used by the workforce;
- (22) ensure that provisions for setting up of centers 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
- (23) create public awareness through information, education and communication 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 local bodies or any other person authorised by the local body for sustainability of solid waste management.
- (24) stop land filling or dumping of mixed waste soon after the timeline as specified in Bye-law section 5, sub-section 17 for setting up and operationalisation of sanitary landfill is over;
- (25) 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 standard specifications however, every effort shall be made to recycle or reuse the rejects to achieve the desired objective of zero waste going to landfill;
- (26) investigate and analyse all old open dumpsites and existing operational dumpsites for their potential of bio-mining and bio-remediation and where ever feasible, take necessary actions to bio-mine or bio-remediate the sites;
- (27) in the absence of potential for bio-mining and bio-remediation of dumpsite, shall scientifically cap as per landfill capping norms to prevent further damage to the environment.
- (28) make an application in Form-I to be filled up for grant of authorization from the Tamil Nadu Pollution Control Board for setting up of waste processing, treatment or disposal facility as per the provisions of Solid Waste Management Rules, 2016.
- (29) submit application for renewal of authorization atleast sixty days before expiry of the validity of authorization.
- (30) include provisions for collection and treatment of used sanitary waste like diapers, sanitary pads etc., provided in a suitable wrapping materials.
- (31) monitor the environmental parameters as prescribed in Solid Waste Management Rules, 2016 covering compost quality, treated leachate, ground water, ambient air and incineration.
- (32) dispose the biomedical waste in accordance with the bio-medical waste management Rules, 2016 as amended from time to time.
- (33) manage the e-waste in accordance with the e-waste Management Rules, 2016 as amended in time to time.

5.1 Levying Penalties

The powers for levying penalties for non-compliance of Solid Waste Management (SWM) Rules, 2016 as mentioned in Schedule IV of this Bye law is vested with ward level Assistant Engineers and Conservancy Inspectors of Corporation of Chennai.

6.0 Obligatory Responsibilities of Corporation of Chennai

- (1) *Citizen Resource Base:* The designated officer of the Corporation of Chennai will prepare and publish lists of composting experts, licensed scrap dealers, dealers of recyclables, containers/ bin manufacturers, agencies with expertise in recycling, etc. who are registered in the Corporation of Chennai, in order to facilitate and support the citizens in recycling the waste. The name and the telephone number of officials and registered persons/organizations who can provide training, guidance and assistance in respect of this process will be made available. The details will also be made available on the website of Corporation of Chennai.
- (2) *User Charges for Solid Waste Management Services and Trade Refuse Charges:* As per the directions of the Ministry of Urban Development, Government of India, the Corporation of Chennai Council in Resolution No.688/2018, Dated 21.08.2018 has resolved that User Charges for solid waste management services be levied and collected from the general public/generators of waste in order to meet out the Operation and Maintenance costs involved in the solid waste management programme as per the Schedule of Solid Waste Management User Charges (Schedule I). The Corporation of Chennai will also rationalise the Trade Refuse Charges applicable to hotels, restaurants, and other generators of waste, so that it is linked to the Quantum of net waste generated and not to the licence fee charged against any license issued to such a generator of waste. Such information will be available at all the sanitary ward offices and in the website of Corporation of Chennai.
- (3) *Bio-degradable waste generated in places of worship and funeral ceremony:* The designated officer of every sanitary ward will him/herself undertake or will authorise interested organizations to collect bio-degradable wastes such as flowers, leaves, fruits etc., at certain designated sites near water-bodies such as beaches, lakes, ponds, etc. as notified, in special receptacles or "Community waste storage bins". The collection from such receptacles will then be composted at a suitable location, and the receptacles as well as the composting units will be manned specifically for this purpose.
- (4) *Time schedule and route of collection:* The daily and weekly time schedules and routes of Corporation's collection of different types of municipal solid waste such as i) biodegradable, ii) recyclable and non-recyclable (dry) and iii) household domestic hazardous, will be fixed and notified in advance by the Commissioner. Details will be available at all ward offices and in the Corporations' website. Similarly, the arrangements for the collection of construction and

demolition waste, and garden and horticulture waste will be made available by the corporation or its authorised agencies to the public as well as to the bulk generators of waste through the Project Engineer, the concerned Officer in-charge.

- (5) Surprise checks: The Commissioner or any other officer authorised by the Commissioner will conduct surprise checks in various parts of the wards in the corporation limits at any time (day or night) with a view to encourage compliance. Any contravention will attract a fine and any litter found during these checks will be cleared by the Corporation.*
- (6) Enforcement Squads in each ward: The Commissioner will appoint Nuisance Detectors and form Enforcement Squad for solid waste management services. The designated officer will supervise the Nuisance Detectors and Enforcement Squads.*
- (7) Publicity: Citizen Information services, the corporation shall publicize the provision of the Bye-laws through the media of Signs, advertisement, leaflets, announcement on radio and televisions, newspapers articles and through any other appropriate means, so that all citizens will have the opportunity to become informed about their legal duties and about corporation's recycling, refuse and anti-litter services and fines.*
- (8) Coordination with Government Bodies: The Corporation shall coordinate with other government agencies and authorities, to ensure compliance of these Bye-laws within areas under the jurisdiction or control of such bodies.*
- (9) The Commissioners/ designated officers will extend the Slum Adoption Program to the uncovered areas within their wards for Solid Waste Management, with the possible assistance of qualified Community Based Organisations (CBOs)/non-government organisations(NGO's)/voluntary service organisations(VSO's)/ Self Help Groups(SHG).*
- (10) Cleanliness drives will be conducted by the Corporation in association with Ward Councillors, Citizens organizations, Government bodies, Corporates, NGO's for the cleanliness of areas inside the slums, from time to time, in association with CBOs participating in the Slum Adoption Program.*

7.0 Slaughter houses and Mutton, Fish market waste:

- (1) Every owner/occupier of any premises other than designated slaughter houses and markets, who generates poultry, fish and slaughter waste as a result of any commercial activity, shall store the same separately in closed, hygienic condition and deliver it at a specified time, on a daily basis to the corporation collection vehicle provided for this purpose. Depositing of such waste in any community waste bin is prohibited and will attract fines as indicated in the schedule of Fines.*
- (2) Vendor/Hawkers: All vendors/hawkers shall keep their bio-degradable and other waste unmixed in containers / bins at the site of vending for the collection of any waste generated by that*

vending activity. It will be the responsibility of the generator/vendor to deliver this waste duly segregated to the containerised hand cart of the corporation or to the nearest designated community waste storage bin. Failure to do so will attract fines as per the Schedule of Fines. Each Vendor/hawker will be responsible to maintain 'Clean Area' within their surroundings.

- (3) *House-gullies*: It will be the responsibility of the owner/occupier of his/their premises with house-gullies to ensure that no waste is dumped in the house-gully, and to segregate and deliver any municipal solid waste to the waste collection vehicle which shall be provided by the corporation/agency at such spots and at such times as may be notified by the corporation. Failure to do so will attract a fine as per the Schedule of Fines.
- (4) *Litter by owned/pet animals*: It shall be the responsibility of the owner of any pet animal to promptly scoop/clean up any litter created by pet animals on the street or any public place, and take adequate steps for the proper disposal of such waste possibly by their own sewage system. Failure to do so will attract fines as per the Schedule of Fines.

8.0 Penalties for contravention of these Bye-laws

- (1) On and after the date of commencement of these Bye-laws, there will be a familiarization/warning period of 30 days, after which, any contravention of these Bye-laws shall be punishable with fines as per the Schedule of Fines (Schedule IV) for every instance of breach of these Bye-laws. In case the generator of waste is found contravening any of these Bye-laws next time, the fine amount will be doubled.
- (2) In case of a person or any polluter is not able to pay the fine as mentioned in Schedule, while contravening any of these Bye-laws he/she will be prosecuted under the provisions made in City Police Act and District Police Act / Indian Penal Code.

9.0 Punishments:

Any person violating the provisions made in the Bye-laws or any person who is the custodian of a child aged less than 14 years, violates the provisions made in the Bye-laws will be punishable as per the rules in force.

10.0 Right to Appeal:

Any person aggrieved or affected by this Corporation of Chennai Solid Waste Management Bye-laws, 2019 shall have the right to appeal before the Commissioner of Corporation of Chennai within 30 days. Bye-laws will take effect after the due approval of the Corporation of Chennai Council.

11.0 Jurisdiction of Courts:

For filing cases against the Bye-laws, the jurisdiction is Chennai only.

Schedule- I
Solid Waste Management User Charges
(See bye-law 6(2))

Sl. No	Institutions generating Solid Waste	For 1 Event or For 1 Month as	User fee (Rs)
(1)	(2)	(3)	(4)
I. Residential			
(1)	Built up area up to 500 Sq. Ft.	for 1 month	10.00
(2)	Built up area above 500 - up to 1200 Sq. Ft.	for 1 month	25.00
(3)	Built up area above 1200 – up to 2400 Sq. Ft.	for 1 month	50.00
(4)	Built up area above 2400 Sq. Ft.	for 1 month	100.00
II. Commercial			
A. Kalyana Mandapam / Wedding Hall			
1	Kalyana Mandapam / Wedding Hall		
	a. Generation of solid waste up to 1000kg	for 1 month	10000.00
	b. Generation of solid waste above 1000kg	for 1 month	15000.00
2	Public and private community centre	for 1 month	1000.00
B. Hotels			
1	Posh hotels / lodges (All star hotels fall in this category)		
	a. Up to 1000 kg/day solid waste generation (avg)	for 1 month	3000.00
	b. Above 1000 kg/day solid waste generation (avg)	for 1 month	5000.00
2	' A' Class hotels / lodges (Non-star hotels / lodges situated in posh localities)		
	a. Up to 1000 kg/day solid waste generation (avg)	for 1 month	1000.00
	b. Above 1000 kg/day solid waste generation (avg)	for 1 month	3000.00
3	All other hotels / lodges		
	a. Up to 1000 kg/day solid waste generation (avg)	for 1 month	300.00
	b. Above 1000 kg/day solid waste generation (avg)	for 1 month	500.00

C. Theatres			
1	'A' class cinema theatres for one screen	for 1 month	3000.00
	Every additional screen	for 1 month	1500.00
2	'B' class cinema theatres for one screen	for 1 month	2000.00
	Every additional screen	for 1 month	1000.00
D. Offices			
1	Government and private office premises (less than 1000 Sq. Ft. area)	for 1 month	300.00
2	Government and private office premises / complexes (1000-5000 Sq. Ft. area)	for 1 month	1000.00
3	Government and private office premises / complexes (above 5000 Sq. Ft. area)	for 1 month	3000.00
E. Trade License Fee Categories			
1	For Trade Names as per Corporation of Chennai Revenue Department – Bakery, Biscuit Stall, Chicken Stall, Coconut Shop, Juice Stall, Milk Depot, Sea foods, Tea Stall, Tea Stall with AMF, Vegetable and Fruit Sales		
	a. Up to 500 Sq. Ft.	for 1 month	200.00
	b. Above 500 - up to 1000 Sq. Ft.	for 1 month	300.00
	c. Above 1000 Sq. Ft.	for 1 month	500.00
2	For Trade Names as per Corporation of Chennai Revenue Department – Canteen, Coffee and Meals Hotel, Eating House, Fast Food, Meals Hotel, Military Hotel, Restaurant, Snack Bar, Tea and Tiffin		
	a. Up to 500 Sq. Ft.	for 1 month	300.00
	b. Above 500 - up to 1000 Sq. Ft.	for 1 month	500.00
	c. Above 1000 Sq. Ft.	for 1 month	1000.00
3	All Other Trade Names as per Corporation of Chennai Revenue Department		
	a. Up to 1000 Sq. Ft.	for 1 month	200.00
	b. Above 1000 Sq. Ft.	for 1 month	500.00
III. Events* (functions, celebrations, processions) in Open Public Spaces			
1	Up to 500 persons	for 1 event	5000.00
2	501 - 1000 persons	for 1 event	10000.00
3	More than 1000 persons	for 1 event	20000.00

IV. Nursing Home / Hospital (for Non Bio – Medical Waste only)			
1	Bedded Hospital		
	a. Up to 50 Beds	for 1 month	2000.00
	b. 51 – 250 Beds	for 1 month	3000.00
	c. 251 – 500 Beds	for 1 month	4000.00
2	Non-Bedded Hospital		
	a. Clinics	for 1 month	1000.00
	b. Nursing Homes	for 1 month	1000.00
	c. Blood Banks	for 1 month	500.00
	d. Scan Centres/Diagnostic Labs	for 1 month	2000.00
V. Institutional			
1	Private schools without hostel	for 1 month	500.00
2	Private schools with hostel	for 1 month	1500.00
3	Private and Government colleges s	for 1 month	3000.00
VI. Other			
1	Places of worship (Religious)	for 1 month	500.00
2	Others (not included above)		
	a. Up to 1000 Sq. Ft.	for 1 month	200.00
	b. Above 1000 Sq. Ft.	for 1 month	500.00
VII. Other Waste			
1	Tree trunk waste, nursery and horticulture waste	up to 1 ton per trip	500.00
		above 1 ton per trip	1000.00
2	Construction and demolition waste	up to 1 ton per trip	500.00
		above 1 ton per trip	3000.00

*** Events (functions, celebrations, processions) in Open Public Spaces excluding funerals and its related gatherings, as well as Information, Education and Communication (IEC) activities by school children organized by Government or its agencies**

Schedule-II
Illustrative list of biodegradable and recyclable waste
(see bye-law 3(5) and 3(53))

Biodegradable Waste	Recyclable waste
<p>“Bio-degradable waste” means the organic waste a part of municipal solid waste. They are also called as “Wet Waste”. The Biodegradable waste is a type of waste, typically originating from plant or animal sources, which may be degraded by other living organisms.</p>	<p>“Recyclable Waste” means the waste that is commonly found in the MUNICIPAL SOLID WASTE. They are also called as “Dry Waste”. These can be transformed through a process into raw materials for producing new products, which may or may not be similar to the original products.</p>
<ul style="list-style-type: none"> • Kitchen Waste including: tea leaves, egg shells, fruit, vegetable peels and left over • Meat and bones • Garden and leaf litter including flowers • Animal litter • Soiled paper • House sweeping dust • Coconut shells • Ashes 	<ul style="list-style-type: none"> • Newspapers • Paper, books and magazines • Glass • Metal objects and wire • Plastic • Cloth Rags • Leather • Rexene • Rubber • Wood /furniture • Packaging materials

Schedule-III
Illustrative List of Hazardous Waste
(see bye-law 3(19) & 3(29))

- Aerosol cans
- Batteries from flashlights and button cells
- Bleaches and household kitchen and drain cleaning Agents and its containers.
- Car batteries, oil filters and car care products and consumables
- Chemicals and solvents and their containers
- Cosmetic items, chemical-based Insecticides and their containers
- Light bulbs, tube-lights and compact fluorescent lamps (CFL)
- Discarded Medicines and its containers,
- Paints, oils, lubricants, glues, thinners, and their containers
- Pesticides and herbicides and their empty containers
- Photographic audio/video tapes and their containers, chemicals
- Styrofoam and soft foam packaging of furniture, packaging and equipment
- Thermometers and mercury-containing products
- e-waste such as personal computers, telephones, MP3 players, audio equipment, televisions, calculators, GPS automotive electronics, digital cameras and players and recorders using video media such as DVDs, VCRs or camcorders

Schedule - IV**Penalties****(see bye-law 5.1 and 8)**

S.No	Sub section/Details of section rules	Penalty amount (Rs.)
(1)	(2)	(3)
1	Throwing garbage in public and private place / littering from vehicles	500.00
2	Category under Non Segregation of waste	
	A. Individual House Holds	100.00
	B. Apartments / group house holds	1000.00
	C. Bulk waste generator	5000.00
3	Unauthorised dumping of Construction and Demolition waste in all public places	
	A. Up to 1 ton	2000.00
	B. 1 ton and above	5000.00
4	Horticulture , Wood waste not properly dumped at public place	200.00
5	Littering around bin / littering in sewer / canal / water bodies	500.00
6	Burning of solid waste	
	A. Private premises	500.00
	B. Public places	1000.00
	C. Burning of solid waste generated from commercial places	2000.00
7	Fish, pet birds, meat waste (not from households) handing over without segregation	1000.00
8	Vendors /Hawkers/Shopkeepers without bin / garbage basket	100.00
9	Vendors / Hawkens handing over without segregation	200.00
10	Unless a place not kept clean within 12 hrs after a public gathering/ public program events irrespective of number of persons	5000.00

Form - I (See bye-law 5(19)) Format for annual report on Solid Waste Management Rules, 2016		
CALENDAR YEAR:		DATE OF SUBMISSION OF REPORT
1	Name of the City/Town and State	
2	Population:	
3	Area in sq. Kilometers	
4	Name & Address of local body	
	Telephone No.	
	Fax No.	
	E.mail:	
5	Name of officer in- charge dealing with solid waste management Phone No:	
	Fax No.	
	E.mail:	
6	Number of households in the city /town	
	Number of non -residential premises in the city	
	Number of election /administrative wards in the city/ town	
7	Quantity of solid Waste	
	Estimated Quantity of solid Waste generated in the local body area per day in metric tones	/tpd
	Quantity of solid waste collected per day	/tpd
	Per capita waste collected per day	/gm/day
	Quantity of solid waste processed	/tpd
	Quantity of solid waste disposed at dumpsite/ landfill	/tpd
8	Status of solid waste management service	
	Segregation and storage of waste at source	
	Whether SOLID WASTE is stored at source in domestic /commercial/ institutional bins, If yes.	Yes/No
	Percentage of household practice storage of waste at source in domestic bins	%

Percentage of non-residential premises practice storage of waste at source in commercial/institutional bins	%				
Percentage of households dispose or throw solid waste on the streets	%				
Percentage of non-residential premise dispose or throw solid waste on the streets	%				
Whether solid waste is stored at source in segregated form ,If yes.	Yes/No				
Percentage of premises segregating the waste at source	%				
Door to Door Collection of solid waste					
Whether door to door collection (D2D)of solid waste is being done in the city/town	Yes/No				
if yes					
Number of wards covered in D2D collection of waste					
No. of households covered					
No .of non-residential premises including commercial establishments, Hotels, Restaurants, Educational Institutions /Offices etc covered					
Percentage of residential and non-residential premises covered in door to door collection through:					
Motorized vehicle	%				
Containerized tricycle / Handcart	%				
Other device	%				
If not, Method of primary collection adopted					
Sweeping of streets					
Length of roads, streets, lanes, By-lanes in the city that need to be cleaned	km				
Frequency of street sweepings and percentage of population covered	Frequency	Daily	Alter nate days	Twice a week	Occas onally
	% of popul ation cover ed				
Tools used					

Manual sweeping	%
Mechanical sweeping	%
Whether long handle broom used by sanitation workers	Yes/No
Whether each sanitation worker is given handcart/tricycle for collection of waste	Yes/No
Whether hand cart/tricycle is containerized	Yes/No
Whether the collection tool synchronizes with collection / waste storage containers utilized.	Yes/No
Secondary Waste Storage facilities	
No. and type of waste storage depots in the city/town	No. Capacity in m ³
Open waste storage sites	
Masonry bins	
Cement concrete cylinder bins	
Dhalao /covered rooms/space	
Covered metal/ plastic containers	
1) Up to 1.1m ³ bins	
2) 2 to 5m ³ bins	
3) Above 5m ³ containers	
Bin-less city	
Bin/population ratio	
Ward wise details of waste storage depots(attach):	
Ward No:	
Area:	
Population:	
No. of bins placed	
Total volume of bins placed	
Total storage capacity of waste storage facilities in cubic meters	
Total Waste actually stored at the waste storage depots daily	

	Give frequency of collection of waste from the depots. Number of bins cleared	Frequency	No. of bins
		Daily	
		Alternate day	
		Twice a week	
		Once a week	
Occasionally			
	Whether storage depots have facility for storage of segregated waste in green, blue and black bins	Yes/no (if Yes, add details)	
		No. of green bins:	
		No. of blue bins:	
No. of black bins:			
	Whether lifting of solid waste from storage depots is manual or mechanical, give percentage		
	(%) of manual Lifting of solid waste	%	
	(%) of mechanical lifting	%	
	If mechanical-specify the method used	front-end loaders / Top loaders	
	Whether solid waste is lifted from door to door and transported to treatment plant directly in a segregated form	Yes / No (If Yes, specify)	
	Waste transportation per day Type and Number of Vehicles used	No. of Trips made	Waste transported
	Animal cart		
	Tractors		
	Non tipping Truck		
	Tipping Truck		
	Dumper placers		
	Refuse collectors		
	Compactors		
	Others		
	JCB/Loader		

Frequency of transportation of waste	Frequency transported	% of waste
	Daily	
	Alternate day	
	Twice a week	
	Once a week	
	Occasionally	
Quantity of waste transported each day	/tpd	
Percentage of total waste transported daily	%	
Waste Treatment Technologies used		
Whether solid waste is processed	Yes / No	
If yes, Quantity of waste processed daily	/tpd	
Whether treatment is done by local body or through an agency		
Land (s) available with the local body for waste processing (in Hectares)		
Land currently utilized for waste processing		
Solid waste processing facilities in operation		
Solid waste processing facilities under construction		
Distance of processing facilities from city/ town boundary		
Details of technologies adopted Composting,	1.Qty. raw material processed 2.Qty. final product produced 3.Qty. sold 4.Quantity of residual waste to landfill	
Vermi composting	1.Qty. raw material processed 2.Qty. final product produced 3.Qty. sold 4.Quantity of residual waste to landfill	
Bio- methanation	1.Qty. raw material processed 2.Qty. final product produced 3.Qty. sold 4.Quantity of residual waste to landfill	

Refuse Derived fuel	1.Qty. raw material processed 2.Qty. final product produced 3.Qty. sold 4.Quantity of residual waste to landfill
Waste to Energy technology such as incineration, gasification, pyrolysis or any other technology(give details)	1.Qty. raw material processed 2.Qty. final product produced 3.Qty. sold 4.Quantity of residual waste to landfill
Co-processing	Qty. raw material processed
Combustible waste supplied to Cement plant	
Combustible waste supplied to solid waste based power plants	
Others	Qty.
Solid waste disposal facilities	
No.of dumpsites sites available with the local body	
No.of sanitary Landfill sites available with the body	
Area of each such sites available for waste disposal	
Area of Land currently used for waste disposal	
Distance of dumpsites/ landfill facility from city/town	Kms
Distance from the nearest habitation	Kms
Distance from water body	Kms
Distance from state /national highway	kms
Distance from Airport	kms
Distance from important religious place or historical monument	kms
Whether it falls in flood prone area	Yes / No
Whether it falls in earthquake fault line area	Yes / No
Quantity of waste land filled each day	/tpd
Whether Landfill site is fenced	Yes / No
Whether Lighting facility is available on site	Yes / No

	Whether Weigh bridge facility available	Yes / No
	Vehicle and equipments used at land fill(specify)	Bulldozer, Compactors etc. available
	Manpower deployed at land fill site	Yes / No (if yes, attach details)
	Whether covering is done on daily basis	Yes / No
	If not, Frequency of covering the waste deposited at the landfill	
	Cover material used	
	Whether adequate covering material is available	Yes / No
	Provisions for gas venting provided	Yes / No (if yes, attach technical data sheet)
	Provisions for Leachate collection	Yes / No (if yes, attach technical data sheet)
9	Whether an Action has been prepared for improving solid waste management Practices in the city	Yes / No (if yes, attach Action Plan details)
10	What separate provisions are made for:	Attach details on Proposals, Steps taken,
	Dairy related activities:	Yes / No
	Slaughter house waste:	Yes / No
	C&D waste (construction debris):	Yes / No
11	Details of Post Closure plan	Attach Plan
12	How many slums are identified and whether these are provided with Solid Waste management facilities:	Yes / No (if Yes, attach details)
13	Give details of: Local body's own manpower deployed for collection including street sweeping, secondary storage, transportation, processing and disposal of waste	

14	Give details of: Contractor/ concessionaire's manpower deployed for collection including street sweeping, secondary storage, transportation, processing and disposal of waste	
15	Mention briefly the difficulties being experienced by the local body in complying with provisions of these rules	
16	Mention briefly if any innovative idea is implemented to tackle a problem related to solid waste, which could be replicated by other local bodies	

**HARMANDER SINGH
ADDITIONAL CHIEF SECRETARY TO GOVERNMENT**

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Section Officer