

Compendium
on
Waste Management Rules, Guideline and
Directions of Hon'ble National Green
Tribunal
for
Urban West Bengal

August 2019

Prepared by
State Urban Development Agency
Urban Development & Municipal Affairs Department
Government of West Bengal

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भारत का राजपत्र The Gazette of India

असाधारण

EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)

PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित

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पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 8 अप्रैल, 2016

का.आ. 1357(अ).—ठोस अपशिष्ट प्रबंधन नियम, 2015 का प्रारूप भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की अधिसूचना सं. सा.का.नि.451 (अ) तारीख 3 जून, 2015 को भारत के राजपत्र भाग II, खंड-3, उप खंड (i) में उसी तारीख को प्रकाशित किए गए थे, जिसमें उनसे प्रभावित होने वाले संभावित व्यक्तियों से नगरीय ठोस अपशिष्ट (प्रबंधन और हथालन) नियम 2000 को अधिक्रांत करते हुए उक्त अधिसूचना के द्वारा ठोस अपशिष्ट प्रबंधन नियम, 2015 के प्रकाशन की तारीख से साठ दिनों की अवधि की समाप्ति से पूर्व आक्षेप और सुझाव आमंत्रित किए थे।

उक्त राजपत्र की प्रतियां जनता को तारीख 3 जून, 2015 को उपलब्ध कराई गई थीं;

निर्धारित अवधि के भीतर उक्त प्रारूप नियमों पर प्राप्त आपत्तियों तथा टिप्पणियों पर केन्द्र सरकार द्वारा सम्यक रूप से विचार किया गया था;

पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3, 6 और 25 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए और नगरीय ठोस अपशिष्ट (प्रबंधन और हथालन) नियम, 2000, उन बातों के सिवाय अधिक्रांत करते हुए जिन्हें ऐसे अधिक्रमणों से पहले किया गया है या किए जाने का लोप किया गया है, केन्द्रीय सरकार ठोस अपशिष्टों का प्रबंधन करने के लिए निम्नलिखित नियम बनाती है अर्थात् :

1. संक्षिप्त नाम और प्रारंभ.—

- (1) इन नियमों का संक्षिप्त नाम ठोस अपशिष्ट प्रबंधन नियम, 2016 है।
- (2) ये राजपत्र में इनके प्रकाशन की तारीख से प्रवृत्त होंगे।

नगरपालिकाओं की कुल संख्या:

प्रस्तुत की गई कार्य योजना की संख्या:

प्ररूप-VI

[नियम 25 देखें]

दुर्घटना का प्रतिवेदन

1.	दुर्घटना की तारीख और समय	:	
2.	दुर्घटना के लिए कारकों का अनुक्रम	:	
3.	दुर्घटना में शामिल अपशिष्ट	:	
4.	मानव स्वास्थ्य और पर्यावरण पर दुर्घटनाओं के प्रभावों का मूल्यांकन	:	
5.	किए गए आपातकालीन उपाय	:	
6.	दुर्घटनाओं के प्रभावों को कम करने के लिए उठाए गए कदम	:	
7.	ऐसी किसी दुर्घटना की पुनरावृत्ति को रोकने के लिए उठाए गए कदम	:	
तारीख			हस्ताक्षर
स्थान			पदनाम

[फा. सं.18-3/2004-एचएसएमडी]

विश्वनाथ सिन्हा, संयुक्त सचिव

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 8th April, 2016

S.O. 1357(E).—Whereas the draft of the Solid Waste Management Rules, 2015 were published under the notification of the Government of India in the Ministry of Environment, Forest and Climate Change number G.S.R. 451 (E), dated the 3rd June, 2015 in the Gazette of India, part II, Section 3, sub-section (i) of the same date inviting objections or suggestions from the persons likely to be affected thereby, before the expiry of the period of sixty days from the publication of the said notification on the Solid Waste Management Rules, 2015 in supersession of the Municipal Solid Waste (Management and Handling) Rules, 2000;

And whereas, copies of the said Gazette were made available to the public on the 3rd June, 2015;

And whereas, the objections or comments received within the stipulated period were duly considered by the Central Government;

Now, therefore, in exercise of the powers conferred by sections 3, 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986) and in supersession of the Municipal Solid Waste (Management and Handling) Rules, 2000, except as respect things done or omitted to be done before such supersession, the Central Government hereby makes the following rules for management of Solid Waste, namely:-

1. **Short title and commencement.-**

- (1) These rules may be called the Solid Waste Management Rules, 2016.
- (2) They shall come into force on the date of their publication in the Official Gazette.

2. **Application.-** These rules shall apply to every urban local body, outgrowths in urban agglomerations, census towns as declared by the Registrar General and Census Commissioner of India, 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, religious and 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 except industrial waste, hazardous waste, hazardous chemicals, bio medical wastes, e-waste, lead acid batteries and radio-active waste, that are covered under separate rules framed under the Environment (Protection) Act, 1986.

3. **Definitions** —(1) In these rules, unless the context otherwise requires,- (1) **"aerobic composting"** means a controlled process involving microbial decomposition of organic matter in the presence of oxygen;

2. **"anaerobic digestion"** means a controlled process involving microbial decomposition of organic matter in absence of oxygen;
3. **"authorisation"** 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;
4. **"biodegradable waste "** means any organic material that can be degraded by micro-organisms into simpler stable compounds;
5. **"bio-methanation"** means a process which entails enzymatic decomposition of the organic matter by microbial action to produce methane rich biogas;
6. **"brand owner"** means a person or company who sells any commodity under a registered brand label.
7. **"buffer zone"** means zone of no development to be maintained around solid waste processing and disposal facility, exceeding 5 TPD of installed capacity. This will be maintained within total area allotted for the solid waste processing and disposal facility.
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. **"census town"** means an urban area as defined by the Registrar General and Census Commissioner of India;
11. **"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;
12. **"composting"** means a controlled process involving microbial decomposition of organic matter;
13. **"contractor"** means a person or firm that undertakes a contract to provide materials or labour to perform a service or do a job for service providing authority;
14. **"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;
15. **"decentralised 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;
16. **"disposal"** means the final and safe disposal of post processed residual solid waste and inert street sweepings and silt from surface drains on land as specified in Schedule I to prevent contamination of ground water, surface water, ambient air and attraction of animals or birds;
17. **"domestic hazardous waste"** means discarded paint drums, pesticide cans, CFL bulbs, tube lights, expired medicines, broken mercury thermometers, used batteries, used needles and syringes and contaminated gauge, etc., generated at the household level;

18. **"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;
19. **"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;
20. **"dump sites"** means a land utilised by local body for disposal of solid waste without following the principles of sanitary land filling;
21. **"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;
22. **"facility"** means any establishment wherein the solid waste management processes namely segregation, recovery, storage, collection, recycling, processing, treatment or safe disposal are carried out;
23. **"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
24. **"Form"** means a F8orm appended to these rules;
25. **"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;
26. **"inerts"** means wastes which are not bio-degradable, recyclable or combustible street sweeping or dust and silt removed from the surface drains;
27. **"incineration"** means an engineered process involving burning or combustion of solid waste to thermally degrade waste materials at high temperatures;
28. **"informal waste collector"** includes individuals, associations or waste traders who are involved in sorting, sale and purchase of recyclable materials;
29. **"leachate"** means the liquid that seeps through solid waste or other medium and has extracts of dissolved or suspended material from it;
30. **"local body"** for the purpose of these rules means and includes the municipal corporation, nagar nigam, municipal council, nagarpalika, nagar Palikaparishad, municipal board, nagar panchayat and town panchayat, census towns, notified areas and notified industrial townships with whatever name they are called in different States and union territories in India;
31. **"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;
32. **"non-biodegradable waste"** means any waste that cannot be degraded by micro organisms into simpler stable compounds;
33. **"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;
34. **"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;
35. **"processing"** means any scientific process by which segregated solid waste is handled for the purpose of reuse, recycling or transformation into new products;
36. **"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;
37. **"redevelopment"** means rebuilding of old residential or commercial buildings at the same site, where the existing buildings and other infrastructures have become dilapidated;

38. **"refused 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 ;
39. **"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;
40. **"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;
41. **"sanitary waste"** means wastes comprising of used diapers, sanitary towels or napkins, tampons, condoms, incontinence sheets and any other similar waste;
42. **"Schedule"** means the Schedule appended to these rules;
43. **"secondary storage"** means the temporary containment of solid waste after collection at secondary waste storage depots or MRFs or bins for onward transportation of the waste to the processing or disposal facility;
44. **"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;
45. **"service provider"** means an authority providing public utility services like water, sewerage, electricity, telephone, roads, drainage, etc;
46. **"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 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;
47. **"sorting"** means separating various components and categories of recyclables such as paper, plastic, card-boards, metal, glass, etc., from mixed waste as may be appropriate to facilitate recycling;
48. **"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;
49. **"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;
50. **"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;
51. **"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;
52. **"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;
53. **"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;
54. **"user fee"** means a fee imposed by the local body and 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.
55. **"vermi composting"** means the process of conversion of bio-degradable waste into compost using earth worms;
56. **"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;
57. **"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;

58. “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.

(2) Words and expressions used herein but not defined, but defined in the Environment (Protection) Act, 1986, the Water (Prevention and Control of Pollution) Act, 1974, Water (Prevention and Control of Pollution) Cess Act, 1977 and the Air (Prevention and Control of Pollution) Act, 1981 shall have the same meaning as assigned to them in the respective Acts.

4 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 bio-degradable 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 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 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 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 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.

5. Duties of Ministry of Environment, Forest and Climate Change.- (1) The Ministry of Environment, Forest and Climate Change shall be responsible for over all monitoring 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 namely,-

- 1) Ministry of Urban Development
- 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.

6. Duties of Ministry of Urban Development.- (1) The Ministry of Urban Development 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.

7. Duties of Department of Fertilisers, Ministry of Chemicals and Fertilisers.- (1) The Department of Fertilisers through appropriate mechanisms shall,-

- (a) provide market development assistance on city compost; and
- (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.

8. Duties of Ministry of Agriculture, Government of India.- The Ministry of Agriculture 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.

9. 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.

10. Duties of Ministry of New and Renewable Energy Sources.- The Ministry of New and Renewable Energy Sources 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.

11. Duties of the Secretary-in-charge, Urban Development in the States and Union territories.- (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.

12. 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 rules 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.

13. Duties of the Secretary-in-charge of Village Panchayats or Rural Development Department in the State and Union territory.- (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.

14. 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.

15. 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 cans, tetra packs, fruit peel, wrappers, etc., or burn or bury 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) 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 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 kilometers 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 collectors;
- (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 on site 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 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;
- (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 foot wear and masks to all workers handling solid waste and the same are used by the workforce;
- (ze) 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
- (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 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 23 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 wheresoever 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.

16. 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.
- 17. 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.
- 18. Duties of the industrial units located within one hundred km from the refused 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 refused 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 refused derived fuel so produced.
- 19. Criteria for Duties regarding setting-up solid waste processing and 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 set up 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 Urban Development.

- (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 Municipal Solid Waste Management published by the Ministry of Urban Development 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.

20. 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 cans, 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.

21. 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.

22. Time frame for implementation.- Necessary infrastructure for implementation of these rules shall be created by the local bodies and other concerned authorities, as the case may be, on their own, by directly or engaging agencies within the time frame specified below:

Sl. No.	Activity	Time limit from the date of notification of rules
(1)	(2)	(3)
1.	identification of suitable sites for setting up solid waste processing facilities	1 year

2.	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 .	1 year
3.	procurement of suitable sites for setting up solid waste processing facility and sanitary landfill facilities	2 years
4.	enforcing waste generators to practice segregation of bio degradable, recyclable, combustible, sanitary waste domestic hazardous and inert solid wastes at source ,	2 years
5.	Ensure door to door collection of segregated waste and its transportation in covered vehicles to processing or disposal facilities.	2 years
6.	ensure separate storage, collection and transportation of construction and demolition wastes	2 years
7.	setting up solid waste processing facilities by all local bodies having 100000 or more population	2 years
8.	Setting up solid waste processing facilities by local bodies and census towns below 100000 population.	3 years
9	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 untreatable inert wastes as permitted under the Rules	3 years
10.	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	3years
11.	bio-remediation or capping of old and abandoned dump sites	5years

23. 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:-

Sl. No	Designation	Member
(1)	(2)	(3)
1.	Secretary, Department of Urban Development or Local self government department of the State	Chairperson, ex-officio
2.	One representative of Panchayats or Rural development Department not below the rank of Joint Secretary to State Government	Member, ex-officio
3.	one representative of Revenue Department of State Government	Member, ex-officio
4.	One representative from Ministry of Environment, Forest and Climate Change Government of India	Member, ex-officio

5.	One representative from Ministry of Urban Development, Government of India	Member, ex-officio
6.	One representative from Ministry of Rural Development, Government of India	Member, ex-officio
7.	One representative from the Central Pollution Control Board	Member, ex-officio
8.	One representative from the State Pollution Control Board or Pollution Control Committee	Member, ex-officio
9.	One representative from Indian Institute of Technology or National Institute of Technology	Member, Ex-officio
10.	Chief town planner of the state	Member
11.	Three representatives from the local bodies by rotation	Member
12.	Two representatives from census towns or urban agglomerations by rotation.	Member
13.	One representative from reputed Non-Governmental Organisation or Civil Society working for the waste pickers or informal recycler or solid waste management	Member
14.	One representative from a body representing Industries at the State or Central level	Member
15.	one representative from waste recycling industry	member
16.	Two subject experts	Member
17.	Co-opt one representative each from agriculture department, and labour department of State Government.	Member

(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.

24. 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 31st day 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.

25. 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.

SCHEDULE I

[see rule 15 (w),(zi), 16 (1) (b) (e), 16 (4)]

Specifications for Sanitary Landfills

(A) Criteria for site selection.-

- (i) The department in the business allocation of land assignment shall provide suitable site for setting up of the solid waste processing and treatment facilities and notify such sites.
- (ii) The sanitary landfill site shall be planned, designed and developed with proper documentation of construction plan as well as a closure plan in a phased manner. In case a new landfill facility is being established adjoining an existing landfill site, the closure plan of existing landfill should form a part of the proposal of such new landfill.
- (iii) The landfill sites shall be selected to make use of nearby wastes processing facilities. Otherwise, wastes processing facility shall be planned as an integral part of the landfill site.
- (iv) Landfill sites shall be set up as per the guidelines of the Ministry of Urban Development, Government of India and Central Pollution Control Board.
- (v) The existing landfill sites which are in use for more than five years shall be improved in accordance with the specifications given in this Schedule.
- (vi) The landfill site shall be large enough to last for at least 20-25 years and shall develop 'landfill cells' in a phased manner to avoid water logging and misuse.
- (vii) The landfill site shall be 100 meter away from river, 200 meter from a pond, 200 meter from Highways, Habitations, Public Parks and water supply wells and 20 km away from Airports or Airbase. However in a special case, landfill site may be set up within a distance of 10 and 20 km away from the Airport/Airbase after obtaining no objection certificate from the civil aviation authority/ Air force as the case may be. The Landfill site shall not be permitted within the flood plains as recorded for the last 100 years, zone of coastal regulation, wetland, Critical habitat areas, sensitive eco-fragile areas..
- (viii) The sites for landfill and processing and disposal of solid waste shall be incorporated in the Town Planning Department's land-use plans.
- (ix) A buffer zone of no development shall be maintained around solid waste processing and disposal facility, exceeding five Tonnes per day of installed capacity. This will be maintained within the total area of the solid waste processing and disposal facility. The buffer zone shall be prescribed on case to case basis by the local body in consultation with concerned State Pollution Control Board.
- (x) The biomedical waste shall be disposed of in accordance with the Bio-medical Waste Management Rules, 2016, as amended from time to time. The hazardous waste shall be managed in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, as amended from time to time. The E-waste shall be managed in accordance with the e-Waste (Management) Rules, 2016 as amended from time to time.
- (xi) Temporary storage facility for solid waste shall be established in each landfill site to accommodate the waste in case of non- operation of waste processing and during emergency or natural calamities.

(B) Criteria for development of facilities at the sanitary landfills.-

- (i) Landfill site shall be fenced or hedged and provided with proper gate to monitor incoming vehicles, to prevent entry of unauthorised persons and stray animals
- (ii) The approach and / internal roads shall be concreted or paved so as to avoid generation of dust particles due to vehicular movement and shall be so designed to ensure free movement of vehicles and other machinery.
- (iii) The landfill site shall have waste inspection facility to monitor waste brought in for landfilling h, office facility for record keeping and shelter for keeping equipment and machinery including pollution monitoring equipment. The operator of the facility shall maintain record of waste received, processed and disposed.

- (iv) Provisions like weigh bridge to measure quantity of waste brought at landfill site, fire protection equipment and other facilities as may be required shall be provided.
- (v) Utilities such as drinking water and sanitary facilities (preferably washing/bathing facilities for workers) and lighting arrangements for easy landfill operations during night hours shall be provided.
- (vi) Safety provisions including health inspections of workers at landfill sites shall be carried out made.
- (vii) Provisions for parking, cleaning, washing of transport vehicles carrying solid waste shall be provided. The wastewater so generated shall be treated to meet the prescribed standards.

(C) Criteria for specifications for land filling operations and closure on completion of land filling.-

- (i) Waste for land filling shall be compacted in thin layers using heavy compactors to achieve high density of the waste. In high rainfall areas where heavy compactors cannot be used, alternative measures shall be adopted.
- (ii) Till the time waste processing facilities for composting or recycling or energy recovery are set up, the waste shall be sent to the sanitary landfill. The landfill cell shall be covered at the end of each working day with minimum 10 cm of soil, inert debris or construction material..
- (iii) Prior to the commencement of monsoon season, an intermediate cover of 40-65 cm thickness of soil shall be placed on the landfill with proper compaction and grading to prevent infiltration during monsoon. Proper drainage shall be constructed to divert run-off away from the active cell of the landfill.
- (iv) After completion of landfill, a final cover shall be designed to minimise infiltration and erosion. The final cover shall meet the following specifications, namely :-
 - a) The final cover shall have a barrier soil layer comprising of 60 cm of clay or amended soil with permeability coefficient less than 1×10^{-7} cm/sec.
 - b) On top of the barrier soil layer, there shall be a drainage layer of 15 cm.
 - c) On top of the drainage layer, there shall be a vegetative layer of 45 cm to support natural plant growth and to minimise erosion.

(D) Criteria for pollution prevention.-In order to prevent pollution from landfill operations, the following provisions shall be made, namely:-

- (i) The storm water drain shall be designed and constructed in such a way that the surface runoff water is diverted from the landfilling site and leachates from solid waste locations do not get mixed with the surface runoff water. Provisions for diversion of storm water discharge drains shall be made to minimise leachate generation and prevent pollution of surface water and also for avoiding flooding and creation of marshy conditions.
- (ii) Non-permeable lining system at the base and walls of waste disposal area. For landfill receiving residues of waste processing facilities or mixed waste or waste having contamination of hazardous materials (such as aerosols, bleaches, polishes, batteries, waste oils, paint products and pesticides) shall have liner of composite barrier of 1.5 mm thick high density polyethylene (HDPE) geo-membrane or geo-synthetic liners, or equivalent, overlying 90 cm of soil (clay or amended soil) having permeability coefficient not greater than 1×10^{-7} cm/sec. The highest level of water table shall be at least two meter below the base of clay or amended soil barrier layer provided at the bottom of landfills.
- (iii) Provisions for management of leachates including its collection and treatment shall be made. The treated leachate shall be recycled or utilized as permitted, otherwise shall be released into the sewerage line, after meeting the standards specified in Schedule- II. In no case, leachate shall be released into open environment.
- (iv) Arrangement shall be made to prevent leachate runoff from landfill area entering any drain, stream, river, lake or pond. In case of mixing of runoff water with leachate or solid waste, the entire mixed water shall be treated by the concern authority.

(E) Criteria for water quality monitoring.-

- (i) Before establishing any landfill site, baseline data of ground water quality in the area shall be collected and kept in record for future reference. The ground water quality within 50 meter of the periphery of landfill site shall be periodically monitored covering different seasons in a year that is, summer, monsoon and post-monsoon period to ensure that the ground water is not contaminated.
- (ii) Usage of groundwater in and around landfill sites for any purpose (including drinking and irrigation) shall be considered only after ensuring its quality. The following specifications for drinking water quality shall apply for monitoring purpose, namely :-

S. No.	Parameters	IS 10500:2012, Edition 2.2(2003-09) Desirable limit (mg/l except for pH)
(1)	(2)	(3)
	Arsenic	0.01
	Cadmium	0.01
	Chromium(as Cr ⁶⁺)	0.05
	Copper	0.05
	Cyanide	0.05
	Lead	0.05
	Mercury	0.001
	Nickel	-
	Nitrate as NO ₃	45.0
	pH	6.5-8.5
	Iron	0.3
	Total hardness (as CaCO ₃)	300.0
	Chlorides	250
	Dissolved solids	500
	Phenolic compounds (as C ₆ H ₅ OH)	0.001
	Zinc	5.0
	Sulphate (as SO ₄)	200

(F) Criteria for ambient air quality monitoring.-

- Landfill gas control system including gas collection system shall be installed at landfill site to minimize odour, prevent off-site migration of gases, to protect vegetation planted on the rehabilitated landfill surface. For enhancing landfill gas recovery, use of geomembranes in cover systems along with gas collection wells should be considered.
- The concentration of methane gas generated at landfill site shall not exceed 25 per cent of the lower explosive limit (LEL).
- The landfill gas from the collection facility at a landfill site shall be utilized for either direct thermal applications or power generation, as per viability. Otherwise, landfill gas shall be burnt (flared) and shall not be allowed to escape directly to the atmosphere or for illegal tapping. Passive venting shall be allowed in case if its utilisation or flaring is not possible.
- Ambient air quality at the landfill site and at the vicinity shall be regularly monitored. Ambient air quality shall

meet the standards prescribed by the Central Pollution Control Board for Industrial area.

G. Criteria for plantation at landfill Site.- A vegetative cover shall be provided over the completed site in accordance with the following specifications, namely:-

- (a) Locally adopted non-edible perennial plants that are resistant to drought and extreme temperatures shall be planted;
- (b) The selection of plants should be of such variety that their roots do not penetrate more than 30 cms. This condition shall apply till the landfill is stabilized;
- (c) Selected plants shall have ability to thrive on low-nutrient soil with minimum nutrient addition;
- (d) Plantation to be made in sufficient density to minimise soil erosion.
- (e) Green belts shall be developed all around the boundary of the landfill in consultation with State Pollution Control Boards or Pollution Control Committees .

H. Criteria for post-care of landfill site.- (1) The post-closure care of landfill site shall be conducted for at least fifteen years and long term monitoring or care plan shall consist of the following, namely :-

- (a) Maintaining the integrity and effectiveness of final cover, making repairs and preventing run-on and run-off from eroding or otherwise damaging the final cover;
- (b) Monitoring leachate collection system in accordance with the requirement;
- (c) Monitoring of ground water in and around landfill;
- (d) Maintaining and operating the landfill gas collection system to meet the standards.
- (2) Use of closed landfill sites after fifteen years of post-closure monitoring can be considered for human settlement or otherwise only after ensuring that gaseous emission and leachate quality analysis complies with the specified standards and the soil stability is ensured.

I. Criteria for special provisions for hilly areas.-Cities and towns located on hills shall have location-specific methods evolved for final disposal of solid waste by the local body with the approval of the concerned State Pollution Control Board or the Pollution Control Committee. The local body shall set up processing facilities for utilisation of biodegradable organic waste. The non-biodegradable recyclable materials shall be stored and sent for recycling periodically. The inert and non-biodegradable waste shall be used for building roads or filling-up of appropriate areas on hills. In case of constraints in finding adequate land in hilly areas, waste not suitable for road-laying or filling up shall be disposed of in regional landfills in plain areas.

J. Closure and Rehabilitation of Old Dumps- Solid waste dumps which have reached their full capacity or those which will not receive additional waste after setting up of new and properly designed landfills should be closed and rehabilitated by examining the following options:

- (i) Reduction of waste by bio mining and waste processing followed by placement of residues in new landfills or capping as in (ii) below.
- (ii) Capping with solid waste cover or solid waste cover enhanced with geomembrane to enable collection and flaring / utilisation of greenhouse gases.
- (iii) Capping as in (ii) above with additional measures (in alluvial and other coarse grained soils) such as cut-off walls and extraction wells for pumping and treating contaminated ground water.
- (iv) Any other method suitable for reducing environmental impact to acceptable level.

SCHEDULE II

[see rule 16 (1), (b), (e), 16 (4)]

Standards of processing and treatment of solid waste

A. Standards for composting.- The waste processing facilities shall include composting as one of the technologies for processing of bio degradable waste. In order to prevent pollution from compost plant, the following shall be complied with namely :-

- (a) The incoming organic waste at site shall be stored properly prior to further processing. To the extent possible, the waste storage area should be covered. If, such storage is done in an open area, it shall be provided with impermeable base with facility for collection of leachate and surface water run-off into lined drains leading to a leachate treatment and disposal facility;
- (b) Necessary precaution shall be taken to minimise nuisance of odour, flies, rodents, bird menace and fire hazard;

- (c) In case of breakdown or maintenance of plant, waste intake shall be stopped and arrangements be worked out for diversion of waste to the temporary processing site or temporary landfill sites which will be again reprocessed when plant is in order;
- (d) Pre-process and post-process rejects shall be removed from the processing facility on regular basis and shall not be allowed to pile at the site. Recyclables shall be routed through appropriate vendors. The non-recyclable high calorific fractions to be segregated and sent to waste to energy or for RDF production, co-processing in cement plants or to thermal power plants. Only rejects from all processes shall be sent for sanitary landfill site(s).
- (e) The windrow area shall be provided with impermeable base. Such a base shall be made of concrete or compacted clay of 50 cm thick having permeability coefficient less than 10^{-7} cm/sec. The base shall be provided with 1 to 2 per cent slope and circled by lined drains for collection of leachate or surface run-off;
- (f) Ambient air quality monitoring shall be regularly carried out. Odour nuisance at down-wind direction on the boundary of processing plant shall also be checked regularly.
- (g) Leachate shall be re-circulated in compost plant for moisture maintenance.
- (h) The end product compost shall meet the standards prescribed under Fertilizer Control Order notified from time to time.
- (i) In order to ensure safe application of compost, the following specifications for compost quality shall be met, namely:-

Parameters	Organic Compost (FCO 2009)	Phosphate Rich Organic Manure (FCO 2013)
(1)	(2)	(3)
Arsenic (mg/Kg)	10.00	10.00
Cadmium (mg/Kg)	5.00	5.00
Chromium (mg/Kg)	50.00	50.00
Copper (mg/Kg)	300.00	300.00
Lead (mg/Kg)	100.00	100.00
Mercury (mg/Kg)	0.15	0.15
Nickel (mg/Kg)	50.00	50.00
Zinc (mg/Kg)	1000.00	1000.00
C/N ratio	<20	Less than 20:1
pH	6.5-7.5	(1:5 solution) maximum 6.7
Moisture, percent by weight, maximum	15.0-25.0	25.0
Bulk density (g/cm ³)	<1.0	Less than 1.6
Total Organic Carbon, per cent by weight, minimum	12.0	7.9

Total Nitrogen (as N), per cent by weight, minimum	0.8	0.4
Total Phosphate (as P ₂ O ₅) percent by weight, minimum	0.4	10.4
Total Potassium (as K ₂ O), percent by weight, minimum	0.4	-
Colour	Dark brown to black	-
Odour	Absence of foul Odor	-
Particle size	Minimum 90% material should pass through 4.0 mm IS sieve	Minimum 90% material should pass through 4.0 mm IS sieve
Conductivity (as dsm-1), not more than	4.0	8.2

* Compost (final product) exceeding the above stated concentration limits shall not be used for food crops. However, it may be utilized for purposes other than growing food crops.

B. Standards for treated leachates.—The disposal of treated leachates shall meet the following standards, namely:—

S. No	Parameter	Standards (Mode of Disposal)		
		Inland surface water	Public sewers	Land disposal
(1)	(2)	(3)	(4)	(5)
1.	Suspended solids, mg/l, max	100	600	200
2.	Dissolved solids (inorganic) mg/l, max.	2100	2100	2100
3	pH value	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0
4	Ammonical nitrogen (as N), mg/l, max.	50	50	-
5	Total Kjeldahl nitrogen (as N), mg/l, max.	100	-	-
6	Biochemical oxygen demand (3 days at 27° C) max.(mg/l)	30	350	100
7	Chemical oxygen demand, mg/l, max.	250	-	-
8	Arsenic (as As), mg/l, max	0.2	0.2	0.2
9	Mercury (as Hg), mg/l, max	0.01	0.01	-
10	Lead (as Pb), mg/l, max	0.1	1.0	-
11	Cadmium (as Cd), mg/l, max	2.0	1.0	-

12	Total Chromium (as Cr), mg/l, max.	2.0	2.0	-
13	Copper (as Cu), mg/l, max.	3.0	3.0	-
14	Zinc (as Zn), mg/l, max.	5.0	15	-
15	Nickel (as Ni), mg/l, max	3.0	3.0	-
16	Cyanide (as CN), mg/l, max.	0.2	2.0	0.2
17	Chloride (as Cl), mg/l, max.	1000	1000	600
18	Fluoride (as F), mg/l, max	2.0	1.5	-
19	Phenolic compounds (as C ₆ H ₅ OH) mg/l, max.	1.0	5.0	-

Note : While discharging treated leachates into inland surface waters, quantity of leachates being discharged and the quantity of dilution water available in the receiving water body shall be given due consideration.

C. Standards for incineration: The Emission from incinerators /thermal technologies in Solid Waste treatment/disposal facility shall meet the following standards, namely:-

Parameter	Emission standard	
(1)	(2)	(3)
Particulates	50 mg/Nm ³	Standard refers to half hourly average value
HCl	50 mg/Nm ³	Standard refers to half hourly average value
SO₂	200 mg/Nm ³	Standard refers to half hourly average value
CO	100 mg/Nm ³	Standard refers to half hourly average value
	50 mg/Nm ³	Standard refers to daily average value
Total Organic Carbon	20 mg/Nm ³	Standard refers to half hourly average value
HF	4 mg/Nm ³	Standard refers to half hourly average value
NO_x (NO and NO₂ expressed as NO₂)	400 mg/Nm ³	Standard refers to half hourly average value
Total dioxins and furans	0.1 ng TEQ/Nm ³	Standard refers to 6-8 hours sampling. Please refer guidelines for 17 concerned congeners for toxic equivalence values to arrive at total toxic equivalence.
Cd + Th + their compounds	0.05 mg/Nm ³	Standard refers to sampling time anywhere between 30 minutes and 8 hours.
Hg and its compounds	0.05 mg/Nm ³	Standard refers to sampling time anywhere between 30 minutes and 8 hours.

Sb + As + Pb + Cr + Co + Cu + Mn + Ni + V + their compounds	0.5 mg/Nm ³	Standard refers to sampling time anywhere between 30 minutes and 8 hours.
<i>Note.- All values corrected to 11% oxygen on a dry basis.</i>		

Note:

- Suitably designed pollution control devices shall be installed or retrofitted with the incinerator to achieve the above emission limits..
- Waste to be incinerated shall not be chemically treated with any chlorinated disinfectants.
- Incineration of chlorinated plastics shall be phased out within two years.
- if the concentration of toxic metals in incineration ash exceeds the limits specified in the Hazardous Waste (Management, Handling and Trans boundary Movement) Rules, 2008, as amended from time to time, the ash shall be sent to the hazardous waste treatment, storage and disposal facility.
- Only low sulphur fuel like LDO, LSHS, Diesel, bio-mass, coal, LNG, CNG, RDF and bio-gas shall be used as fuel in the incinerator.
- The CO₂ concentration in tail gas shall not be more than 7%.
- All the facilities in twin chamber incinerators shall be designed to achieve a minimum temperature of 950⁰C in secondary combustion chamber and with a gas residence time in secondary combustion chamber not less than 2 (two) seconds.
- Incineration plants shall be operated (combustion chambers) with such temperature, retention time and turbulence, as to achieve total Organic Carbon (TOC) content in the slag and bottom ash less than 3%, or the loss on ignition is less than 5% of the dry weight.
- Odour from sites shall be managed as per guidelines of CPCB issued from time to time

FORM – I[see rule 15 (v) 16 (1) (c), 21(3)]

**Application for obtaining authorisation under solid waste management rules
for processing/recycling/treatment and disposal of solid waste**

To,

The Member Secretary,

State Pollution Control Board or Pollution Control Committee,

of.....

Sir,

I/We hereby apply for authorisation under the Solid Waste Management Rules, 2016 for processing, recycling, treatment and disposal of solid waste.

1.	Name of the local body/agency appointed by them/ operator of facility	
2.	Correspondence address Telephone No. Fax No. ,e-mail:	

3.	Nodal Officer & designation (Officer authorised by the local body or agency responsible for operation of processing/ treatment or disposal facility)	
4.	Authorisation required for setting up and operation of the facility (Please tick mark)	waste processing recycling treatment disposal at landfill
5.	Attach copies of the Documents Site clearance (local body) Proof of Environmental Clearance Consent for establishment Agreement between municipal authority and operating agency Investment on the project and expected return	
6.	Processing/recycling/treatment of solid waste (i) Total Quantity of waste to be processed per day Quantity of waste to be recycled Quantity of waste to be treated Quantity of waste to be disposed into landfill (ii) Utilisation programme for waste processed (Product utilisation) (iii) Methodology for disposal (attach details) Quantity of leachate Treatment technology for leachate (iv) Measures to be taken for prevention and control of environmental pollution (v) Measures to be taken for safety of workers working in the plant (vi) Details on solid waste processing/recycling/ treatment/disposal facility (to be attached)	
7.	Disposal of solid waste Number of sites identified Quantity of waste to be disposed per day Details of methodology or criteria followed for site selection (attach) Details of existing site under operation Methodology and operational details of landfilling Measures taken to check environmental pollution	
8.	Any other information.	

Date:

Place:

Signature:

Designation

Form- II

[see rule 16 (1) (c)]

Format for issue of authorisation

File No.: _____

Dated: _____

Authorisation No _____

To

Ref: Your application number _____ dt. _____

The _____ State Pollution Control Board/Pollution Control Committee after examining the proposal hereby authorises _____ having administrative office at _____ to set up and operate waste processing/recycling/ treatment/disposal facility at _____

The authorisation is hereby granted to operate the facility for processing, recycling, treatment and disposal of solid waste.

The authorisation is subject to the terms and conditions stated below and such conditions as may be otherwise specified in these rules and the standards laid down in Schedules I and II under these rules.

The _____ State Pollution Control Board/Pollution Control Committees of the UT _____ may, at any time, revoke any of the conditions applicable under the authorisation and shall communicate the same in writing.

Any violation of the provision of the Solid Waste Management Rules, 2016 will attract the penal provision of the Environment (Protection) Act, 1986 (29 of 1986).

(Member Secretary)

State Pollution Control Board/Pollution Control Committee of the UT

(Signature and designation)

Date:

Place:

Form – III

[see rule 19 (6), 24 (1)]

Format of annual report to be submitted by the operator of facility to the local body

1	Name of the City/Town and State	
2	Population	
3	Area in sq. kilometers	
4	Name & Address of the local body Telephone No. Fax No. E-mail:	
5	Name and address of operator of the facility	
6	Name of officer in-charge of the facility Phone No: Fax No: E-mail:	

7	Number of households in the city/town , Number of non-residential premises in the city Number of election/ administrative wards in the city/town	
8	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 landfill	/tpd
9	Status of Solid Waste Management (SWM) service	
	Segregation and storage of waste at source Whether solid waste is stored at source in domestic/commercial/ institutional bins If yes, Percentage of households 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 of throw solid waste on the streets Percentage of non-residential premises dispose of throw solid waste on the streets Whether solid waste is stored at source in a segregated form If yes, Percentage of premises segregating the waste at source	Yes/No % % % % Yes/No %
	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, bye-lanes in the city that need to be cleaned	km				
Frequency of street sweepings and percentage of population covered	frequency	Daily	Alternate days	Twice a week	Occasionally
	% of population covered				
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 handcart / 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					
Upto 1.1 m ³ bins					
2 to 5 m ³ bins					
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 (pl tick or add)	No. Trips made waste transported
	<input type="checkbox"/> Animal cart <input type="checkbox"/> Tractors <input type="checkbox"/> Non tipping Truck <input type="checkbox"/> Tipping Truck <input type="checkbox"/> Dumper Placers <input type="checkbox"/> Refuse collectors <input type="checkbox"/> Compactors <input type="checkbox"/> Others <input type="checkbox"/> JCB/loader	
	Frequency of transportation of waste	Frequency (%) of waste transported <input type="checkbox"/> Daily <input type="checkbox"/> Alternate day <input type="checkbox"/> Twice a week <input type="checkbox"/> Once a week <input type="checkbox"/> 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
	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 ,	Qty. raw material processed Qty. final product produced Qty. sold Qty. of residual waste landfilled
	vermi composting	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled
	Bio-methanation	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled
	Refuse Derived Fuel	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled
	Waste to Energy technology such as incineration, gasification, pyrolysis or any other technology (give detail)	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled
	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 local body	
	Area of each such sites available for waste disposal	
	Area of land currently used for waste disposal	
	Distance of dumpsite/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 places 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 landfilled 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
	Vehicles and equipments used at landfill (specify)	Bulldozer, Compacters etc. available
	Manpower deployed at landfill 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)
	Provision for leachate collection	Yes/No, (if yes, attach technical data sheet)
10	Whether an Action Plan has been prepared for improving solid waste management practices in the city	Yes/No (if Yes attach Action Plan details)
11	What separate provisions are made for : Dairy related activities : Slaughter houses waste : C&D waste (construction debris) :	Attach details on Proposals, Steps taken, Yes/No Yes/No Yes/No
12	Details of Post Closure Plan	Attach Plan
13	How many slums are identified and whether these are provided with Solid Waste Management facilities :	Yes/ No (if Yes, attach details)
14	Give details of 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.	

Signature of Operator

Dated :

Place:

Form – IV

[see rules 15(za), 24(2)]

Format for annual report on solid waste management to be submitted by the local body

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 (SOLID WASTEM)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 (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, Percentage of households 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 premises dispose of throw solid waste on the streets Whether solid waste is stored at source in a segregated form, If yes, Percentage of premises segregating the waste at source	Yes/No % % % % Yes/No %
	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, bye-lanes in the city that need to be cleaned	km

	Frequency of street sweepings and percentage of population covered	frequency	Daily	Alternate days	Twice a week	Occasionally
		% of population covered				
	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 handcart / 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					
	Upto 1.1 m ³ bins					
	2 to 5 m ³ bins					
	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	<div style="text-align: right;">%</div> <div style="text-align: right;">%</div>	
	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. 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 (%) of waste transported 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 ,	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled
Vermi composting	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled
Bio-methanation	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled

Refuse Derived Fuel	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled
Waste to Energy technology such as incineration, gasification, pyrolysis or any other technology (give detail)	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled
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 local body	
Area of each such sites available for waste disposal	
Area of land currently used for waste disposal	
Distance of dumpsite/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 places 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 landfilled 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
	Vehicles and equipments used at landfill (specify)	Bulldozer, Compacters etc. available
	Manpower deployed at landfill 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)
	Provision for leachate collection	Yes/No (if yes, attach technical data sheet)
9	Whether an Action Plan 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 : Dairy related activities : Slaughter houses waste : C&D waste (construction debris) :	Attach details on Proposals, Steps taken, Yes/No Yes/No 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	
----	--	--

Signature of CEO/Municipal Commissioner/
Executive Officer/Chief Officer

Date:

Place:

Form – V

[see rule 24(3)]

Format of annual report to be submitted by the state pollution control board or pollution control committee committees to the central pollution control board

PART A

To,

The Chairman
Central Pollution Control Board
Parivesh Bhawan, East Arjun Nagar
DELHI- 110 0032

1.	Name of the State/Union territory	:	
2.	Name & address of the State Pollution Control	:	
3.	Number of local bodies responsible for management of solid waste in the State/Union territory under these rules	:	
4.	No. of authorisation application Received	:	
5.	A Summary Statement on progress made by local body: in respect of solid waste management	:	Please attach as Annexure-I
6.	A Summary Statement on progress made by local bodies: in respect of waste collection, segregation, transportation and disposal	:	Please attach as Annexure-II
7.	A summary statement on progress made by local bodies: in respect of implementation of Schedule II	:	Please attach as Annexure-III

Date:	Chairman or the Member Secretary
Place:	State Pollution Control Board/ Pollution Control Committee

PART B**Towns/cities**

Total number of towns/cities

Total number of ULBs

Number of class I & class II cities/towns

Authorisation status (names/number)

Number of applications received

Number of authorisations granted

Authorisations under scrutiny

SOLID WASTE Generation status

Solid waste generation in the state (TPD)

collected

treated

landfilled

Compliance to Schedule I of SW Rules (Number/names of towns/capacity)

Good practices in cities/towns

House-to-house collection

Segregation

Storage

Covered transportation

Processing of SW (Number/names of towns/capacity)

Solid Waste processing facilities setup:

Sl. No.	Composting	Vermi-composting	Biogas	RDF/Pelletization

Processing facility operational:

Sl. No.	Composting	Vermi-composting	Biogas	RDF/Pelletization

Processing facility under installation/planned:

Sl. No.	Composting	Vermi-composting	Biogas	RDF/Pelletisation

Waste-to-Energy Plants: (Number/names of towns/capacity)

Sl. No.	Plant Location	Status of operation	Power generation (MW)	Remarks

Disposal of solid waste (number/names of towns/capacity):

Landfill sites identified

Landfill constructed

Landfill under construction

Landfill in operation

Landfill exhausted

Landfilled capped

Solid Waste Dumpsites (number/names of towns/capacity):

Total number of existing dumpsites

Dumpsites reclaimed/capped

Dumpsites converted to sanitary landfill

Monitoring at Waste processing/Landfills sites

Sl. No.	Name of facilities	Ambient air	Groundwater	Leachate quality	Compost quality	VOCs
1.						
2.						
3.						

Status of Action Plan prepared by Municipalities

Total number of municipalities:

Number of Action Plan submitted:

Form – VI

[see rule 25]

Accident Reporting

1.	Date and time of accident	
2.	Sequence of events leading to accident	
3.	The waste involved in accident	

4.	Assessment of the effects of the accidents on human health and the environment	:	
5.	Emergency measures taken	:	
6.	Steps taken to alleviate the effects of accidents	:	
7.	Steps taken to prevent the recurrence of such an accident	:	
Date:		Signature:.....	
Place:		Designation:	

[F. No. 18-3/2004-HSMD]

BISHWANATH SINHA, Jt. Secy.



भारत का राजपत्र The Gazette of India

असाधारण

EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (i)

PART II—Section 3—Sub-section (i)

प्राधिकार से प्रकाशित

PUBLISHED BY AUTHORITY

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पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 18 मार्च, 2016

सा.का.नि. 320(अ).—भारत सरकार, तत्कालीन पर्यावरण और वन मंत्रालय द्वारा अधिसूचना संख्या का.आ. 249(अ), तारीख 4 फरवरी, 2011 के तहत प्लास्टिक अपशिष्ट (प्रबंध और प्रहस्तन) नियम, 2011 प्रकाशित किए गए थे, जिन्हें समय-समय पर संशोधित किया गया। इन नियमों ने देश में जनित प्लास्टिक अपशिष्ट के प्रबंध के लिए एक नियामक ढांचा उपलब्ध कराया;

और इन नियमों को अधिक कारगर ढंग से लागू करने और प्लास्टिक अपशिष्ट को न्यूनतम करने, स्रोत पर पृथक्करण, पुनः चक्रण पर बल देने के लिए घरों से अथवा इसके जनन के अन्य किसी स्रोत से अथवा मध्यवर्ती सामग्री पुनः प्राप्ति सुविधा से प्लास्टिक अपशिष्ट के टुकड़ों के संग्रहण में अपशिष्ट बीनने वालों, पुनः चक्रकों और अपशिष्ट संसाधकों को शामिल किया और अपशिष्ट प्रबंध प्रणाली की दीर्घकालिकता के लिए प्रदूषकों के भुगतान करने का सिद्धांत अपनाने के लिए केंद्रीय सरकार ने वर्तमान नियमों की समीक्षा की;

और पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 6, 8 और 25 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए भारत सरकार, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय द्वारा मसौदा नियम अर्थात् प्लास्टिक अपशिष्ट प्रबंध नियम, 2015 भारत के राजपत्र में सा.का.नि.423(अ), तारीख 25 मई, 2015 के तहत प्रकाशित कराए गए थे जिसमें जिस तारीख को उक्त अधिसूचना वाले राजपत्र की प्रतियां जनता को उपलब्ध कराई गई थीं उससे 60 दिन की अवधि समाप्त होने से पूर्व इनसे प्रभावित होने वाले संभावित सभी व्यक्तियों से आपत्तियां और सुझाव आमंत्रित किए गए थे;

और उक्त राजपत्र की प्रतियां 25 मई, 2015 को जनता को उपलब्ध करा दी गई थीं।

और उक्त मसौदा नियमों के संबंध में जनता से उक्त अवधि के अंदर प्राप्त आपत्तियों और सुझावों पर केंद्रीय सरकार द्वारा विधिवत विचार किया गया है;

[illegible]

[फा. सं. 17-2 / 2001-एचएसएमडी]

विश्वनाथ सिन्हा, संयुक्त सचिव

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 18th March, 2016

G.S.R. 320(E).—Whereas the Plastic Waste (Management and Handling) Rules, 2011 published vide notification number S.O 249(E), dated 4th February, 2011 by the Government of India in the erstwhile Ministry of Environment and Forests, as amended from time to time, provided a regulatory frame work for management of plastic waste generated in the country;

And whereas, to implement these rules more effectively and to give thrust on plastic waste minimization, source segregation, recycling, involving waste pickers, recyclers and waste processors in collection of plastic waste fraction either from households or any other source of its generation or intermediate material recovery facility and adopt polluter's pay principle for the sustainability of the waste management system, the Central Government reviewed the existing rules;

And whereas, in exercise of the powers conferred by sections 6, 8 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the draft rules, namely, the Plastic Waste Management, Rules, 2015 were published by the Government of India in the Ministry of Environment, Forest and Climate Change *vide* number G.S.R. 423(E), dated the 25th May, 2015 in the Gazette of India, inviting objections and suggestions from all persons likely to be affected thereby, before the expiry of a period of sixty days from the date on which copies of the Gazette containing the said notification were made available to the public;

And Whereas copies of the said Gazette were made available to the public on the 25th May, 2015;

And Whereas the objections and suggestions received within the said period from the public in respect of the said draft rules have been duly considered by the Central Government;

NOW, Therefore, in exercise of the powers conferred by sections 3, 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), and in supersession of the Plastic Waste (Management and Handling) Rules, 2011, except as respects things done or omitted to be done before such supersession, the Central Government hereby makes the following rules, namely:-

1. Short title and commencement.- (1) These rules shall be called the Plastic Waste Management Rules, 2016.

(1) Save as otherwise provided in these rules, they shall come into force on the date of their publication in the Official Gazette.

2. Application.-(1) These rules shall apply to every waste generator, local body, Gram Panchayat, manufacturer, Importers and producer.

(2) The rule 4 shall not apply to the export oriented units or units in special economic zones, notified by the Central Government, manufacturing their products against an order for export: Provide this exemption shall not apply to units engaged in packaging of gutkha, tobacco and pan masala and also to any surplus or rejects, left over products and the like.

3. Definitions.- In these rules, unless the context otherwise requires.-

(a) “Act” means the Environment (Protection) Act, 1986 (29 of 1986);

(b) **“brand owner”** means a person or company who sells any commodity under a registered brand

label.

- (c) **"carry bags"** mean bags made from plastic material or compostable plastic material, used for the purpose of carrying or dispensing commodities which have a self carrying feature but do not include bags that constitute or form an integral part of the packaging in which goods are sealed prior to use.
- (d) **"commodity"** means tangible item that may be bought or sold and includes all marketable goods or wares;
- (e) **"compostable plastics"** mean plastic that undergoes degradation by biological processes during composting to yield CO₂, water, inorganic compounds and biomass at a rate consistent with other known compostable materials, excluding conventional petro-based plastics, and does not leave visible, distinguishable or toxic residue;
- (f) **"consent"** means the consent to establish and operate from the concerned State Pollution Control Board or Pollution Control Committee granted under the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974), and the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981);
- (g) **"disintegration"** means the physical breakdown of a material into very small fragments;
- (h) **"extended producer's responsibility "** means the responsibility of a producer for the environmentally sound management of the product until the end of its life;
- (i) **"food-stuffs"** mean ready to eat food products, fast food, processed or cooked food in liquid, powder, solid or semi-solid form;
- (j) **"facility"** means the premises used for collection, Storage, recycling, processing and disposal of plastic waste;
- (k) **"importer"** means a person who imports or intends to import and holds an Importer -Exporter Code number, unless otherwise specifically exempted.
- (l) **"institutional waste generator"** means and includes occupier of the institutional buildings such as building occupied by Central Government Departments, State Government Departments, public or private sector companies, hospitals, schools, colleges, universities or other places of education, organisation, academy, hotels, restaurants, malls and shopping complexes;
- (m) **"manufacturer"** means and include a person or unit or agency engaged in production of plastic raw material to be used as raw material by the producer.
- (n) **"multilayered packaging"** means any material used or to be used for packaging and having at least one layer of plastic as the main ingredients in combination with one or more layers of materials such as paper, paper board, polymeric materials, metalised layers or aluminium foil, either in the form of a laminate or co-extruded structure;
- (o) **"plastic"** means material which contains as an essential ingredient a high polymer such as polyethylene terephthalate, high density polyethylene, Vinyl, low density polyethylene, polypropylene, polystyrene resins, multi-materials like acrylonitrile butadiene styrene, polyphenylene oxide, polycarbonate, Polybutylene terephthalate;
- (p) **"plastic sheet"** means Plastic sheet is the sheet made of plastic;
- (q) **"plastic waste"** means any plastic discarded after use or after their intended use is over;
- (r) **"prescribed authority"** means the authorities specified in rule 12;
- (s) **"producer"** means persons engaged in manufacture or import of carry bags or multilayered packaging or plastic sheets or like, and includes industries or individuals using plastic sheets or like or covers made of plastic sheets or multilayered packaging for packaging or wrapping the commodity;
- (t) **"recycling"** means the process of transforming segregated plastic waste into a new product or raw material for producing new products;

- (u) **"registration"** means registration with the State Pollution Control Board or Pollution Control Committee concerned, as the case may be;
- (v) **"street vendor"** shall have the same meaning as assigned to it in clause (l) of sub-section (1) of Section 2 of the Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014 (7 of 2014);
- (w) **"local body"** means urban local body with different nomenclature such as municipal corporation, municipality, nagarpalika, nagarnigam, nagarpanchayat, municipal council including notified area committee (NAC) and not limited to or any other local body constituted under the relevant statutes such as gram panchayat, where the management of plastic waste is entrusted to such agency;
- (x) **"virgin plastic"** means plastic material which has not been subjected to use earlier and has also not been blended with scrap or waste;
- (y) **"waste generator"** means and includes every person or group of persons or institution, residential and commercial establishments including Indian Railways, Airport, Port and Harbour and Defense establishments which generate plastic waste;
- (z) **"waste management"** means the collection, storage, transportation reduction, re-use, recovery, recycling, composting or disposal of plastic waste in an environmentally safe manner;
- (aa) **"waste pickers"** mean individuals or agencies, groups of individuals voluntarily engaged or authorised for picking of recyclable plastic waste.

4. Conditions.- (1) The manufacture, importer stocking, distribution, sale and use of carry bags, plastic sheets or like, or cover made of plastic sheet and multilayered packaging, shall be subject to the following conditions, namely:-

- a) carry bags and plastic packaging shall either be in natural shade which is without any added pigments or made using only those pigments and colourants which are in conformity with Indian Standard : IS 9833:1981 titled as "List of pigments and colourants for use in plastics in contact with foodstuffs, pharmaceuticals and drinking water", as amended from time to time;
- b) Carry bags made of recycled plastic or products made of recycled plastic shall not be used for storing, carrying, dispensing or packaging ready to eat or drink food stuff;
- c) carry bag made of virgin or recycled plastic, shall not be less than fifty microns in thickness;
- d) plastic sheet or like, which is not an integral part of multilayered packaging and cover made of plastic sheet used for packaging, wrapping the commodity shall not be less than fifty microns in thickness except where the thickness of such plastic sheets impair the functionality of the product;
- e) the manufacturer shall not sell or provide or arrange plastic to be used as raw material to a producer, not having valid registration from the concerned State Pollution Control Boards or Pollution Control Committee;
- f) sachets using plastic material shall not be used for storing, packing or selling gutkha, tobacco and pan masala;
- g) recycling of plastic waste shall conform to the Indian Standard: IS 14534:1998 titled as Guidelines for Recycling of Plastics, as amended from time to time;
- h) The provision of thickness shall not be applicable to carry bags made up of compostable plastic. Carry bags made from compostable plastics shall conform to the Indian Standard: IS 17088:2008 titled as Specifications for Compostable Plastics, as amended from time to time. The manufacturers or seller of compostable plastic carry bags shall obtain a certificate from the Central Pollution Control Board before marketing or selling; and
- i) plastic material, in any form including Vinyl Acetate - Maleic Acid - Vinyl Chloride Copolymer, shall not be used in any package for packaging gutkha, pan masala and tobacco in all forms.

5. Plastic waste management.- (1) The plastic waste management by the urban local bodies in their respective jurisdiction shall be as under:-

- (a) plastic waste, which can be recycled, shall be channelized to registered plastic waste recycler and recycling of plastic shall conform to the Indian Standard: IS 14534:1998 titled as Guidelines for Recycling of Plastics, as amended from time to time.
- (b) local bodies shall encourage the use of plastic waste (preferably the plastic waste which cannot be further recycled) for road construction as per Indian Road Congress guidelines or energy recovery or waste to oil etc. The standards and pollution control norms specified by the prescribed authority for these technologies shall be complied with.
- (c) Thermo set plastic waste shall be processed and disposed off as per the guidelines issued from time to time by the Central Pollution Control Board.
- (d) The inert from recycling or processing facilities of plastic waste shall be disposed of in compliance with the Solid Waste Management Rules, 2000 or as amended from time to time.

6. Responsibility of local body.- (1) Every local body shall be responsible for development and setting up of infrastructure for segregation, collection, storage, transportation, processing and disposal of the plastic waste either on its own or by engaging agencies or producers.

(2) The local body shall be responsible for setting up, operationalisation and co-ordination of the waste management system and for performing the associated functions, namely:-

- (a) Ensuring segregation, collection, storage, transportation, processing and disposal of plastic waste;
- (b) ensuring that no damage is caused to the environment during this process;
- (c) ensuring channelization of recyclable plastic waste fraction to recyclers;
- (d) ensuring processing and disposal on non-recyclable fraction of plastic waste in accordance with the guidelines issued by the Central Pollution Control Board;
- (e) creating awareness among all stakeholders about their responsibilities;
- (f) engaging civil societies or groups working with waste pickers; and
- (g) ensuring that open burning of plastic waste does not take place.

(3) The local body for setting up of system for plastic waste management shall seek assistance of producers and such system shall be set up within one year from the date of final publication of these rules in the Official Gazette of India.

(4) The local body to frame bye-laws incorporating the provisions of these rules.

7. Responsibility of Gram Panchayat.- (1) Every gram panchayat either on its own or by engaging an agency shall set up, operationalise and co-ordinate for waste management in the rural area under their control and for performing the associated functions, namely,-

- (a) ensuring segregation, collection, storage, transportation, plastic waste and channelization of recyclable plastic waste fraction to recyclers having valid registration; ensuring that no damage is caused to the environment during this process;
- (b) creating awareness among all stakeholders about their responsibilities; and
- (c) ensuring that open burning of plastic waste does not take place

8. Responsibility of waste generator.- (1) The waste generator shall.-

- (a) take steps to minimize generation of plastic waste and segregate plastic waste at source in accordance with the Solid Waste Management Rules, 2000 or as amended from time to time.
 - (b) not litter the plastic waste and ensure segregated storage of waste at source and handover segregated waste to urban local body or gram panchayat or agencies appointed by them or registered waste pickers', registered recyclers or waste collection agencies;
- (2) All institutional generators of plastic waste, shall segregate and store the waste generated by them in accordance with the Municipal Solid Waste (Management and Handling) Rules, 2000 notified vide S.O. 908(E) dated the 25th September, 2000 under the Act or amendment from time to time and handover

segregated wastes to authorized waste processing or disposal facilities or deposition centers either on its own or through the authorized waste collection agency.

(3) All waste generators shall pay such user fee or charge as may be specified in the bye-laws of the local bodies for plastic waste management such as waste collection or operation of the facility thereof, etc.;

(4) Every person responsible for organising an event in open space, which involves service of food stuff in plastic or multilayered packaging shall segregate and manage the waste generated during such events in accordance with the Municipal Solid Waste (Management and Handling) Rules, 2000 notified vide

S.O. 908(E) dated the 25th September, 2000 under the Act or amendment from time to time.

9. Responsibility of producers, Importers and Brand Owners.- (1) The producers, within a period of six months from the date of publication of these rules, shall work out modalities for waste collection system based on Extended Producers Responsibility and involving State Urban Development Departments, either individually or collectively, through their own distribution channel or through the local body concerned.

(2) Primary responsibility for collection of used multi-layered plastic sachet or pouches or packaging is of Producers, Importers and Brand Owners who introduce the products in the market. They need to establish a system for collecting back the plastic waste generated due to their products. This plan of collection to be submitted to the State Pollution Control Boards while applying for Consent to Establish or Operate or Renewal. The Brand Owners whose consent has been renewed before the notification of these rules shall submit such plan within one year from the date of notification of these rules and implement with two years thereafter.

(3) manufacture and use of non- recyclable multilayered plastic if any should be phased out in Two years time.

(4) The producer, within a period of three months from the date of final publication of these rules in the Official Gazette shall apply to the Pollution Control Board or the Pollution Control Committee, as the case may be, of the States or the Union Territories administration concerned, for grant of registration.

(5) No producer shall on and after the expiry of a period of Six Months from the date of final publication of these rules in the Official Gazette manufacture or use any plastic or multilayered packaging for packaging of commodities without registration from the concerned State Pollution Control Board or the Pollution Control Committees.

(6) Every producer shall maintain a record of details of the person engaged in supply of plastic used as raw material to manufacture carry bags or plastic sheet or like or cover made of plastic sheet or multilayered packaging.

10. Protocols for compostable plastic materials.- Determination of the degree of degradability and degree of disintegration of plastic material shall be as per the protocols of the Indian Standards listed in Schedule-I to these rules.

11. Marking or labelling.- (1) Each plastic carry bag and multilayered packaging shall have the following information printed in English namely,-

- (a) name, registration number of the manufacturer and thickness in case of carry bag;
- (b) name and registration number of the manufacturer in case of multilayered packaging; and
- (c) name and certificate number [Rule 4(h)] in case of carry bags made from compostable plastic

(2) Each recycled carry bag shall bear a label or a mark "recycled" as shown below and shall conform to the Indian Standard: IS 14534: 1998 titled as "Guidelines for Recycling of Plastics", as amended from time to time;



NOTE: PET-Polyethylene terephthalate, HDPE-High density polyethylene, V-Vinyl (PVC), LDPE- Low density polyethylene, PP-Polypropylene, PS-Polystyrene and Other means all other resins and multi-materials like ABS (Acrylonitrile butadiene styrene), PPO (Polyphenylene oxide), PC (Polycarbonate), PBT (Polybutylene terephthalate) etc.

Each carry bag made from compostable plastics shall bear a label "compostable" and shall conform to the Indian Standard : IS or ISO 17088:2008 titled as Specifications for "Compostable Plastics".

12. Prescribed authority.- (1) The State Pollution Control Board and Pollution Control Committee in respect of a Union territory shall be the authority for enforcement of the provisions of these rules relating to registration, manufacture of plastic products and multilayered packaging, processing and disposal of plastic wastes.

(2) The concerned Secretary-in-charge of Urban Development of the State or a Union Territory shall be the authority for enforcement of the provisions of these rules relating to waste management by waste generator, use of plastic carry bags, plastic sheets or like, covers made of plastic sheets and multilayered packaging.

(3) The concerned Gram Panchayat shall be the authority for enforcement of the provisions of these rules relating to waste management by the waste generator, use of plastic carry bags, plastic sheets or like, covers made of plastic sheets and multilayered packaging in the rural area of the State or a Union Territory.

(4) The authorities referred to in sub-rules (1) to (3) shall take the assistance of the District Magistrate or the Deputy Commissioner within the territorial limits of the jurisdiction of the concerned district in the enforcement of the provisions of these rules.

13. Registration of producer, recyclers and manufacturer,- (1) No person shall manufacture carry bags or recycle plastic bags or multilayered packaging unless the person has obtained a registration from the State Pollution Control Board or the Pollution Control Committee of the Union Territory concerned, as the case may be, prior to the commencement of production;

(2) Every producer shall, for the purpose of registration or for renewal of registration, make an application to the State Pollution Control Board or the Pollution Control Committee of the Union territory concerned, in Form I

(3) Every person recycling or processing waste or proposing to recycle or process plastic waste shall make an application to the State Pollution Control Board or the Pollution Control Committee, for grant of registration or renewal of registration for the recycling unit, in Form II.

(4) Every manufacturer engaged in manufacturer of plastic to be used as raw material by the producer shall make an application to the State Pollution Control Board or the Pollution Control Committee of the Union territory concerned, for the grant of registration or for the renewal of registration, in Form III.

(5) The State Pollution Control Board or the Pollution Control Committee shall not issue or renew registration to plastic waste recycling or processing units unless the unit possesses a valid consent under the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) and the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981) along with a certificate of registration issued by the District Industries Centre or any other Government agency authorised in this regard.

(6) The State Pollution Control Board or the Pollution Control Committee shall not renew registration of producer unless the producer possesses and action plan endorsed by the Secretary in charge of Urban Development of the concerned State or Union Territory for setting of plastic waste management system.

(7) On receipt of the application complete in all respects for the registration for recycling or processing of plastic waste under sub-rule (3), the State Pollution Control Board may, after such inquiry as it considers necessary and on being satisfied that the applicant possesses appropriate facilities, technical capabilities and equipment to handle plastic waste safely, may grant registration to the applicant on fulfilment of the conditions as may be laid down in terms of registration.

(8) Every State Pollution Control Board or Pollution Control Committee shall take a decision on the grant of registration within ninety days of receipt of an application which is complete in all respects.

(9) The registration granted under this rule shall initially be valid for a period of one year, unless revoked, suspended or cancelled and shall subsequently be granted for three years.

(10) State Pollution Control Board or the Pollution Control Committees shall not revoke, suspend or cancel registration without providing the opportunity of a hearing to the producer or person engaged in recycling or processing of plastic wastes.

(11) Every application for renewal of registration shall be made at least one hundred twenty days before the expiry of the validity of the registration certificate.

14. Responsibility of retailers and street vendors- (1) Retailers or street vendors shall not sell or provide commodities to consumer in carry bags or plastic sheet or multilayered packaging, which are not manufactured and labelled or marked, as per prescribed under these rules.

(2) Every retailers or street vendors selling or providing commodities in, plastic carry bags or multilayered packaging or plastic sheets or like or covers made of plastic sheets which are not manufactured or labelled or marked in accordance with these rules shall be liable to pay such fines as specified under the bye-laws of the local bodies.

15. Explicit pricing of carry bags.- (1) The shopkeepers and street vendors willing to provide plastic carry bags for dispensing any commodity shall register with local body. The local body shall, within a period of six months from the date of final publication of these rules in the Official Gazette of India notification of these rules, by notification or an order under their appropriate state statute or byelaws shall make provisions for such registration on payment of plastic waste management fee of minimum rupees forty eight thousand @ rupees four thousand per month. The concerned local body may prescribe higher plastic waste management fee, depending upon the sale capacity. The registered shop keepers shall display at prominent place that plastic carry bags are given on payment.

(2) Only the registered shopkeepers or street vendors shall be eligible to provide plastic carry bags for dispensing the commodities.

(3) The local body shall utilize the amount paid by the customers for the carry bags exclusively for the sustainability of the waste management system within their jurisdictions.

16. State Level Monitoring Committee.- (1) The State government or the union Territory shall, for the purpose of effective monitoring of implementation of these rules, constitute a State Level Advisory Committee consisting of the following persons, namely:-

- | | | |
|-----|---|------------|
| (a) | the Secretary, Department of Urban Development | - Chairman |
| (b) | Director from State Department of Environment | - Member |
| (c) | Member Secretary from State Pollution Control Board
or Pollution Control Committee | - Member |
| (d) | Municipal Commissioner | - Member |
| (e) | one expert from Local Body | - Member |
| (f) | one expert from Non-Governmental
involved in Waste Management | - Member |

- | | | |
|-----|---|--------------|
| (g) | Commissioner, Value Added Tax or his nominee, | - Member |
| (h) | Sales Tax Commissioner or Officer | - Member |
| (i) | representative of Plastic Association,
Drug Manufacturers Association,
Chemical Manufacturers Association | - Member |
| (j) | one expert from the field of Industry | - Member and |
| (k) | one expert from the field of academic institution | - Member |
| (l) | Director, Municipal Administration | - Convener |

The State Level Advisory Body shall meet at least once in Six Month and may invite experts, if it considers necessary.

17. Annual reports.- (1) Every person engaged in recycling or processing of plastic waste shall prepare and submit an annual report in Form-IV to the local body concerned under intimation to the concerned State Pollution Control Board or Pollution Control Committee by the 30th April, of every year.

(2) Every local body shall prepare and submit an annual report in Form -V to the concerned Secretary-in-charge of the Urban Development Department under intimation to the concerned State Pollution Control Board or Pollution Control Committee by the 30th June, every year.

(3) Each State Pollution Control Board or Pollution Control Committee shall prepare and submit an annual report in Form VI to the CPCB on the implementation of these rules by the 31st July, of every year.

(4) The CPCB shall prepare a consolidated annual report on the use and management of plastic waste and forward it to the Central Government along with its recommendations before the 31st August of every year.

SCHEDULE-I

[See rule 10]

1.	IS / ISO 14851: 1999 Determination of the ultimate aerobic biodegradability of plastic materials in an aqueous medium-Method by measuring the oxygen demand in a closed Respirometer
2.	IS / ISO 14852: 1999 Determination of the ultimate aerobic biodegradability of plastic materials in an aqueous medium-Method by analysis of evolved carbon dioxide
3.	IS / ISO 14853: 2005 Plastics- Determination of the ultimate anaerobic biodegradation of plastic materials in an aqueous system-Method by measurement of biogas production
4.	IS / ISO 14855-1: 2005 Determination of the ultimate aerobic biodegradability of plastic materials under controlled composting conditions-Method by analysis of evolved carbon dioxide (Part-1 General method)
5.	IS / ISO 14855-2: 2007 Determination of the ultimate aerobic biodegradability of plastic materials under controlled composting conditions-Method by analysis of evolved carbon dioxide (Part-2: Gravimetric measurement of carbon dioxide evolved in a laboratory- scale test)
6.	IS / ISO 15985: 2004 Plastics- Determination of the ultimate anaerobic biodegradation and disintegration under high-solids anaerobic digestion conditions- Methods by analysis of released biogas
7.	IS / ISO 16929: 2002 Plastics- Determination of degree of disintegration of plastic materials under defined composting conditions in a pilot - scale test
8.	IS / ISO 17556: 2003 Plastics- Determination of ultimate aerobic biodegradability in soil by measuring the oxygen demand in a Respirometer or the amount of carbon dioxide evolved
9.	IS / ISO 20200:2004 Plastics- Determination of degree of disintegration of plastic materials under simulated composting conditions in a laboratory - scale test

FORM - I

[See rules 13 (2)]

APPLICATION FOR REGISTRATION FOR PRODUCERS or Brand Owners

From:

.....

.....(Name and full address of the occupier)

To

The Member Secretary,

..... Pollution Control Board or Pollution Control Committee

.....

Sir,

I /We hereby apply for registration under rule 9 of the Plastic Waste Management Rules, 2015

1. Producers

PART - A GENERAL		
1.(a)	Name and location of the unit	
(b)	Address of the unit	
(c)	Registration required for manufacturing of: (i) Carry bags; (a) petro- based, (b) Compostable (ii) Multilayered plastics	
(d)	Manufacturing capacity	
(e)	In case of renewal, previous registration number and date of registration	
2.	Is the unit registered with the District Industries Centre of the State Government or Union Territory? If yes, attach a copy.	
3.(a)	Total capital invested on the project	
(b)	Year of commencement of production	
4. (a)	List and quantum of products and by-products	
(b)	List and quantum of raw materials used	
5.	Furnish a flow diagram of manufacturing process showing input and output in terms of products and waste generated including for captive power generation and water.	
6.	Status of compliance with these rules- Thickness – fifty micron (Yes/No)	
PART - B PERTAINING TO LIQUID EFFLUENT AND GASEOUS EMISSIONS		
7.	(a) Does the unit have a valid consent under the Water (Prevention and control of Pollution) Act, 1974 (6 of 1974)? If yes, attach a copy	
	(b) Does the unit have a valid consent under the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981)? If yes, attach a copy	
PART - C PERTAINING TO WASTE		
8.	Solid Wastes or rejects: (a) Total quantum of waste generated (b) Mode of storage within the plant (c) Provision made for disposal of wastes	
9.	Attach or Provide list of person supplying plastic to be used as raw material to manufacture carry bags or plastic sheet of like or multilayered packaging	

10.	Attach or provide list of personnel or Brand Owners to whom the products will be supplied	
11.	Action plan on collecting back the plastic wastes	
		Name and Signature
		Designation
Date :		
Place :		

II Brand Owners:

PART - A GENERAL		
1.	Name, Address and Contact number	
2	In case of renewal, previous registration number and date of registration	
3	Is the unit registered with the District Industries Centre of the State Government or Union Territory? If yes, attach a copy.	
4.(a)	Total capital invested on the project	
(b)	Year of commencement of production	
5. (a)	List and quantum of products and by-products	
(b)	List and quantum of raw materials used	
PART - B PERTAINING TO LIQUID EFFLUENT AND GASEOUS EMISSIONS		
5	Does the unit have a valid consent under the Water (Prevention and control of Pollution) Act, 1974 (6 of 1974)? If yes, attach a copy	
6	Does the unit have a valid consent under the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981)? If yes, attach a copy	
PART - C PERTAINING TO WASTE		
7.	Solid Wastes or rejects: (c) Total quantum of waste generated (d) Mode of storage within the plant (d) Provision made for disposal of wastes	
8.	Attach or Provide list of person supplying plastic material	
9	Action plan on collecting back the plastic wastes	
		Name and Signature
		Designation
Date :		
Place :		

FORM - II

[see rule 13 (3)]

APPLICATION FORM FOR REGISTRATION OF UNITS ENGAGED IN PROCESSING OR RECYCLING OF PLASTIC WASTE

1.	Name and Address of the unit	
2.	Contact person with designation, Tel./Fax /email	

3.	Date of commencement				
4.	No. of workers (including contract labour)				
5.	Consents Validity	a. Water (Prevention & Control of Pollution) Act, 1974; Valid up to _____ b. Air (Prevention & Control of Pollution) Act, 1981; Valid up to _____ c. Authorization ; valid up to			
6.	Manufacturing Process	Please attach a flow diagram of the manufacturing process flow diagram for each product.			
7.	Products and installed capacity of production (MTA)	Products		Installed capacity	
8.	Waste Management:	S. No.	Type	Category	Qty.
	a. Waste generation in processing plastic-waste	(i)			
		(ii)			
		(iii)			
	b. Waste Collection and transportation (attach details)				
	c. Waste Disposal details	S. No.	Type	Category	Qty.
		(i)			
		(ii)			
	d. Provide details of the disposal facility, whether the facility is authorized by SPCB or PCC				
	e. Please attach analysis report of characterization of waste generated (including leachate test if applicable)				
9.	Details of plastic waste proposed to be acquired through sale, auction, contract or import, as the case may be, for use as raw material	(i) Name (ii) Quantity required /year			
10.	Occupational safety and health aspects	Please provide details of facilities			
11.	Pollution Control Measures				
	Whether the unit has adequate pollution control systems or equipment to meet the standards of emission or effluent.	If Yes, please furnish details			
	Whether unit is in compliance with conditions laid down in the said rules.	Yes/No			
	Whether conditions exist or are likely to exist of the material being handled or processed posing adverse immediate or delayed impacts on the environment.	Yes/No			
	Whether conditions exist (or are likely to exist) of the material being handled or processed by any means capable of yielding another material (e.g. leachate) which may possess eco-toxicity.	Yes/No			
12.	Any other relevant information including fire or accident mitigative measures				
13.	List of enclosures as per rule				

Name and Signature

Designation

Date :

Place :

FORM - III

[See rules 13(4)]

APPLICATION FOR REGISTRATION FOR MANUFACTURERS OF PLASTIC RAW MATERIALS

From:

.....

.....(Name and full address of the occupier)

To

The Member Secretary,

..... Pollution Control Board or Pollution Control Committee

.....

.....

Sir,

I/We hereby apply for registration under the Plastic Waste Management Rules, 2011

PART - A GENERAL		
1.(a)	Name and location of the unit	
(b)	Address of the unit	
(c)	In case of renewal, previous registration number and date of registration	
2.	Is the unit registered with the DIC or DCSSI of the State Government or Union Territory? If yes, attach a copy.	
3.(a)	Total capital invested on the project	
(b)	Year of commencement of production	
(c)	List of producers and quantum of raw materials supplied to producers	
Date : Place :		Name and Signature Designation

Form - IV

[See rules 17 (1)]

FORMAT OF ANNUAL REPORT BY OPERATOR OF PLASTIC WASTE PROCESSING OR RECYCLING FACILITY TO THE LOCAL BODY

Period of Reporting:

(1)	Name and Address of operator of the facility	
(2)	Name of officer in-charge of the facility (Telephone/Fax/Mobile/ E-mail)	
(3)	Capacity:	
(4)	Technologies used for management of plastic waste:	
(5)	Quantity of plastic waste received during the year being reported upon along with the source	
(6)	Quantity of plastic waste processed (in tons): - Plastic waste recycled(in tons) - Plastic waste processed (in tons) - Used (in tons)	
(7)	Quantity of inert or rejects sent for final disposal to landfill sites:	
(8)	Details of land fill facility to which inert or rejects were sent	

	for final disposal: - Address -Telephone	
(9)	Attach status of compliance to environmental conditions, if any specified during grant of Consent or registration	

Signature of Operator

Dated :

Place:

Form - V

[See rules 17(2)]

FORMAT FOR ANNUAL REPORT ON PLASTIC WASTE MANAGEMENT TO BE SUBMITTED BY THE LOCAL BODY**Period of Reporting:**

(1)	Name of the City or Town and State:	
(2)	Population	
(3)	Area in sq. kilometers	
(4)	Name & Address of Local body Telephone No. Fax No. E-mail:	
(5)	Total Numbers of the wards in the area under jurisdiction	
(6)	Total Numbers of Households in the area under jurisdiction	
(7)	Number of households covered by door to door collection	
(8)	Total number of commercial establishments and Institutions in the area under jurisdiction -Commercial establishments - Institutions	
(9)	Number of commercial establishments and Institutions covered by door to door collection -Commercial establishments - Institutions	
(10)	Summary of the mechanisms put in place for management of plastic waste in the area under jurisdiction along with the details of agencies involved in door to door collection	
(11)	Attach details of infrastructure put in place for management of plastic waste generated in the area under jurisdiction	
(12)	Attach details of infrastructure required, if any along with justification	
(13)	Quantity of Plastic Waste generated during the year from area under jurisdiction (in tons)	
(14)	Quantity of Plastic Waste collected during the year from area under jurisdiction (in tons)	
(15)	Quantity of plastic waste channelized for recycling during the year (in tons)	
(16)	Quantity of plastic waste channelized for use during the year (in tons)	
(17)	Quantity of inert or rejects sent to landfill sites during the year (in tons)	
(18)	Details of each of facilities used for processing and disposal of plastic waste Facility-I i) Name of operator ii) Address with Telephone Number or Mobile iii) Capacity iv) Technology Used v) Registration Number vi) Validity of Registration (up to)	

Name of the SPCB or PCC	Estimated Plastic Waste generation in Tons Per Annum (TPA)	No. of registered Plastic Manufacturing or Recycling (including multilayer, compostable) units. (Rule 9)			No. of Unregistered plastic manufacturing Recycling units. (in residential or unapproved areas)	Details of Plastic Waste Management (PWM) e.g. Collection, Segregation, Disposal (Co-processing road construction etc.) (Rules 6) (Attach separate)	Partial or complete ban on usages of Plastic Carry Bags (through Executive Order) (Attach copy of notification or executive order)	Status of Marking Labelling on carry bags (Rule 8) [Specify the number of units or not complied]	Explicit Pricing of carry bags (Rule 10)	Details of the meeting of State Level Advisory Body (SLA) along with its recommendations on Implementation (Rule 11)	No. of violations and action taken on non-compliance of provisions of these Rules	Number of Municipal Authority or Gram Panchayat under jurisdiction and Submission of Annual Report to CPCB (Rule 12)
		Plastic units	Compostable Plastic Units	Multilayer Plastic units								

	Facility-II i) Name of operator ii) Address with Telephone Number or Mobile iii) Capacity iv) Technology Used v) Registration Number Validity of Registration (up to)	
(19)	Give details of: Local body's own manpower deployed for collection including street sweeping, secondary storage, transportation, processing and disposal of waste.	
(20)	Give details of: Contractor or concessionaire's manpower deployed for collection including street sweeping, secondary storage, transportation, processing and disposal of waste.	
(21)	Mention briefly, the difficulties being experienced by the local body in complying with provisions of these rules including the financial constraints, if any	
(22)	Whether an Action Plan has been prepared for improving solid waste management practices in the city? If yes (attach copy) Date of revision:	

Signature of CEO or Municipal Commissioner or

Executive Officer or Chief Officer

Date:

Place:

Form-VI

**STATE-WISE STATUS OF IMPLEMENTATION OF PLASTIC WASTE MANAGEMENT
RULES, 2016 FOR THE YEAR ... ANNUAL REPORT Format**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

[F. No. 17-2/2001-HSMD]

BISHWANATH SINHA, Jt. Secy.

[Published In the Gazette of India, Part-II, Section-3, Sub-section (ii)]
Ministry of Environment, Forest and Climate Change

NOTIFICATION

New Delhi, the 29th March, 2016

G.S.R. 317(E).-Whereas the Municipal Solid Wastes (Management and Handling) Rules, 2000 published vide notification number S.O. 908(E), dated the 25th September, 2000 by the Government of India in the erstwhile Ministry of Environment and Forests, provided a regulatory frame work for management of Municipal Solid Waste generated in the urban area of the country;

And whereas, to make these rules more effective and to improve the collection, segregation, recycling, treatment and disposal of solid waste in an environmentally sound manner, the Central Government reviewed the existing rules and it was considered necessary to revise the existing rules with a emphasis on the roles and accountability of waste generators and various stakeholders, give thrust to segregation, recovery, reuse, recycle at source, address in detail the management of construction and demolition waste.

And whereas, the draft rules, namely, the Solid Waste Management Rules, 2015 with a separate chapter on construction and demolition waste were published by the Central Government in the Ministry of Environment, Forest and Climate Change vide G.S.R. 451 (E), dated the 3rd June, 2015 inviting objections or suggestions from the public within sixty days from the date of publication of the said notification;

And Whereas, the objections or suggestions received within the stipulated period were duly considered by the Central Government;

Now, therefore, in exercise of the powers conferred by sections 6, 25 of the Environment (Protection) Act, 1986 (29 of 1986), and in supersession of the Municipal Solid Wastes (Management and Handling) Rules, 2000, except as respect things done or omitted to be done before such supersession, the Central Government hereby notifies the following rules for Management of Construction and Demolition Waste –

1. Short title and commencement.-(1) These rules shall be called the Construction and Demolition Waste Management Rules, 2016.

(2) They shall come into force on the date of their publication in the Official Gazette.

2. Application.-The rules shall apply to every waste resulting from construction, re-modeling, repair and demolition of any civil structure of individual or organisation or authority who generates construction and demolition waste such as building materials, debris, rubble.

3. Definitions -(1) In these rules, unless the context otherwise requires,-

(a) "ACT" means the Environment (Protection) Act, 1986 (29 of 1986);

(b) "construction" means the process of erecting of building or built facility or other structure, or

building of infrastructure including alteration in these entities,;

- (c) **"construction and demolition waste"** means the waste comprising of building materials, debris and rubble resulting from construction, re-modeling, repair and demolition of any civil structure;
- (d) **"de-construction"** means a planned selective demolition in which salvage, re-use and recycling of the demolished structure is maximized;
- (e) **"demolition"** means breaking down or tearing down buildings and other structures either manually or using mechanical force (by various equipment) or by implosion using explosives.
- (f) **"form"** means a Form annexed to these rules;
- (g) **"local authority"** means an urban local authority with different nomenclature such as municipal corporation, municipality, nagarpalika, nagarnigam, nagarpanchayat, municipal council including notified area committee and not limited to or any other local authority constituted under the relevant statutes such as gram panchayat, where the management of construction and demolition waste is entrusted to such agency;
- (h) **"schedule"** means a schedule annexed to these rules;
- (i) **"service provider"** means authorities who provide services like water, sewerage, electricity, telephone, roads, drainage etc. often generate construction and demolition waste during their activities, which includes excavation, demolition and civil work;
- (j) **"waste generator"** means any person or association of persons or institution, residential and commercial establishments including Indian Railways, Airport, Port and Harbour and Defence establishments who undertakes construction of or demolition of any civil structure which generate construction and demolition waste.

(2) Words and expressions used but not defined herein shall have the same meaning defined in the ACT.

(4) Duties of the waste generator -

- (1) Every waste generator shall prima-facie be responsible for collection, segregation of concrete, soil and others and storage of construction and demolition waste generated, as directed or notified by the concerned local authority in consonance with these rules.
- (2) The generator shall ensure that other waste (such as solid waste) does not get mixed with this waste and is stored and disposed separately.
- (3) Waste generators who generate more than 20 tons or more in one day or 300 tons per project in a month shall segregate the waste into four streams such as concrete, soil, steel, wood and plastics, bricks and mortar and shall submit waste management plan and get appropriate approvals from the local authority before starting construction or demolition or remodeling work and keep the concerned

authorities informed regarding the relevant activities from the planning stage to the implementation stage and this should be on project to project basis.

(4) Every waste generator shall keep the construction and demolition waste within the premise or get the waste deposited at collection centre so made by the local body or handover it to the authorised processing facilities of construction and demolition waste; and ensure that there is no littering or deposition of construction and demolition waste so as to prevent obstruction to the traffic or the public or drains.

(5) Every waste generator shall pay relevant charges for collection, transportation, processing and disposal as notified by the concerned authorities; Waste generators who generate more than 20 tons or more in one day or 300 tons per project in a month shall have to pay for the processing and disposal of construction and demolition waste generated by them, apart from the payment for storage, collection and transportation. The rate shall be fixed by the concerned local authority or any other authority designated by the State Government.

(5) Duties of service provider and their contractors -

(1) The service providers shall prepare within six months from the date of notification of these rules, a comprehensive waste management plan covering segregation, storage, collection, reuse, recycling, transportation and disposal of construction and demolition waste generated within their jurisdiction.

(2) The service providers shall remove all construction and demolition waste and clean the area every day, if possible, or depending upon the duration of the work, the quantity and type of waste generated, appropriate storage and collection, a reasonable timeframe shall be worked out in consultation with the concerned local authority.

(3) In case of the service providers have no logistics support to carry out the work specified in sub-rules (1) and (2) , they shall tie up with the authorised agencies for removal of construction and demolition waste and pay the relevant charges as notified by the local authority.

(6) Duties of local authority-The local authority shall,-

(1) issue detailed directions with regard to proper management of construction and demolition waste within its jurisdiction in accordance with the provisions of these rules and the local authority shall seek detailed plan or undertaking as applicable, from generator of construction and demolition waste;

(2) chalk out stages, methodology and equipment, material involved in the overall activity and final clean up after completion of the construction and demolition ;

(3c) seek assistance from concerned authorities for safe disposal of construction and demolition waste contaminated with industrial hazardous or toxic material or nuclear waste if any;

(4) shall make arrangements and place appropriate containers for collection of waste and shall remove at regular intervals or when they are filled, either through own resources or by appointing private operators;

- (5) shall get the collected waste transported to appropriate sites for processing and disposal either through own resources or by appointing private operators;
- (6) shall give appropriate incentives to generator for salvaging, processing and or recycling preferably in-situ;
- (7) shall examine and sanction the waste management plan of the generators within a period of one month or from the date of approval of building plan, whichever is earlier from the date of its submission;
- (8) shall keep track of the generation of construction and demolition waste within its jurisdiction and establish a data base and update once in a year;
- (9) shall device appropriate measures in consultation with expert institutions for management of construction and demolition waste generated including processing facility and for using the recycled products in the best possible manner;
- (10) shall create a sustained system of information, education and communication for construction and demolition waste through collaboration with expert institutions and civil societies and also disseminate through their own website;
- (11) shall make provision for giving incentives for use of material made out of construction and demolition waste in the construction activity including in non-structural concrete, paving blocks, lower layers of road pavements, colony and rural roads.

(7) Criteria for storage, processing or recycling facilities for construction and demolition waste and application of construction and demolition waste and its products-

- (1) The site for storage and processing or recycling facilities for construction and demolition waste shall be selected as per the criteria given in **Schedule I**;
- (2) The operator of the facility as specified in sub- rules (1) shall apply in **Form I** for authorization from State Pollution Control Board or Pollution Control Committee.
- (3) The operator of the facility shall submit the annual report to the State Pollution Control Board in **Form II**.
- (3) Application of materials made from construction and demolition waste in operation of sanitary landfill shall be as per the criteria given in **Schedule II**.

(8) Duties of State Pollution Control Board or Pollution Control Committee-

- (1) State Pollution Control Board or Pollution Control Committee shall monitor the implementation of these rules by the concerned local bodies and the competent authorities and the annual report shall be sent to the Central Pollution Control Board and the State Government or Union Territory or any other State level nodal agency identified by the State Government or Union Territory administration for generating State level comprehensive data. Such reports shall also contain the comments and suggestions of the State Pollution Control Board or Pollution Control Committee with respect to any comments or changes required;

(2) State Pollution Control Board or Pollution Control Committee shall grant authorization to construction and demolition waste processing facility in **Form-III** as specified under these rules after examining the application received in **Form I**;

(3) State Pollution Control Board or Pollution Control Committee shall prepare annual report in **Form IV** with special emphasis on the implementation status of compliance of these rules and forward report to Central Pollution Control Board before the 31st July for each financial year.

(9) Duties of State Government or Union Territory Administration-

(1) The Secretary in-charge of development in the State Government or Union territory administration shall prepare their policy document with respect to management of construction and demolition of waste in accordance with the provisions of these rules within one year from date of final notification of these rules.

(2) The concerned department in the State Government dealing with land shall be responsible for providing suitable sites for setting up of the storage, processing and recycling facilities for construction and demolition waste.

(3) The Town and Country planning Department shall incorporate the site in the approved land use plan so that there is no disturbance to the processing facility on a long term basis.

(4) Procurement of materials made from construction and demolition waste shall be made mandatory to a certain percentage (say 10-20%) in municipal and Government contracts subject to strict quality control.

(10) Duties of the Central Pollution Control Board - (1) The Central Pollution Control Board shall,-

(a) prepare operational guidelines related to environmental management of construction and demolition waste management;

(b) analyze and collate the data received from the State Pollution Control Boards or Pollution Control Committee to review these rules from time to time;

(c) coordinate with all the State Pollution Control Board and Pollution Control Committees for any matter related to development of environmental standards;

(d) forward annual compliance report to Central Government before the 30th August for each financial year based on reports given by State Pollution Control Boards of Pollution Control Committees.

(11) Duties of Bureau of Indian Standards and Indian Roads Congress -The Bureau of Indian Standards and Indian Roads Congress shall be responsible for preparation of code of practices and standards for use of recycled materials and products of construction and demolition waste in respect of construction activities and the role of Indian Road Congress shall be specific to the standards and practices pertaining to construction of roads.

(12) Duties of the Central Government -

- (1) The Ministry of Urban Development, and the Ministry of Rural Development, Ministry of Panchayat Raj, shall be responsible for facilitating local bodies in compliance of these rules;
- (2) The Ministry of Environment, Forest and Climate Change shall be responsible for reviewing implementation of these rules as and when required.

13. Timeframe for implementation of the provisions of these rules -The timeline for implementation of these rules shall be as specified in **Schedule III**:

14. Accident reporting by the construction and demolition waste processing facilities-In case of any accident during construction and demolition waste processing or treatment or disposal facility, the officer in charge of the facility in the local authority or the operator of the facility shall report of the accident in **Form-V** to the local authority. Local body shall review and issue instruction if any, to the in-charge of the facility.

Schedule I

Criteria for Site Selection for Storage and Processing or Recycling Facilities for construction and demolition Waste

[See Rule 7(1)]

- (1) The concerned department in the State Government dealing with land shall be responsible for providing suitable sites for setting up of the storage, processing and recycling facilities for construction and demolition and hand over the sites to the concerned local authority for development, operation and maintenance, which shall ultimately be given to the operators by Competent Authority and wherever above Authority is not available, shall lie with the concerned local authority.
- (2) The Local authority shall co-ordinate (in consultation with Department of Urban Development of the State or the Union territory) with the concerned organizations for giving necessary approvals and clearances to the operators.
- (3) Construction and demolition waste shall be utilized in sanitary landfill for municipal solid waste of the city or region as mentioned at Schedule I of these rule. Residues from construction and demolition waste processing or recycling industries shall be land filled in the sanitary landfill for solid waste.
- (4) The processing or recycling shall be large enough to last for 20-25 years (project based on-site recycling facilities).
- (5) The processing or recycling site shall be away from habitation clusters, forest areas, water bodies, monuments, National Parks, Wetlands and places of important cultural, historical or religious interest.
- (6) A buffer zone of no development shall be maintained around solid waste processing and disposal facility, exceeding five Tonnes per day of installed capacity. This will be maintained within the

total area of the solid waste processing and disposal facility. The buffer zone shall be prescribed on case to case basis by the local authority in consultation with concerned State Pollution Control Board.

- (7) Processing or recycling site shall be fenced or hedged and provided with proper gate to monitor incoming vehicles or other modes of transportation.
- (8) The approach and or internal roads shall be concreted or paved so as to avoid generation of dust particles due to vehicular movement and shall be so designed to ensure free movement of vehicles and other machinery.
- (9) Provisions of weigh bridge to measure quantity of waste brought at landfill site, fire protection equipment and other facilities as may be required shall be provided.
- (10) Utilities such as drinking water and sanitary facilities (preferably washing/bathing facilities for workers) and lighting arrangements for easy landfill operations during night hours shall be provided and Safety provisions including health inspections of workers at landfill sites shall be carried out made.
- (11) In order to prevent pollution from processing or recycling operations, the following provisions shall be made, namely:
 - (a) Provision of storm water drains to prevent stagnation of surface water;
 - (b) Provision of paved or concreted surface in selected areas in the processing or recycling facility for minimizing dust and damage to the site.
 - (c) Prevention of noise pollution from processing and recycling plant:
 - (d) provision for treatment of effluent if any, to meet the discharge norms as per Environment (Protection) Rules, 1986.
- (12) Work Zone air quality at the Processing or Recycling site and ambient air quality at the vicinity shall be monitored.
- (13) The measurement of ambient noise shall be done at the interface of the facility with the surrounding area, i.e., at plant boundary.
- (14) The following projects shall be exempted from the norms of pollution from dust and noise as mentioned above:

For construction work, where at least 80 percent construction and demolition waste is recycled or reused in-situ and sufficient buffer area is available to protect the surrounding habitation from any adverse impact.
- (15) A vegetative boundary shall be made around Processing or Recycling plant or site to strengthen the buffer zone.

Schedule II

Application of materials made from construction and demolition waste and its products.

[See Rule 7(3)]

Sl. No.	Parameters	Compliance Criteria
1	<p>Drainage layer in leachate collection system at bottom of Sanitary Landfill</p> <p>Gas Collection Layer above the waste at top of Sanitary Landfill and</p> <p>Drainage Layer in top Cover System above Gas Collection Layer of Sanitary Landfill</p> <p>For capping of sanitary landfill or dumpsite, drainage layer at the top</p>	<p>Only crushed and graded hard material (stone, concrete etc.) shall be used having coarse sand size graded material (2mm – 4.75mm standard sieve size).</p> <p>Since the coarse sand particles will be angular in shape (and not rounded as for riverbed sand), protection layers of non-woven geo-textiles may be provided, wherever required, to prevent puncturing of adjacent layers or components.</p>
2	Daily cover	<p>Fines from construction and demolition processed waste having size up to 2 mm shall be used for daily cover over the fresh waste.</p> <p>Use of construction and demolition fines as landfill cover shall be mandatory where such material is available. Fresh soil (sweet earth) shall not be used for such places and borrow-pits shall not be allowed. Exception – soil excavated during construction of the same landfill.</p> <p>During hot windy days in summer months, some fugitive dust problems may arise. These can be minimised by mixing with local soil wherever available for limited period.</p>
3	Civil construction in a sanitary landfill	Non-structural applications, such as kerb stones, drain covers, paving blocks in pedestrian areas.

Schedule III
Timeframe for Planning and Implementation
[See Rule 13]

Sl. No.	Compliance Criteria	Cities with population of 01 million and above	Cities with population of 0.5-01 million	Cities with population of less than 0.5 million
1	Formulation of policy by State Government	12 months	12 months	12 months
2	Identification of sites for collection and processing facility	18 months	18 months	18 months
3	Commissioning and implementation of the facility	18 months	24 months	36 months
4	Monitoring by SPCBs	3 times a year – once in 4 months	2 times a year – once in 6 months	2 times a year – once in 6 months

**The time Schedule is effective from the date of notification of these rules.*

FORM – I
See [Rule 7 (2)]
Application for obtaining authorisation

To,
The Member Secretary

_____ Name of the local authority or Name of the agency :
appointed by the municipal authority

Correspondence address Telephone No. Fax No.	
Nodal Officer and designation (Officer authorized by the competent authority or agency responsible for operation of processing or recycling or disposal facility)	
Authorisation applied for (Please tick mark)	Setting up of processing or recycling facility of construction and demolition waste
Detailed proposal of construction and demolition waste processing or recycling facility to include the following Location of site approved and allotted by the Competent Authority. Average quantity (in tons per day) and composition of construction and demolition waste to be handled	

<p>at the specific site.</p> <p>Details of construction and demolition waste processing or recycling technology to be used.</p> <p>Quantity of construction and demolition waste to be processed per day.</p> <p>Site clearance from Prescribed Authority.</p> <p>Salient points of agreement between competent authority or local authority and operating agency (attach relevant document).</p> <p>Plan for utilization of recycled product.</p> <p>Expected amount of process rejects and plan for its disposal (e.g., sanitary landfill for solid waste).</p> <p>Measures to be taken for prevention and control of environmental pollution.</p> <p>Investment on project and expected returns.</p> <p>Measures to be taken for safety of workers working in the processing or recycling plant.</p> <p>Any preventive plan for accident during the collection, transportation and treatment including processing and recycling should be informed to the Competent Authority (Local Authority) or Prescribed Authority</p>	
Date:	Signature of Nodal Officer

Form-II

See [Rule (7) (3)]

Format for Issue of Authorisation to the Operator

File No.: _____

Date : _____

To,

Ref : Your application number _____ **Dt.**

The _____ State Pollution Control Board or Pollution Control Committee after examining the proposal hereby authorizes _____ having their administrative office at _____ to set up and operate construction and demolition waste processing facility at _____ on the terms and conditions (including the standards to comply) attached to this authorisation letter.

1. The validity of this authorisation is till _____. After expiry of the validity period, renewal of authorisation is to be sought.

2. The _____ State Pollution Control Board or Pollution Control Committee may, at any time, for justifiable reason, revoke any of the conditions applicable under the authorisation and shall communicate the same in writing.

3. Any violation of the provision of the construction and demolition Waste Management Rules, 2016 shall attract the penal provision of the Environment (Protection) Act, 1986 (29 of 1986).

Date:

Place:

(Member Secretary)

State Pollution Control Board/
Pollution Control Committee

Form –III

See [Rule 8(2)]

Format of Annual Report to be submitted by Local Authority to the State Pollution Control Board

- (i) Name of the City or Town.....
- (ii) Population.....
- (iii) Name and address of local authority or competent authority

Telephone No :

Fax :

Email ID:

Website:

- (iv) Name of In-charge or Nodal Officer dealing with construction and demolition wastes management with designation

1. Quantity and composition of construction and demolition waste including any deconstruction waste

- (a) Total quantity of construction and demolition waste generated during the whole year in metric ton

Any figures for lean period and peak period generation per day

Average generation of construction and demolition waste (TPD)

Total quantity of construction and demolition waste collected per day

Any Processing / Recycling Facility set up in the city

Status of the facility

- (b) Total quantity of construction and demolition waste processed / recycled (in metric ton)

Non-structural concrete aggregate :

Manufactured sand :

Ready-mix concrete (RMC) :

Paving blocks :

GSB :

Others, if any, please specify :

(c) Total quantity of Construction & Demolition waste disposed by land filling without processing (last option) or filling low lying areas

No of landfill sites used :
 Area used :
 Whether weigh-bridge : Yes No
 facility used for quantity estimation?

(d) Whether construction and demolition waste used in sanitary landfill (for solid waste) as per Schedule III
 : Yes No

2. Storage facilities

(a) Area or location or plot or societies covered for collection of Construction and Demolition waste

(b) No. of large Projects (including roadways project) covered

(c) Whether Area or location or plot or societies collection is Practiced (if yes, whether done by Competent Authority or Local Authority or through Private Agency or Non-Governmental Organization) :

(d) Storage Bins :

Specifications (Shape & Size)	Existing Number	Proposed for future
----------------------------------	--------------------	------------------------

(i) Containers or receptacle (Capacity) :
 (ii) Others, please specify :

(e) Whether all storage bins/collection spots are attended for daily lifting : Yes No

(e) Whether lifting of Construction & Demolition Waste from Storage bins is manual or mechanical (please tick mark) please specify mode : Manual Mechanical Others, and equipment used (specify equipment)

3. Transportation

Truck :
 Truck-Hydraulic :
 Tractor-Trailer :
 Dumper-placers :
 Tricycle :

Existing Actually Required/Proposed number

Refuse-collector :

Others (Please specify) :

4. Whether any proposal has been made to improve Construction and Demolition waste management practices

5. Have any efforts been made to involve PPP for processing of Construction & Demolition waste :

If yes, what is (are) the technologies being used, such as:

Processing / recycling Technology	(Quantity to be processed)	Steps taken
Dry Process :		
Wet Process :		
Others, if any, Please specify :		

6. What provisions are available to check unauthorized operations of:

Encroachment on river bank or wet bodies :

Unauthorized filling of low line areas :

Mixing with solid waste :

Encroachment in Parks, Footpaths etc. :

7. How many slums are provided with construction and demolition waste receptacles facilities:

8. Are municipal magistrates appointed

for taking penal action for non-compliance with these rules: Yes No

[If yes, how many cases registered & settled during last three years (give year wise details)]

Dated:
Commissioner

Signature of Municipal

Form -IV

See [Rule (8)(3)]

Format of Annual Report to be submitted by the State Pollution Control Board / Committees to the Central Pollution Control Board

To,

The Chairman,
Central Pollution Control Board,
Parivesh Bhawan, East Arjun Nagar,
Delhi-110032

1. Name of the State/Union territory :
2. Name & address of the State
Pollution Control Board/Pollution
Control Committee :
3. Number of municipal authorities
responsible for management of municipal
solid wastes in the State/Union territory
under these rules :
4. A Summary Statement on progress made
by municipal authorities in respect of
implementation of **Schedule III]** : Please attach as Annexure-I
5. A Summary Statement on progress made by
municipal authorities in respect of
implementation of **Schedule IV** : Please attach as Annexure-II

Date:

**Chairman or the Member Secretary
State Pollution Control Board/
Pollution Control Committee**

Place:

Form -V
See [Rule14]
Accident reporting

1. Date and time of accident :
2. Sequence of events leading to accident :
3. The type of construction and demolition waste involved in accident :
4. Assessment of the effects of the accidents
a. on traffic, drainage system and the environment :
5. Emergency measures taken :
6. Steps taken to alleviate the effects
a. of accidents :
7. Steps taken to prevent the recurrence
a. of such an accident :
8. Regular monthly health checkup of workers at

- a. Processing / recycling site shall be made
9. Any accident during the collection,
- a. transportation and treatment including
 - b. processing and recycling should be informed
 - c. to the Competent Authority (Local Authority) or
 - d. Prescribed Authority

Date :
Place:

Authorized Signatory
Designation

[18-6/2014-HSMD]
Bishwanath Sinha, Joint Secretary



**Ministry of Housing
and Urban Affairs**
Government of India



BULK SOLID WASTE GENERATORS

A Step by Step Guidance for Urban Local Bodies to implement
the Solid Waste Management Rules, 2016

November, 2017



HARDEEP S PURI

Hon'ble Minister of State

(Independent Charge)

Ministry of Housing & Urban Affairs

MESSAGE FROM HON'BLE MINISTER OF STATE (INDEPENDENT CHARGE)

As a befitting tribute to the Father of Nation on 2nd October 2019, our government has taken the ambitious pledge to achieve cleanliness with 100% scientific disposal of solid waste through best solid waste management practices under the Swachh Bharat Mission (SBM).

We have taken up multi-pronged strategies for making the mission successful and turning it into a people's movement. Three years since launch, it is heartening to note that the Swachh Bharat Mission has caught the imagination of citizens.

The increased participation of individual citizens and organizations in thematic cleanliness drives and voluntary 'Swachhata' activities, is slowly but surely making the Mission a 'Jan Andolan'.

Waste management is the responsibility of every citizen and their efforts will help us in achieving the target of 100% effective waste management. In this context, the Bulk Generators of waste can play a significant role in improving civic services.

I am pleased to see the Guide Book for Urban Local Bodies (ULBs) on Bulk Solid Waste Generator's Compliance of Solid Waste Management Rules 2016 which lays out the roles and responsibilities of bulk waste generators and handholds the ULBs in giving effect to the Rules. I am sure that this will go a long way in improving cleanliness and contribute towards a truly 'Swachh Bharat'.



DURGA SHANKER MISHRA

Secretary

Ministry of Housing & Urban Affairs

MESSAGE FROM **SECRETARY- HOUSING AND URBAN AFFAIRS**

With the Swachh Bharat Mission (Urban) completing 3 years since launch, it becomes imperative for us to expedite efforts towards making our urban areas clean, healthy and livable. Scientific management of solid waste is often the prime area of intervention for cleanliness in urban areas.

For Swachh Bharat Mission to be a continuing success, it is important that the Urban Local Bodies (ULBs) and the Society work together for attaining the common goal of cleanliness. The Bulk Generators of Solid Waste are tasked under the Solid Waste Management (SWM) Rules 2016 to process waste in their own premises, which goes a long way in strengthening the ULBs efforts. Since this is a new area of civic responsibility, Ministry felt the need for bringing out a guide book detailing the steps and processes for the ULBs to give effect to the Bulk Generators responsibilities under the SWM Rules 2016. Also, the bulk generators themselves need to be well informed on how to comply with the Rules.

Accordingly, the Ministry of Housing and Urban Affairs is releasing this Guidance Book for ULBs on Bulk Solid Waste Generators' Compliance with SWM Rules 2016, which lays out roles and responsibilities of bulk waste generators and provides handholding for ULBs in giving effect to the Rules. It is estimated that roughly 30% waste is from bulk generator premises. As such, I am confident that this guide book will have positive impact on cleanliness and boost the Swachh Bharat Mission.

PREFACE

Bulk generators contribute substantial amount of waste-nearly 30-40% of the daily waste. According to the Solid Waste Management Rules 2016, Bulk Waste Generators are responsible for managing their own waste. Municipalities have to identify different bulk generators in accordance as defined in SWM Rules 2016. The rules mandate effective waste management by bulk waste generators and empower ULBs to ensure compliance with SWM Rules 2016.

To comply with the rules, ULBs are required to identify the bulk waste generators, prepare and notify byelaws, impose user fees and penalties, handhold bulk generators for implementation and ensuring compliances with various duties as mentioned in the rules. The process could be cumbersome for ULBs without a guide book for compliance by bulk generators. To simplify the process, Ministry of Housing and Urban Affairs is releasing this guide book which provides step by step advice on various steps that need to be followed by ULBs. The guide also presents model documents which can be referred and used by ULBs in the process of Bulk Generator compliance.

**Bulk Solid Waste Generators Compliance –
A Step by Step Guidance for
Urban Local Bodies to implement the
Solid Waste Management Rules, 2016**

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1. BACKGROUND

The Government of India has launched the Swachh Bharat Mission on 2nd October, 2014 with the target to make the country clean by 2nd October, 2019. Various measures have been taken to achieve the target in time bound manner. Solid Waste Management is an important component of the Mission and is to be implemented in all notified Urban Local Bodies. Within solid waste management domain, bulk waste generators can play a significant role in achieving above target.

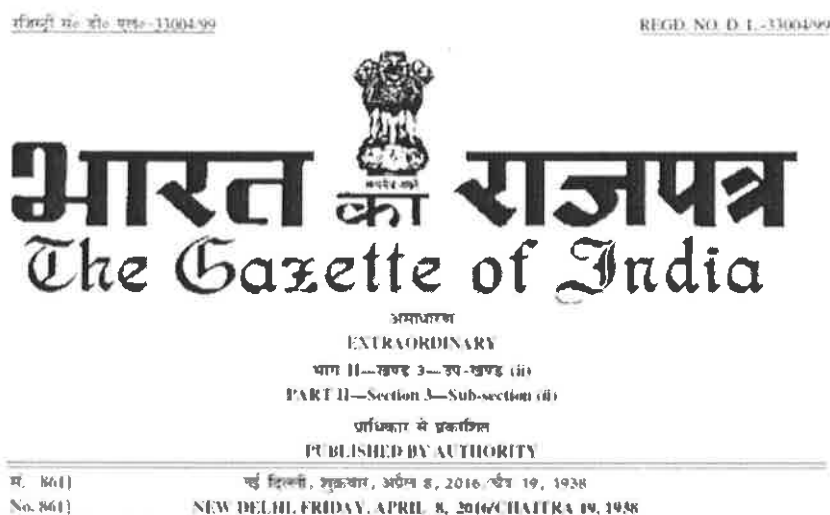
Realizing the importance of Bulk Waste Generators in management of solid waste, the Government of India has revamped the Municipal Solid Waste (Management and Handling) Rules 2000 and notified the Solid Waste Management Rules, 2016 on April 8, 2016. The Rules mandate for effective solid waste management by bulk waste generators also. Further, they lay emphasis on the duties and responsibilities of waste generators including bulk waste generators with timeframe for implementation and monitoring by the Government/ ULB.

1.1 Definition of Bulk Generator

As per Solid Waste Management Rules 2016, "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 etc having an average waste generation rate exceeding 100kg per day (of all waste streams put together).

1.2 Various indicative categories of Bulk Waste Generators

The broad categories of the bulk generators as per SWM Rules, 2016 as well as their duties assigned are as below:



4 Duties of waste generators.- (1) Every waste generator shall:-

(16) 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.

Residential	<ul style="list-style-type: none"> • The cooperative group housing society having more than 300 flats, markets* • Central Government Residential colonies* • RWAs
Commercial	<ul style="list-style-type: none"> • Restaurant(s) with more than 200 seating capacity* • All 4 and 5 Star Hotel(s)* • Shopping Complex(es)/ Mall(s) having built-up area of more than 5,000 sq.mts.*
Government, Public Sector or Private Bodies	<ul style="list-style-type: none"> • Central Government Ministries, Departments and Undertakings • State Government Ministries, Departments and Undertakings • Local Bodies • Public Sector Undertakings • Private Sector Offices, Complexes, Buildings
Social Infrastructure	<ul style="list-style-type: none"> • Hospital(s) / Nursing Home(s) which have more than 200 beds whether private or Government* • Places of Worship • Stadia and Sports Complexes • Clubs • Marriage Halls • Recreation/Entertainment Complexes • Hostel/Schools, Colleges, Universities, Educational & Training Institutions having more than 500 students for accommodation* • Railway Stations / Bus Stations/ Airports etc.

*Bulk Garbage Generators as defined by National Green Tribunal (NGT) in Court Order of Original application No. 199 of 2014 in the matter of Almitra H. Patel Vs UOI and application no. 281 of 2016 in the matter of Kudrat Sandhu Vs Govt. of NCT of Delhi & Govt. of India

1.3 Duties of Bulk Waste Generator as per SWM Rules, 2016:

- Segregate and store the waste generated in three separate streams namely – (i) bio-degradable (wet waste); (ii) non-biodegradable (dry waste); and (iii) domestic hazardous wastes in suitable bins/containers. Details of various components of municipal solid waste categories in above three categories can be seen at Annexure-1.
- Process wet waste (Bio-degradable waste) to the extent feasible in premises itself and develop a system of reuse of products of processing, that is, compost or biogas etc;
- Handover segregated dry wastes to ULB waste collector or agency authorized by ULB to collect waste on its behalf as per the direction or notification by the local authorities from time to time;
- Handover segregated domestic hazardous wastes to authorised waste pickers or waste collectors as per the direction or notification by the local authorities from time to time;
- 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 (such as newspaper, paper etc) and handover separately to waste collector or place the same in the bin meant for dry waste or non- bio-degradable waste;
- Store horticulture waste and garden waste generated from premises separately in own premises and carry out composting in compost pits within the premises. In case of non-availability of land, dispose off as per the directions of the urban local body from time to time;
- Store separately Construction & Demolition waste generated in own premises and dispose off as per the Construction & Demolition Waste Management Rules, 2016
- In addition to above, bulk waste generators are required not to mix E-waste - it should be separately stored as and when generated and should be handed over to recycling chain.

2. STEP BY STEP GUIDANCE TO URBAN LOCAL BODIES TO FACILITATE BULK WASTE GENERATORS TO COMPLY WITH THE DUTIES ASSIGNED AS PER SWM RULES, 2016

2.1 STEP 1: Prepare and notify Byelaws

- The Urban Local body (ULB) will set up a bulk waste generator monitoring cell headed by an Officer designated by the Commissioner/ Chief Officer within the solid waste management department of the ULB.
- ULB needs to bring out adequate provisions for Solid Waste Management, cleanliness and anti-littering in their byelaws. Guidance may be taken from the Draft Rules/ Byelaws published by SBM in Sept 2016. The byelaws must clearly state the User Charges/ Fees along with Fines/ Penalties for non-compliance and related operational issues.
- Further, Byelaws should clearly bring out provisions of SWM Rules 2016 and duties and responsibilities of bulk waste generators and the necessary instructions for them to comply with SWM Rules, 2016. ULBs can adopt stringent norms over and above SWM Rules, 2016 depending on feasibility in its area and in accordance with their vision.
- Even if existing byelaws do not have adequate provisions as mentioned above, ULBs can go ahead with implementing the duties of bulk waste generators in compliance to SWM Rules 2016 and in parallel, modify the existing byelaws.

2.2 STEP 2: Identification of bulk waste generators: Issue Public/ Individual Notices/ Conduct field survey

- Issue Public Notice by the Urban Local Body informing public that the provisions of the SWM Rules, 2016 for Bulk Generators which came into effect from 08.04.2016, is mandated to be complied within one year. Therefore, all bulk waste generators are instructed by ULB to install such onsite waste management facilities within 60 days from the date of publishing of the public notice. Sample Public Notice by ULB for bulk waste generators is given at Annexure-2. While issuing public/individual notices, the option for self-declaration as non-bulk generator shall also be provided as per sample at Annexure-3.
- In addition, ULB to carry out field survey as per its own records to identify Individual bulk waste generators and issue notices to them as per sample placed at Annexure 4 instructing them to comply with SWM Rules 2016 provisions.

2.3 STEP 3: Bulk Waste Generator Identification/Verification Process

The Officers and staff of bulk waste generator monitoring cell will carry out identification/ verification of bulk generators identified through field survey as mentioned in step 2.

It will be done as intensive drive for a month to cover all likely bulk generators.

Later, random verification will continue. If any self-declaration is found untrue, the occupier of the premises will be liable to bulk generator charges/fees from the date of effect as per public notice and in addition, another 100% as penal charges.

Commissioner/ Chief Officer may give authority to Monitoring Cell officials to enter bulk waste generator's premises to search for waste and weigh it on Weighing scales/ benches if need so arises to identify a bulk waste generator.

- The verification shall be done on 3 separate days, during the 1st, 2nd and 3rd week of the month respectively. Verification shall not be done during the 4th/last week of the month.
- The days chosen for verification shall be First- a Sunday/ Gazetted holiday (this will be sufficient to verify self-declarations, to affirm or cancel them); Second- a day before such Sunday/holiday and Third- any working day.
- Visit the premises for verification at time of closing of market/ business or after dinner time or early morning in case of residential complexes
- For de-listing bulk waste generator from ULB list, at least 2 such verifications must show waste is less than 100kg/day and 1 verification may fail by not more than 10 kg/day (i.e., 110 kg/day total). As per this formula, de-listing can be done.
- If claim is found correct, no charges shall be collected & Certificate issued (valid till next verification by the Urban Local Body)
- If certificate (as non-bulk waste generator) fails, penal charges equal to the previous month user fees/ charges shall be levied, in addition to the regular monthly bill.
- ULB has to monitor waste generation from all target premises at least once in 6 to 12 months, preferably during the festival season.
- The option for application for de-classification from bulk generator category at a later date may also be given. (sample at Annexure-5)

2.4 STEP 4: Handholding the Bulk Waste Generators

- The ULB shall extend all necessary technical support and handholding, except financial assistance, to bulk waste generators to set up decentralized waste management facility.

- ULBs may support for utilization of resources/products like compost, gas, recyclable waste if bulk waste generator is not able to utilize these or not able to link up with authorized agencies.
- The ULB can also support by collecting the segregated waste and inert for further processing and disposal, as per its practice.
- The RWAs can jointly set up a decentralized treatment unit or can outsource the waste to any private party to manage their waste on their behalf.
- A checklist for ULBs for periodic monitoring of bulk waste generator's premises is placed at Annexure- 6.
- An indicative table of per capita waste generation by various bulk waste generator is given at Annexure-7 for identifying Bulk Waste Generator.
- A case study of Bruhat Bangalore Mahanagara Palike (BBMP) on Bulk Waste Generators is attached at Annexure- 8, which has successfully implemented provisions of Solid Waste Management Rules 2016, for guidance of ULBs
- The ULB shall be responsible for guiding bulk waste generators with feasible and cost effective on site waste treatment facility. ULB will provide a list of waste treatment options with capital and O&M cost along with the list of vendors as attached at Annexure- 9. The list of vendors is for guidance and bulk generator/ ULB may further verify their technical and financial capacities before awarding work order for any onsite waste processing.

Timelines for Implementation of Bulk Generator responsibility under SWM Rules 2016:

S. No.	Bulk Generator Implementation Activities	Time
1.	Preparatory time -Approval of Bulk Generator Notice, Self-Declaration Formats / de-listing, Bye-laws for user fees/ charges and fines/ penalties (where user charges/ penal provision are not in municipal byelaws same should be incorporated in parallel following due procedures) -Verification Cell- setup & procedure	1-7 days
2.	Public Notice issued	8 th day
3.	Survey and identification of bulk waste generators including examination of claims on self-declaration/ de-listing/ random verification etc.	9-30 days
4.	Procuring, Installation & commissioning/ setting up of decentralized waste management system in bulk waste generator premises	Within 60 Days
5.	Final Date for bulk waste generator to ensure compliance of SWM Rules, 2016	61 st day
6.	Monitoring & Evaluation	Continuous

3. ANNEXURE-1: EXAMPLES OF WASTE TYPES:

Biodegradable/ Wet Waste	Non-biodegradable / Dry/ Recyclable Waste	Domestic Hazardous Waste
<ul style="list-style-type: none"> • Kitchen Waste including: tea leaves, egg shells, fruits and vegetable peels • Meat and Bones • Garden and Leaf litter, including flowers • Soiled paper • House dust after cleaning • Coconut shells • Ashes 	<ul style="list-style-type: none"> • Newspaper • Paper, books and magazines • Glass • Metal objects and wire • Plastics • Cloth Rags • Leather • Rexene • Wood/Furniture • Polystyrene/ Packaging material 	<ul style="list-style-type: none"> • Aerosol cans • Batteries • Bleaches and household kitchen and drain cleaning agents and its container • Car batteries, oil filters and car care products and consumables • Chemicals and solvents and their container • Cosmetic items, chemical based insecticides and their containers • Paints, oils, lubricants, glues, thinners, and their container • Pesticides and herbicides and their container • Photographic audio/video tapes and their containers, • chemicals • Styrofoam and soft foam packaging of furniture, packaging and equipment • Thermometers and mercury-containing products • Discarded medicine and disposable syringes

Lists not exhaustive

4. ANNEXURE-2: SAMPLE PUBLIC NOTICE

Date:

(Name of the Urban Local Body)

Address:

Phones:

Email:

Website:

Whereas the Solid Waste Management (SWM) Rules 2016 notified by the Government on 8.4.2016 mandate the Bulk Generators of municipal waste to carry out certain waste management functions by themselves, the _____ (name of the urban local body), notwithstanding any other rule/provision, hereby directs all Bulk Generators of municipal solid waste defined as generating more than 100 kg of waste per day in total from the identified premises/property/establishment to implement the provisions of the SWM Rules 2016 and the Byelaws thereof notified by the urban local body (available at website at _____) not later than 60 days (by date.....) from the date of this notice, including segregation into 3 (three) categories/streams (Biodegradable, Non-biodegradable and Domestic hazardous waste) at source; storage within premises for door to door collection and in-premises processing and treatment of biodegradable waste. Detailed instructions are available on urban local body website at _____

All RWAs, Market Association Members, Hotels and Restaurants etc as defined will be classified as Bulk Generators unless they submit within the notice period, a self- declaration of generating less than 100 kg of waste from their premises. Such self-declaration will be subject to verification and penal costs (up to Rs._____) if found untrue. Such self-declarations shall be submitted to the urban local body within 20 days (by date.....) of this notice for enabling verification. Self-declarations sent/submitted after the due date will be summarily rejected.

Any violation of the SWM Rules 2016 for bulk generators after 60 days of this notice (after date) will attract penal charges/fines (up to Rs._____) as stated in the byelaws of the urban local body.

The declaration if found false at a later date will attract penalties as per the byelaws of the urban local body.

Place:

(signed)

Authorised Signatory

----- Urban Local Body

5. ANNEXURE-3: SELF DECLARATION FORMAT

Self-Declaration Format

I/We/M/s.** _____ located at premises _____
 _____ (address) _____ (phone) _____ (mobile) _____
 (e-mail) am/are a member of _____ RWA/ Market Association/ Hotel/ Restaurant/
 _____ (mention trade) and holder of _____ urban local body
 occupancy certificate/ Property Tax Assessment No. _____ or trade license
 no. _____. The business activity at the premises is _____ or
 the premises is used for multipurpose activities/gatherings / domestic / commercial purposes.

I/We/M/s. _____ hereby self-declare that the total daily waste
 generated from our premises is 100 kg or less, hence not a bulk generator.

I/We/M/s. _____ understand that the _____ urban local body is free to
 enter the premises to check and verify the quantity of waste generated in the premises. During any
 such verification, if more than 100 kg waste is found generated, this self-declaration becomes void
 and I/we/M/s. can be categorized as bulk generator and _____ urban local body can impose
 penal charges as applicable from the date of effect for bulk generator's responsibilities as per public
 notice.

(Authorized signatory)
 For the Premises Occupier/Owner

To
 _____ Urban Local Body

** strike out whatever not applicable

Acknowledgement (please fill-up your details)

Received a self-declaration from Mr/Ms./M/s. ** _____
located at premises _____ (address) _____ (phone)
_____ (mobile) _____ (e-mail), a member of _____ RWA/
Market Association/Hotel/Restaurant/Establishment _____ (mention trade) and
holder of _____ urban local body occupancy certificate/Property Tax
Assessment No. _____ or trade license no. _____, stating that
they are not a bulk generator of waste.

This acknowledgement serves as certificate of exemption from Bulk Generator category and will be
exchanged with a Verification certificate to be issued in due course or cancelled.

Date & Stamp of Urban Local Body:
(Authorized signatory)

** strike out whatever not applicable

6. ANNEXURE-4: INDIVIDUAL NOTICES TO BULK GENERATORS

Notice Format

_____ Urban Local Body

To

 RWA/ Market Association/
 Hotel/Restaurant/Establishment/
 Institution/Building/Place

Subject: Categorization as Bulk Waste Generator for implementing provisions of SWM Rules, 2016- reg.

Sir/Madam/Messers,

Considering the activities/ business carried out at your premises, the competent authority has designated you as Bulk Waste Generator generating more than 100 kg waste/day. Accordingly, you are directed to comply with the provisions of the SWM Rules, 2016 and implement segregation of waste at source, segregated storage within premises, facilitate segregated door-to-door collection and processing & treatment of bio-degradable waste within premises or processing tied-up with a service provider. You will also attract the provisions of bye-laws for municipal solid waste management and costs/fees/charges thereof.

In case you claim not to be a bulk generator you are required to submit a self-declaration to that effect within 20 days otherwise it will be deemed that you have no objection to be classified as a Bulk Generator.

The self-declaration proforma is attached which should be filled up and submitted to the Urban Local Body's designated officers and acknowledgement obtained, which will serve as "Certificate of Non-Bulk Generator" till a verification certificate is issued. In case your self-declaration is found untrue, the same will be cancelled and penal costs/ charges @ double the applicable charges will be levied for the period from effective date to date of verification.

Signed

Authorised Signatory

for the Municipal Commissioner/ Chief Officer

_____ Urban Local Body

7. ANNEXURE-5: APPLICATION FOR DE-LISTING AS BULK GENERATOR

(To be used after 6 months of successful implementation of Bulk Generator SWM Rules)

Application for de-listing as Bulk Generator

To

Urban Local Body

Subject: Application for de-listing as Bulk Generator

I/We/M/s. ** _____ located at premises _____
 _____ (address) _____ (phone) _____ (mobile) _____
 (e-mail) am/are a member of _____ RWA/ Market Association/ Hotel/ Restaurant/
 _____ (mention trade) and holder of _____ Urban local body
 occupancy certificate/ Property Tax Assessment No. _____ or trade license
 no. _____. The business activity at the premises is _____ or
 the premises is used for multipurpose activities/gatherings / domestic / commercial purposes.

We have been listed as Bulk Generator by you. But due to better waste management and reduction, we are now consistently generating less than 100 kg/ day of waste. It is requested to verify the waste generated at our premises and de-list us from Bulk Generator category. We will co-operate with the officials verifying our claim without any notice at any time of our business.

We undertake to pay additional one month of our present SWM charges/fees as penalty if our claim fails on verification.

(Authorised signatory)

** strike out whatever not applicable

8. ANNEXURE-6: CHECKLIST FOR PERIODIC VERIFICATION OF PREMISES OF BULK WASTE GENERATORS BY URBAN LOCAL BODY

S No	Activities	Yes / No
1.	Is bulk waste generator segregating the municipal solid waste as per SWM Rules, 2016	
2.	Are all the Segregated wastes being stored in separate bins, containers or bags etc.?	
3.	Has the bulk waste generator demarcated a separate space for the segregation, storage and decentralised processing of municipal solid waste in society, RWA, gated community, market association, etc.?	
4.	Is the bulk waste generator storing separately the Construction and Demolition waste?	
5.	Is the bulk waste generator storing the Garden and Horticulture waste separately?	
6.	Is the bulk waste generator burning any waste?	
7.	Is the bulk waste generator burying any waste?	
8.	Is the bulk waste generator paying user fee/charges for solid waste management	
9.	Is the bulk waste generator intimating the urban local body / authority in case of organizing an event or gathering of more than 100 persons at any of unlicensed premises?	
10.	Is the bulk waste generator handing over recyclable waste to the authorised waste picker or recycler?	
11.	Is the bulk waste generator processing bio-degradable (wet) waste in own premises?	
12.	If so, what is the process – composting or bio-methanation or any other? Please mention.	
13.	Is the bulk waste generator handing over the residual waste from process to the waste collector or agency designated by Urban local authority?	
14.	Is the waste collection organised by RWA, Association?	
15.	If so, is the waste collector an informal rag picker / waste collector?	
16.	Is the Payment to the waste collector made by the association or by the waste generators/premises owners directly?	
17.	Whether the association/complex is using waste collection personnel provided by the Urban local body?	
18.	Is the RWA /Association organizing IEC activities for proper management of municipal solid waste?	
19.	Has the bulk waste generator tied up for authorized agency for collection of segregated waste?	

9. ANNEXURE-7: USER CHARGES/FEEES FOR BULK GENERATOR FOR SOLID WASTE MANAGEMENT SERVICES

Following the Polluter Pays Principle, ULBs need to make efforts to estimate waste generation by each entity and levy adequate user charges to recover cost towards collection, segregation, transportation and processing & disposal.

The below mentioned is an indicative list containing waste generated per unit. ULB can notify user charges considering the prevailing factors in the cities and the guidance given below.

User charges are to be levied on the basis of waste generated by the bulk generator.

Indicative waste generation for different category of bulk users may be considered as under (if no actual weighment is available) for estimation of waste generation:

S. No.	Category of Bulk Generator	Criteria	Per unit waste generation (in gms)
1.	Hostel	Per bed per day	300
2.	Hotel/ Guest Houses	Per bed per day	600
3.	Restaurant	Per table per day	2000
4.	Commercial offices, Government offices, Bank, Insurance offices, coaching classes, education institutes etc.	Per capita per day	400
5.	Marriage halls, festival halls, exhibition and fairs	Per capita per day	600

ULBs can adopt any other method/ criteria for estimation of waste generated by bulk user.

Details of user charges along with penalty adopted in South Delhi Municipal Corporation is enclosed for guidance in Schedule I and II.

A discount of 80-90% may be considered for those entities which have set up/ or made arrangements for processing of waste on their own.

SCHEDULE –I
USER FEE FOR SOLID WASTE MANAGEMENT

1	2	3
S. No.	Categories	User Fee from each premises/ House/ Dwelling Unit/ Flat per month (in Rupees)
1.	Residential dwelling unit	
(i)	Up to 50 sq. m.	50
(ii)	Over 50 sq. m. up to 200 sq. m.	100
(iii)	Over 200 sq. m.	200
2.	Street Vendor	100
3.	Commercial establishments, shops, eating places (Dhaba/ sweet shops/ coffee house etc.)	500
4.	Guest House/ Dharmshalas	2,000
5.	Hostel	2,000
6.	Restaurants up to the sitting of 50 persons	2,000
7.	Restaurants with sitting of more than 50 persons	3,000
8.	Hotel (Unstarred)	2,000
9.	Hotel (Up to 3 star)	3,000
10.	Hotel (above 3 star)	5,000
11.	Commercial offices, government offices, bank, insurance offices, coaching classes, educational institutes etc.	2,000
12.	Clinic, dispensary, laboratories (upto 50 beds) only non-bio medical waste	2,000
13.	Clinic, dispensary, laboratories (upto 50 beds) only non-bio medical waste	4,000
14.	Small and cottage industry, workshops, (only non-hazardous waste)	3,000
15.	Godowns, cold storages (only non-hazardous waste)	5,000
16.	Marriage/ Party Halls, festivals halls, Party Lawns, exhibition and fairs	5,000
17.	Clubs, Cinema Halls, Pubs, Multiplexes and other such places	4,000
18.	Any other non-commercial, commercial, religious or charitable institutions not covered in any other category	2,000
19.	Other places/ activity not marked as above	As decided by the Commissioner/ Chief Officer of ULB by general or special order

* Hotels and Restaurants to be counted separately

Late Payment Surcharge (LPSC) shall be charged at the rate of 10% of the user fee/ charges if the user fee/ charges are not paid within 30 days of raising the demand.

SCHEDULE -II
FINE/ PENALTY

S. No.	Rule/ Bye-Laws No.	Offences	Applicable to	Fine for every default (in Rupees)
1.	Rule 4(1) of SWM Rules	Failure to segregate and store waste and handover segregated waste in accordance with the Rules	Residential	200
			Marriage / Party Halls, Festival Halls, Party Lawns, Exhibition and fairs with area less than 5000 sqm.	10,000
			Clubs, Cinema Halls, Pubs, Community Halls, Multiplexes and other such places with area less than 5000 sqm.	5,000
			Other non-residential entities with area less than 5000 sq.m.	500
2.	Rule 4(1) (b) and (d) of SWM Rules	<ul style="list-style-type: none"> • Failure to deal with sanitary waste in accordance with the Rule • Failure to deal with horticulture waste and garden waste in accordance with the Rule 	Residential	200
			Non- Residential	500
3.	Rule 4(1) (c) of SWM Rules	Failure to deal with construction and demolition waste in accordance with the Rule	Residential	1,000
			Non- Residential	5,000
4.	Rule 4(2) of SWM Rules	Open burning of solid waste	Violator	5,000
5.	Rule 4(4) of SWM Rules	Organizing an event or gathering of more than one hundred person at any unlicensed place without following the prescribed procedure	Person(s), who has/ve organized such event or gathering or, on whose behalf such event or gathering has been organized and the event manager(s), if any, who has/ve organized such event or gathering	10,000
6.	Rule 4(5) of SWM Rules	Street vendor failing to deal with waste in accordance with the Rule	Violator	200

7.	Bye-law 13(1) read with Rules 15(g) of SWM Rules	Littering	Offender	500
Fine shall be levied only one in a month for the following violations				
8.	Rule 4(6) of SWM Rules	Failure to deal with waste in accordance with the Rule	Resident Welfare Association	10,000
			Market Association	20,000
9.	Rule 4(7) of SWM Rules	Failure to deal with waste in accordance with the Rule	Gated Community	10,000
			Institution	20,000
10.	Rule 4(8) of SWM Rules	Failure to deal with waste in accordance with the Rule	Hotel	50,000
			Restaurant	20,000
11.	Rule 17(2) of SWM Rules	Selling or marketing of disposable products without a system of collecting back the packaging waste generated due to their production	Manufacturer and/ or Brand Owner	1,00,000
12.	Rule 17(3) of SWM Rules	Failure to take measure in accordance with the Rule	Manufacturer and/ or Brand Owner and/ or marketing companies	50,000
13.	Rule 18 of SWM Rules	Failure to replace fuel requirement by refuse derived fuel	Industrial unit	1,00,000

10. ANNEXURE-8: CASE STUDY- BRUHAT BENGALURU MAHANAGARA PALIKE (BBMP)



Case Study: Bulk Generators Notification in Bengaluru- Issues, Intervention and Results

Place: Bengaluru

Background, Problems and Issues

Bangalore generates nearly 4000 MT of waste every day out of which 35-40% are generated by bulk generators. Bangalore is a city which has been developed in last two decades with the spurring growth of IT industry resulting high population increase in a small span of time. With the increase in population, there were demands of infrastructural developments leading to increase in housing complexes, apartments, schools, hospitals, clubs, hotels, restaurants, etc. Thus, a larger chunk of waste generators in Bangalore falls under the category of bulk generators and left untreated/unprocessed, started causing problems for BBMP to handle the waste. This untreated waste started causing blackspots in the city, unhygienic environment, rotting of waste and inviting citizen protests across the city.

BBMP Intervention

BBMP issued a public notice regarding the delivery and disposal of Municipal Solid Waste from Bulk Generators within BBMP Area, with effect from October 1st, 2012.

As per the notification, Bulk Generator is "any hotel/restaurants, choultry, mall, shopping complex, marriage halls, convention hall, temple, residential apartments (10 units and above), institutions, public offices, railway stations, bus stands or any other residential, commercial or a public entity which generates 100 Kg and more wet waste per day and any other such entity that is specifically identified and notified by the Commissioner as bulk generator"

BBMP also issued notification (Dt. 15.09.2012) which illustrated collection schedule for Bulk Generators as:

Type of Waste	Collection Frequency
Wet waste	Daily Collection
Dry waste	Weekly pickup
Sanitary waste	Daily (separately)
Garden waste	Weekly
E-waste	Quarterly pick up or drop off
Domestic hazardous waste	Quarterly pick up or drop off

The notification focused on managing the waste at its own site (in-situ) and to make own arrangements for the bulk generators. The notification stressed on adopting technologies like biogas units, composting and vermi composting units.

BBMP has made it mandatory for the bulk generators to give their waste (dry, wet and C&D Waste) only to the empanelled vendors by BBMP and to develop a contract between the bulk generators and the empanelled agency.

Results:

1. Majority of the bulk generators especially the resident welfare associations (RWAs) and apartment complexes have started segregating the waste and disposing the waste through appropriate vendors
2. BBMP has been efficiently collecting meat/slaughter house waste from ward No. 6 and 11 which has the highest no. of slaughter houses. Waste is collected from each shop with a fee of Rs. 200/ week from each shop.
3. Festival wastes from Bakri-id, Ganesha and Dusherra festival are being disposed off scientifically for past few years.

BRUHAT BANGALORE MAHANAGARA PALIKE**PUBLIC NOTICE**

In exercise of powers conferred by Section 256, 257 and 260 of the Karnataka Municipal Corporations Act, 1976 (Karnataka Act 14 of 1977) and in continuation of the Public Notice dated 15/09/2012, the following Public Notice is hereby issued regarding delivery and disposal of Municipal Solid Waste from **Bulk generators** within the BBMP area, with effect from October 1st 2012.

- (1) Unless the context otherwise requires, the following shall be understood as definitions under this Notice.

Definitions:

- a) **Bulk generators** means any hotel/restaurant, choultry, mall, shopping complex, marriage hall, convention hall, temple, residential apartments (10 units and above), institutions, public offices, railway stations, bus stands or any other residential, commercial or a public entity which generates 100 kg and more wet waste per day and any other such entity that is specifically identified and notified by the Commissioner as bulk generator;
- b) **Shopkeeper** is broadly defined as a person who offers goods or services for sale to the public having a permanent / semi-permanent built up structure;
- c) **Street vendor/hawker** is broadly defined as a person who offers goods or services for sale to the public without having a permanent built up structure but without a temporary static structure or mobile stall or headload;
- d) **Composting** means a controlled process involving microbial decomposition of organic matter; for conversion of bio-degradable waste into compost.

- (2) Bulk Generators shall not mix Wet Waste with any other types of waste. Wet waste and garden waste generated shall be composted at source or processed using bio-methanisation technique. Where it is not possible to compost wet waste at site, due to space constraint, alternate arrangements shall be made by the generator to hand over wet waste to private composters or BBMP wet waste collectors, on payment, as specified by concerned Zonal Commissioners.
- (3) Bulk Generators shall retain Dry Waste within their premises to be handed over directly to the nearest authorized Dry Waste Collection Centers.
- (4) Bulk Generators shall cause the Sanitary Wastes to be separately collected by in-house staff and deposited at the nearest Bio-Medical Waste Collection Centre to be specified by the BBMP or arranged by mutual consent.
- (5) BBMP will collect rejects / inerts from the bulk generators once a week on payment basis.
- (6) All shopkeepers/vendors/hawkers shall keep their wet 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 their responsibility to deliver this waste duly segregated to the authorized waste collectors of BBMP. Failure to do so will attract fines.
- (7) No wastes of any kind shall be deposited at any time by Bulk generators and street shopkeepers/vendors/hawkers on the streets, public spaces or vacant sites and violations will attract fines.

DATE: 20-9-2012

Sd/-
(Rajneesh Goel)
Commissioner
Bruhath Bangalore Mahanagara Palike

11. ANNEXURE-9: LIST OF COMPOST MACHINE MANUFACTURERS

101

S. No.	Machine	Model	Company Name	Location	Contact Details	Applicability (Ward /city/cluster/field/ household level)	Space Needed	Quantity of Compost produced/ day	Energy Requirement	Price	Warranty	Servicing Details	Sale made to Govt. Agency (Y/N)
1	ECOPOTS		We Farm Techs- DIPP292	CHENNAI	9444295678 vijayanand@gmail.com	Household- organic waste is fertiliser for plants	40 sq. ft of space for 20 pots for 40 plants	Each 7 liters/ day,140 liters in 20pots	NIL, Veg & Non veg wastes	250Rs/ pot	No moving parts	Nil needed	Yes
2	Microbial Composting technology		NARMADA BIOTECH LTD.	BARWAHA (M.P.)	899521999 pranayhira@rediffmail.com	Can be used at any Level	75 Sq. Ft./M. Ton Waste	50-70% of treated waste Material	No Power Required	Rs.3000/- per 20 M.tons	N.A.	N.A.	Yes
3	OWC (Organic Waste Converter)	OWC 30 (100kgs/day)	Excel Industries Limited	Mumbai	022-66464342 owc@excelind.com	Apartments Complexes, Corporates Offices, Hotels, Resorts, Schools, Temples, Industry & Hospital Canteens, Marriage Halls etc	150 sqft	30%	2 units / day	Rs. 3,52,000	1 year	Within 48 hours anywhere in India	Yes
4	OWC (Organic Waste Converter)	OWC 60 (200kgs/day)	Excel Industries Limited	Mumbai	022-66464342 owc@excelind.com	Apartments Complexes, Corporates Offices, Hotels, Resorts, Schools, Temples, Industry & Hospital Canteens, Marriage Halls etc	200 sqft	30%	4 units / day	Rs. 4,70,000	1 year	Within 48 hours anywhere in India	Yes
5	OWC (Organic Waste Converter)	OWC 130 (600kgs/day)	Excel Industries Limited	Mumbai	022-66464342 owc@excelind.com	Apartments Complexes, Corporates Offices, Hotels, Resorts, Schools, Temples, Industry & Hospital Canteens, Marriage Halls etc	600 sqft	30%	12 units / day	Rs. 9,40,000	1 year	Within 48 hours anywhere in India	Yes
6	OWC (Organic Waste Converter)	OWC 130 (1000kgs/day)	Excel Industries Limited	Mumbai	022-66464342 owc@excelind.com	Apartments Complexes, Corporates Offices, Hotels, Resorts, Schools, Temples, Industry & Hospital Canteens, Marriage Halls etc	1000 sqft	30%	20 units / day	Rs. 14,05,000	1 year	Within 48 hours anywhere in India	Yes

S. No.	Machine	Model	Company Name	Location	Contact Details	Applicability (Ward /city/cluster/field/ household level)	Space Needed	Quantity of Compost produced/ day	Energy Requirement	Price	Warranty	Servicing Details	Sale made to Govt. Agency (Y/N)
7	OWC (Organic Waste Converter)	OWC 300 (upto 2000kgs/day)	Excel Industries Limited	Mumbai	022-66464342 owc@excelind.com	ULBs, APMC Markets, Municipal Councils, City Councils, Food Processing Industries etc.	2000 sqft	30%	40 units/day	Rs. 27,65,000	1 year	Within 48 hours anywhere in India	Yes
8	OWC (Organic Waste Converter)	OWC 500 (upto 3000kgs/day)	Excel Industries Limited	Mumbai	022-66464342 owc@excelind.com	ULBs, APMC Markets, Municipal Councils, City Councils etc.	3000 sqft	30%	60 units / day	Rs. 39,35,000	1 year	Within 48 hours anywhere in India	Yes
9	Bioneer	Bioneer 50 (50 kgs/day)	Excel Industries Limited	Mumbai	022-66464342 owc@excelind.com	Corporate Offices, Hotels, Resorts, Industrial Canteens, Food Processing Industries, Residential Colonies etc.	75 sqft	10%	5.8 HP	Rs. 5,70,000	1 year	Within 48 hours anywhere in India	Yes
10	Bioneer	Bioneer 100 (100 kgs/day)	Excel Industries Limited	Mumbai	022-66464342 owc@excelind.com	Corporate Offices, Hotels, Resorts, Industrial Canteens, Food Processing Industries, Residential Colonies etc.	100 sqft	10%	9.5 HP	Rs. 7,80,000	1 year	Within 48 hours anywhere in India	Yes
11	Bioneer	Bioneer 200 (200 kgs/day)	Excel Industries Limited	Mumbai	022-66464342 owc@excelind.com	Corporate Offices, Hotels, Resorts, Industrial Canteens, Food Processing Industries, Residential Colonies etc.	200 sqft	10%	15.45 HP	Rs. 9,70,000	1 year	Within 48 hours anywhere in India	Yes
12	Bioneer	Bioneer 300 (300 kgs/day)	Excel Industries Limited	Mumbai	022-66464342 owc@excelind.com	Corporate Offices, Hotels, Resorts, Industrial Canteens, Food Processing Industries, Residential Colonies etc.	300 sqft	10%	19.3 HP	Rs. 11,60,000	1 year	Within 48 hours anywhere in India	Yes
13	Bioneer	Bioneer 400 (400 kgs/day)	Excel Industries Limited	Mumbai	022-66464342 owc@excelind.com	Corporate Offices, Hotels, Resorts, Industrial Canteens, Food Processing Industries, Residential Colonies etc.	400 sqft	10%	29 HP	Rs. 14,50,000	1 year	Within 48 hours anywhere in India	Yes

S. No.	Machine	Model	Company Name	Location	Contact Details	Applicability (Ward /city/cluster/field/ household level)	Space Needed	Quantity of Compost produced/ day	Energy Requirement	Price	Warranty	Servicing Details	Sale made to Govt. Agency (Y/N)
14	EcoComposter		Eco Support Pvt. Ltd.	Thane (Mumbai)	9920461282 / 9892831668 ecosupindia@gmail.com	Cluster Level/Field Level/ Household level	15 sq. m to 100 sq.m	40 kg to 1 tonnes (Depends on capacity)	2 Units-15 units/day (Depends on capacity)	Rs. 4 lakhs-30 lakhs	1 year	2 services/ year	Yes
15	Eco Bin					Household level	1 sq. m to 2 sq.m	300 gms. To 2.5 kg (Depends on capacity)	Manual	Rs. 30,000-75,000	1 year	2 services/ year	No
16	Waste to Compost	WTC-25	Bhor Engineering Pvt Ltd	Pune	Mr. Sachin Bhor 9011200000/ 9011010594	Household Level and for Society , Industrial Canteen	25 sq.ft.- L 1430 x H 850 x W 700 mm	10-15 % of Total waste	3 Phase Connection- 1.5 KW				No
17	Waste to Compost	WTC-50	Bhor Engineering Pvt Ltd	Pune	Mr. Sachin Bhor 9011200000/ 9011010594	Society , Industrial Canteen, Education Institutes	30 Sq.ft (L 1500 x H 900 x W 600)	10-15 % of Total waste	3 Phase Connection- 2.2 KW				
18	Waste to Compost	WTC-100	Bhor Engineering Pvt Ltd	Pune	Mr. Sachin Bhor 9011200000/ 9011010594	Society , Industrial Canteen, Education Institutes, city level/ cluster level/field level	40 Sq. ft (L 2100 x H 1200 x W 850)	10-15 % of Total waste	3 Phase Connection- 6.5 KW		1 Year free Warranty from the date of Installation	Service Support Available Within 48 Hours in any part of INDIA	
19	Waste to Compost	WTC-150	Bhor Engineering Pvt Ltd	Pune	Mr. Sachin Bhor 9011200000/ 9011010594	Society , Industrial Canteen, Education Institutes	48 Sq.ft (L 2300 x H 1320 x W 1100)	10-15 % of Total waste	3 Phase Connection- 8.5 KW		1 Year free Warranty from the date of Installation	Service Support Available Within 48 Hours in any part of INDIA	

S. No.	Machine	Model	Company Name	Location	Contact Details	Applicability (Ward /city/cluster/field/ household level)	Space Needed	Quantity of Compost produced/ day	Energy Requirement	Price	Warranty	Servicing Details	Sale made to Govt. Agency (Y/N)
20	Waste to Compost	WTC-250	Bhor Engineering Pvt Ltd	Pune	Mr. Sachin Bhor 9011200000/ 9011010594	Society, Industrial Canteen, city level/ cluster level/field level	56 Sq. ft (L 2500 x H 1500 x W 1200)	10-15 % of Total waste	3 Phase Connection- 13.5 KW		1 Year free Warranty from the date of Installation	Service Support Available Within 48 Hours in any part of INDIA	
21	Waste to Compost	WTC-500	Bhor Engineering Pvt Ltd	Pune	Mr. Sachin Bhor 9011200000/ 9011010594	Ward level/ city level/ cluster level/field level	90 Sq. ft (L 3300 x H 1800 x W 1300)	10-15 % of Total waste	3 Phase Connection- 16 KW		1 Year free Warranty from the date of Installation	Service Support Available Within 48 Hours in any part of INDIA	
22	Waste to Compost	WTC-1000	Bhor Engineering Pvt Ltd	Pune	Mr. Sachin Bhor 9011200000/ 9011010594	Ward level/ city level/ cluster level/field level	30 Sq.ft (L 4200 xH 3000 x W 1800	10-15 % of Total waste	3 Phase Connection- 30 KW		1 Year free Warranty from the date of Installation	Service Support Available Within 48 Hours in any part of INDIA	
23	Waste to Compost	WTC-1500- WTC-5000	Bhor Engineering Pvt Ltd	Pune	Mr. Sachin Bhor 9011200000/ 9011010594	Ward level/ city level/ cluster level/field level	System We provide- Crusher, Screw Press, Conveyor)				1 Year free Warranty from the date of Installation	Service Support Available Within 48 Hours in any part of INDIA	
24	Foodie Capacity	FOODIE Capacity F-25	Ecoman Enviro Solutions Pvt Ltd	Pune	7720999222 parimal@ecoman.in; vaibhav@ecoman.in	We have various kind of Waste to Compost Machine From Capacity F-25 to F-5000, So Applicability (Ward level/ city level/cluster level/ field level/household level)	5.5 x 3 x 3 ft.	Approx 2.5 Kg / Day	1.5 KW /2 HP	Rs 4,05,000 /-	12 Months From the Date of Installation	Service Support Available Within 48 Hours in any part of INDIA	Yes

S. No.	Machine	Model	Company Name	Location	Contact Details	Applicability (Ward /city/cluster/field/ household level)	Space Needed	Quantity of Compost produced/ day	Energy Requirement	Price	Warranty	Servicing Details	Sale made to Govt. Agency (Y/N)
25		FOODIE Capacity F-75					7 x 4 x 4 ft.	Approx 7.5 Kg / Day	3.5 KW/ 5 HP	Rs 6,65,000 /-			Yes
26		FOODIE Capacity F-125					7.5 x 4.5 x 4.5 ft.	Approx 12.5 Kg / Day	5.5 KW/7.5 HP	Rs 9,55,000 /-			Yes
27		FOODIE Capacity F-250					9 x 5.5 x 5.5 ft.	Approx 25 Kg / Day	10.5 KW/ 14 HP	Rs 12,25,000 /-			Yes
28		FOODIE Capacity F-500					12 x 6.5 x 7.5 ft.	Approx 50 Kg / Day	15 KW/ 21 HP	Rs 17,99,000 /-			Yes
29		FOODIE Capacity F-700					13.5 x 7.5 x 8.5 ft.	Approx 70 Kg / Day	25 KW/ 34 HP	Rs 24,78,000 /-			Yes
30		FOODIE Capacity F-1250					16 x 8 x 9.5 ft.	Approx 125 Kg / Day	40 KW/ 54 HP	Rs 35,99,000 /-			Yes
31		FOODIE Capacity F-1000					800 to 1000 Sq Ft	Approx 200 Kg / Day	23 KW / 31 HP	Rs 29,00,000 /-			Yes
32		FOODIE Capacity F-1500					1000 to 1200 Sq Ft	Approx 300 Kg / Day	35 KW / 46 HP	Rs 38,00,000 /-			Yes
33		FOODIE Capacity F-2500					1500 Sq Ft	Approx 500 Kg / Day	46 KW / 60 HP	Rs 55,00,000 /-			Yes
34		FOODIE Capacity F-3000					2000 Sq Ft	Approx 600 Kg / Day	48 KW / 64 HP	Rs 66,00,000 /-			Yes
35		FOODIE Capacity F-5000					3000 Sq Ft	Approx 1000 Kg / Day	73 KW / 97 HP	Rs 94,00,000 /-			Yes
36	Smart Composter Planter	Smart Composter Planter (Mini Earth)	EnSURE Consortium	Ghaziabad	9891178641 / 42/43/44/46 ensure consortium@gmail.com	House Hold level	2X2 feet	100-200 Gms	Zero	Rs. 6,000	6 Month	All over India	No

S. No.	Machine	Model	Company Name	Location	Contact Details	Applicability (Ward /city/cluster/field/ household level)	Space Needed	Quantity of Compost produced/ day	Energy Requirement	Price	Warranty	Servicing Details	Sale made to Govt. Agency (Y/N)
37		Smart Composter Planter (Micro Earth)				House Hold level	1.5X1.5 feet	50-100 Gms	Zero	Rs. 4,200	6 Month	All over India	No
38		Easy & Fast Composting				Ward /Cluster /City level	10 Sqm to 1000 Sqm	10-20% of waste input	Yes (Only for shredding)	3 Lac onwards	6 Month	All over India	No
39		Easy Composter				Ward /Cluster /City level	160 Sq. Feet for 1TPD	10-20% of waste input	Yes	Rs.3Lac -20 Lac	One Year	All over India	No
40		BioCylinder (Kitchen waste to cooking gas plant)				House Hold level to City level	4X4 Feet to 4X4 Acrs	10-20% of waste input	Yes	Rs.25000/- to Crores	One Year	All over India	No
41		Biomass to Fuel Pellets				Cluster to City level	100Sqm to 1000 Acrs	No	Yes	Rs.3Lac -20 Lac	One Year	All over India	No
42		Smart Wormy Composting				Cluster to City level	100Sqm to 1000 Acrs	10-20% of waste input	yes	Rs.3Lac -20 Lac	One Year	All over India	No
43		Compost Fast Composting Culture				House Hold level to City level			No	Rs.2000/Kg	No	All over India	No
44		Earth Worms				House Hold level to City level			NO	Rs.700/Kg	No	All over India	No
45	Waste go	Waste go	Waste Management Corporation	New Delhi, India	9811169618 akarora@gmail.com; akarora@wastemanagementcorp.com	House hold to City level	100m2 to 5000m2	Depends upon the type of waste input (15-20% of the input)	2HP to 150HP	Rs.5Lac to 5Cr.	Negotiable	All over India	No
46	Green Waste Reprocessor		Clean India Ventures	New Delhi	9871692007, 9910332007 abhishak@graphisads.com	City Level	15ft X18 ft	800-1000kg	20 KW	Rs. 25,000	1 year	Yes, By CIVL	No
47						Ward Level	20ft X 20ft	100-150 kg	15KW	Rs. 30,000	2 year	Yes, By CIVL	No
48						Cluster Level	25 ft By 20 ft	1000kg of Fuel Sticks	25KW	Rs. 60,000	3 year	Yes, By CIVL	No
49						Ward Level	15 ft X 10 ft	80 kg	10KW	Rs. 15,000	4 year	Yes, By CIVL	No
50						City Level	20 ft X 20 ft	1000kg of Fuel Sticks	25KW	Rs. 60,000	5 year	Yes, By CIVL	No
51						Ward Level	20 ft X 20 ft	800 kg of Fuel Sticks	18KW	Rs. 20,000	6 year	Yes, By CIVL	No

S. No.	Machine	Model	Company Name	Location	Contact Details	Applicability (Ward /city/cluster/field/ household level)	Space Needed	Quantity of Compost produced/ day	Energy Requirement	Price	Warranty	Servicing Details	Sale made to Govt. Agency (Y/N)
52	Aerobic Digester	Aerobic Digester (50Kgs / Day Layered)	Shudh-Labh Solutions Pvt Ltd	Bangalore	080-49516889 09880710830 ramanan@sudh-labh.in	Cluster Level upto 70Households	150Sqft / digester	15KGs	Aerobic Digester - no power needed	Rs. 63,000			No
53		Aerobic Digester (35Kgs / Day Layered)	Shudh-Labh Solutions Pvt Ltd	Bangalore	ramanan@sudh-labh.in	Cluster Level upto 50Households	150Sqft / digester	10KGs	Aerobic Digester - no power needed	Rs. 57,000			No
54		Blue Drum Aerobic Digester	Shudh-Labh Solutions Pvt Ltd	Bangalore		Cluster Level upto 10Households	100Sqft / digester	1-2Kgs	Aerobic Digester - no power needed	Rs. 8,000			No
55		Custom Aerobic Digester	Shudh-Labh Solutions Pvt Ltd	Bangalore		Cluster Level	Custom Designed - can utilise available space and process higher quantities - 1 Tonne or 2 Tonnes		Aerobic Digester - no power needed				No
56	Smart Xpress 50	50 kg/day	Smart Enviro Systems	Pune	Mr. Rakeshprashar, Email ID: prashar_rakesh@yahoo.in Mobile Number: 09871443052	Field Level	17 m sqr	7.5	300	4,75,000.00	1 Year	Quarterly Visit	Yes
57	Smart Xpress 100	100 kg/day				Field Level	21 m sqr	15	600	5,80,000.00	1 Year	Quarterly Visit	Yes
58	Smart Xpress 200	200 kg/day				Field Level	28 M sqr	30	900	8,75,000.00	1 Year	Quarterly Visit	Yes
59	Smart Xpress 300	300 kg/day				Field Level	28 M sqr	45	1200	12,50,000.00	1 Year	Quarterly Visit	Yes
60	Smart Xpress 500	500 kg/day				Field Level	32 M sqr	150	2400	16,00,000.00	1 Year	Quarterly Visit	Yes
61	Smart Drum Composter 250	250 kg/day				Field Level	40 M sqr	37.5	179	8,50,000.00	1 Year	Quarterly Visit	Yes

S. No.	Machine	Model	Company Name	Location	Contact Details	Applicability (Ward /city/cluster/field/ household level)	Space Needed	Quantity of Compost produced/ day	Energy Requirement	Price	Warranty	Servicing Details	Sale made to Govt. Agency (Y/N)
62	Smart Drum Composter 375	375 kg/day				Field Level	40 M sqr	56.25	224	10,25,000.00	1 Year	Quarterly Visit	Yes
63	Smart Drum Composter 500	500 kg/day				Field Level	47 M sqr	75	269	11,50,000.00	1 Year	Quarterly Visit	Yes
64	Smart Drum Composter 600	600 kg/day				Field Level	47 M sqr	90	269	14,00,000.00	1 Year	Quarterly Visit	Yes
65	Smart Drum Composter 750	750 kg/day				Cluster Level	66 M sqr	112.5	448	17,50,000.00	1 Year	Quarterly Visit	Yes
66	Smart Drum Composter 1000	1000 kg/day				Cluster Level	80 M sqr	150	560	26,00,000.00	1 Year	Quarterly Visit	Yes
67	Smart Drum Composter 2000	2000 kg/day				Cluster Level	168 M sqr	630	783	42,00,000.00	1 Year	Quarterly Visit	Yes
68	R Nature		Reddonatura India Private Limited	Bangalore	Aayush Gupta aayush@reddonatura.com; info@reddonatura.com 080 25200189/080 25276008					25 lac/MT	1 Year		
69	Greeneria Fully Automatic Compost Machine	G-50/G-100/G-125/G-250/G-500/G-750/G-1000/G-1250/G-1500	Aruna Green ventures Pvt ltd	Bangalore	Kumar Subbarao 8861075555/ 88619211617 sales@arunagreen.com	House Hold level to City level				28 LAC	1 Year		
70	Biogas Plant	G-02 to G-5 Million KG											
71	Alfa-Therm Composter-Semi Auto	Compost-Eco-50	Alfa Therm Limited	Delhi/All India	Vijay Saroj -9958692424 vijay@alfatherm.in	We have various capacity of Waste to Compost machine/plant From 5 kgs per day to 2000 TPD	100 SQF	Upto 60%	2.5 HP	As per Capacity	12 Months From the Date of Installation	Service Support Available Within 48 Hours in any part of INDIA	Yes

S. No.	Machine	Model	Company Name	Location	Contact Details	Applicability (Ward /city/cluster/field/ household level)	Space Needed	Quantity of Compost produced/ day	Energy Requirement	Price	Warranty	Servicing Details	Sale made to Govt. Agency (Y/N)
72	Alfa-Therm Composter-Semi Auto	Compost-Eco-100	Alfa Therm Limited	Delhi/All India	Vijay Saroj -9958692424 vjay@alfatherm.in	We have various capacity of Waste to Compost machine/plant From 5 kgs per day to 2000 TPD	200 SQF	Upto 60%	3.5 HP	As per Capacity	12 Months From the Date of Installation	Service Support Available Within 48 Hours in any part of INDIA	Yes
73	Alfa-Therm Composter-Semi Auto	Compost-Eco-400	Alfa Therm Limited	Delhi/All India	Vijay Saroj -9958692424 vjay@alfatherm.in	We have various capacity of Waste to Compost machine/plant From 5 kgs per day to 2000 TPD	300 SQM	Upto 60%	6 HP	As per Capacity	12 Months From the Date of Installation	Service Support Available Within 48 Hours in any part of INDIA	Yes
74	Alfa-Therm Composter-Semi Auto	Compost-Eco-800	Alfa Therm Limited	Delhi/All India	Vijay Saroj -9958692424 vjay@alfatherm.in	We have various capacity of Waste to Compost machine/plant From 5 kgs per day to 2000 TPD	500 SQM	Upto 60%	8 HP	As per Capacity	12 Months From the Date of Installation	Service Support Available Within 48 Hours in any part of INDIA	Yes
75	Alfa-Therm Composter-Semi Auto	Compost-Eco-800	Alfa Therm Limited	Delhi/All India	Vijay Saroj -9958692424 vjay@alfatherm.in	We have various capacity of Waste to Compost machine/plant From 5 kgs per day to 2000 TPD	600 SQM	Upto 60%	16 HP	As per Capacity	12 Months From the Date of Installation	Service Support Available Within 48 Hours in any part of INDIA	Yes
76	Alfa-Therm Composter-Semi Auto	Compost-Eco-2000	Alfa Therm Limited	Delhi/All India	Vijay Saroj -9958692424 vjay@alfatherm.in	We have various capacity of Waste to Compost machine/plant From 5 kgs per day to 2000 TPD	800 SQM	Upto 60%	28 HP	As per Capacity	12 Months From the Date of Installation	Service Support Available Within 48 Hours in any part of INDIA	Yes
77	Alfa-Therm Composter-Semi Auto	Compost-Eco-3000	Alfa Therm Limited	Delhi/All India	Vijay Saroj -9958692424 vjay@alfatherm.in	We have various capacity of Waste to Compost machine/plant From 5 kgs per day to 2000 TPD	2500 SQM	Upto 60%	Customized	As per Capacity	12 Months From the Date of Installation	Service Support Available Within 48 Hours in any part of INDIA	Yes

S. No.	Machine	Model	Company Name	Location	Contact Details	Applicability (Ward /city/cluster/field/ household level)	Space Needed	Quantity of Compost produced/ day	Energy Requirement	Price	Warranty	Servicing Details	Sale made to Govt. Agency (Y/N)
79	Alfa-Therm Composter-Semi Auto	Compost-Eco-5000	Alfa Therm Limited	Delhi/All India	Vijay Saroj -9958692424 vijay@alfatherm.in	We have various capacity of Waste to Compost machine/plant From 5 kgs per day to 2000 TPD	2800 SQM	Upto 60%	Customized	As per Capacity	12 Months From the Date of Installation	Service Support Available Within 48 Hours in any part of INDIA	Yes
80	Alfa-Therm Composter-Fully Auto	Compost 24-10	Alfa Therm Limited	Delhi/All India	Vijay Saroj -9958692424 vijay@alfatherm.in	We have various capacity of Waste to Compost machine/plant From 5 kgs per day to 2000 TPD	25 SQF	Upto 20%	2.5 HP	Rs.285000/-	12 Months From the Date of Installation	Service Support Available Within 48 Hours in any part of INDIA	Yes
81	Alfa-Therm Composter-Fully Auto	Compost 24-25	Alfa Therm Limited	Delhi/All India	Vijay Saroj -9958692424 vijay@alfatherm.in	We have various capacity of Waste to Compost machine/plant From 5 kgs per day to 2000 TPD	50 SQF	Upto 20%	5 HP	Rs.375000/-	12 Months From the Date of Installation	Service Support Available Within 48 Hours in any part of INDIA	Yes
82	Alfa-Therm Composter-Fully Auto	Compost 24-50	Alfa Therm Limited	Delhi/All India	Vijay Saroj -9958692424 vijay@alfatherm.in	We have various capacity of Waste to Compost machine/plant From 5 kgs per day to 2000 TPD	100 SQF	Upto 20%	8 HP	Rs.575000/-	12 Months From the Date of Installation	Service Support Available Within 48 Hours in any part of INDIA	Yes
83	Alfa-Therm Composter-Fully Auto	Compost 24-100	Alfa Therm Limited	Delhi/All India	Vijay Saroj -9958692424 vijay@alfatherm.in	We have various capacity of Waste to Compost machine/plant From 5 kgs per day to 2000 TPD	150 SQF	Upto 20%	13 HP	Rs.735000/-	12 Months From the Date of Installation	Service Support Available Within 48 Hours in any part of INDIA	Yes
84	Alfa-Therm Composter-Fully Auto	Compost 24-200	Alfa Therm Limited	Delhi/All India	Vijay Saroj -9958692424 vijay@alfatherm.in	We have various capacity of Waste to Compost machine/plant From 5 kgs per day to 2000 TPD	250 SQF	Upto 20%	20 HP	Rs.950000/-	12 Months From the Date of Installation	Service Support Available Within 48 Hours in any part of INDIA	Yes

S. No.	Machine	Model	Company Name	Location	Contact Details	Applicability (Ward /city/cluster/field/ household level)	Space Needed	Quantity of Compost produced/ day	Energy Requirement	Price	Warranty	Servicing Details	Sale made to Govt. Agency (Y/N)
85	Alfa-Therm Composter-Fully Auto	Compost 24-300	Alfa Therm Limited	Delhi/All India	Vijay Saroj -9958692424 vijay@alfatherm.in	We have various capacity of Waste to Compost machine/plant From 5 kgs per day to 2000 TPD	400 SQF	Upto 20%	22 HP	Rs.1150000/-	12 Months From the Date of Installation	Service Support Available Within 48 Hours in any part of INDIA	Yes
86	Alfa-Therm Composter-Fully Auto	Compost 24-500	Alfa Therm Limited	Delhi/All India	Vijay Saroj -9958692424 vijay@alfatherm.in	We have various capacity of Waste to Compost machine/plant From 5 kgs per day to 2000 TPD	500 SQF	Upto 20%	27 HP	Rs.1950000/-	12 Months From the Date of Installation	Service Support Available Within 48 Hours in any part of INDIA	Yes
87	Alfa-Therm Composter-Semi Auto	Compost-Eco-800	Alfa Therm Limited	Delhi/All India	Vijay Saroj -9958692424 vijay@alfatherm.in	We have various capacity of Waste to Compost machine/plant From 5 kgs per day to 2000 TPD	600 SQM	Upto 60%	16 HP	As per Capacity	12 Months From the Date of Installation	Service Support Available Within 48 Hours in any part of INDIA	Yes
88	Alfa-Therm Composter-Fully Auto	Compost 24-1000	Alfa Therm Limited	Delhi/All India	Vijay Saroj -9958692424 vijay@alfatherm.in	We have various capacity of Waste to Compost machine/plant From 5 kgs per day to 2000 TPD	1000 SQF	Upto 20%	53 HP	Rs.3750000/-	12 Months From the Date of Installation	Service Support Available Within 48 Hours in any part of INDIA	Yes
89	Alfa-Therm Composter-Fully Auto	Compost 24-2000	Alfa Therm Limited	Delhi/All India	Vijay Saroj -9958692424 vijay@alfatherm.in	We have various capacity of Waste to Compost machine/plant From 5 kgs per day to 2000 TPD	2000 SQF	Upto 20%	Customized	Customized	12 Months From the Date of Installation	Service Support Available Within 48 Hours in any part of INDIA	Yes
90	Alfa-Therm Composter-Fully Auto	Compost 24-5000	Alfa Therm Limited	Delhi/All India	Vijay Saroj -9958692424 vijay@alfatherm.in	We have various capacity of Waste to Compost machine/plant From 5 kgs per day to 2000 TPD	5000 SQF	Upto 20%	Customized	Customized	12 Months From the Date of Installation	Service Support Available Within 48 Hours in any part of INDIA	Yes

S. No.	Machine	Model	Company Name	Location	Contact Details	Applicability (Ward /city/cluster/field/ household level)	Space Needed	Quantity of Compost produced/ day	Energy Requirement	Price	Warranty	Servicing Details	Sale made to Govt. Agency (Y/N)
91	Organic Waste Composting machine	We have various model and capacity	Smart India Solutions	Delhi/ NCR, Uttar Pradesh, Bihar, West Bengal, Mumbai, Orissa	Md. Naushad Hussain- 9999925361 Email id: info@smartindiasolutions.com, smartindia2030@gmail.com	City/cluster/field/ household level	As per capacity	Upto 70%	As per Capacity	As per Capacity	12 Months From the Date of Installation	Service Support Available Within 48 Hours in any part of INDIA	Yes
92	Organic Compost	1 Kg, 2 Kg, 5 Kg, 10 Kg Packet	Smart India Solutions	Delhi/ NCR, Uttar Pradesh, Bihar, West Bengal, Mumbai, Orissa	Md. Naushad Hussain- 9999925361 Email id: info@smartindiasolutions.com, smartindia2030@gmail.com	City/cluster/field/ household level	NA	NA	NA	As per Capacity	NA	NA	Yes
93	Kwik Composting Accelerator		Earth Care Equipment's	Pune	Dilip Beladar 9890660392 / 7028020135 dilipb@ecapl.com								
94	OWD (Organic Waste Digester)	VG 50-Kg To 3000-Kg	Vermigold Ecotech Pvt Ltd	Mumbai	Mr. Amol Ghorghhe +919619564810 amol.o@vermigold.com Mr. M.V. Manohar +918884444121 manohar.v@vermigold.com Mr Jaideep Saptarshi jd@vermigold.com www.vermigold.com	Organic-Waste to Vermi-Compost & Vermi-Wash 50-nos- Household to Field / Ward level		10% - Vermi-Compost & 15% - Vermi-Wash ON Actual Organic-Wet & Dry Waste Loaded	3-4 Units/Day Depending on Capacity		-12 Months from the date of Installation	All India within 48 hours	Yes
95	Compact Biogas	250 kg -10000 Kg											



**Ministry of Housing
and Urban Affairs**
Government of India



एक कदम स्वच्छता की ओर

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 606/2018

Compliance of Municipal Solid Waste Management Rules, 2016

Date of hearing: 16.01.2019

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE S.P. WANGDI, JUDICIAL MEMBER
HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

For Applicant(s):

For Respondent (s): Mr. Rajkumar, Advocate for CPCB

ORDER

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I. PREFACE

- The issue for consideration is the compliance of the Solid Waste Management Rules, 2016 (hereinafter referred to as SWM Rules) in continuation of orders earlier passed on the subject.
- Twenty-three years back, the problem of MSW was mentioned by Hon'ble Supreme Court as follows:

"Historic city of Delhi- the capital of India- is one of the most polluted cities in the world. The authorities, responsible for pollution control and environment protection, have not been able to provide clean and healthy environment to the residents of Delhi. The ambient air is so much polluted that it is difficult to breath. More and more

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*Delhites are suffering from respiratory diseases and throat infections. River Yamuna- the main source of drinking water supply is the free dumping place for untreated sewage and industrial waste. Apart from air and water pollution, the city is virtually an open dustbin. Garbage strewn all over Delhi is a common sight. The Municipal Corporation of Delhi (the MCD) constituted under the Delhi Municipal Corporation Act, 1957 (Delhi Act) and the New Delhi Municipal Council (the NDMC) constituted under the new Delhi Municipal Council Act, 1994 (New Delhi Act) are wholly remiss in the discharge of their duties under law. It is no doubt correct that rapid industrial development, urbanization and regular flow of persons from rural to urban areas have made major contribution towards environmental degradation but at the same time the authorities-entrusted with the work of pollution control cannot be permitted to sit back with folded hands on the pretext that they have no financial or other means to control pollution and protect the environment.” **

After twenty-three years, situation has become worse. ‘Swachh Bharat Abhiyan’, a noble initiative notwithstanding.

II PROCEEDINGS BEFORE THIS TRIBUNAL

3. The matter was taken up by this Tribunal vide order dated 22.12.2016 in *Almitra Patel & Anr. v. Union of India & Ors., O.A.No. 199/2014*. Proceedings before this Tribunal arose out of a Petition under the Article 32 of the Constitution filed before the Hon’ble Supreme Court of India seeking directions for steps to improve the system of collection, storage, transportation, disposal treatment and re-cycling of municipal solid waste. The said Petition was transferred to this Tribunal from Hon’ble Supreme Court of India. After consideration of the problem of waste disposal in the country and reports of various Committees, it was observed that though rules on the subject have been revised and notified on 08.04.2016, enforcement remained a challenge. The Tribunal noted that the timeline of steps to be taken within one year under

Rule 22 had already expired without the stipulated action being taken. The landfills had gone beyond the permissible heights and were a health hazard. Waste was to be processed in the manner laid down under the rules by preparing appropriate action plans. Accordingly, directions were issued to all the States and UTs to enforce and implement the rules and to prepare action plans relating to management and disposal of waste and to take other steps as mandated under the Rules.

4. In spite of the above, the Annual Report prepared by the CPCB in April, 2018, showed serious deficiencies in compliance of the rules in most of the States. Apart from the Report of the CPCB, non-compliance of the Rules could be seen from frequent grievances being brought before the Tribunal with the photographic evidence of heaps of garbage lying on the streets seeking coercive measures against the statutory authorities for their failures. As per certain studies, the magnitude of problem is India generates over 150,000 tonnes of municipal solid waste (MSW) per day, with Mumbai being the world's fifth most wasteful city. Yet, only 83% of waste is collected and less than 30% is treated. According to the World Bank, India's daily waste generations will reach 377,000 tonnes by 2025.¹ Unless problem is tackled, its impact on health and lives of citizens can be devastating. It is high time that stern measures are taken not only by those in-charge of administering law themselves but also by educating and involving the public at large.

5. The Tribunal thought it appropriate to have interaction with the stakeholders to evolve a mechanism for execution of order already passed in *Almitra Patel & Anr. v. Union of India & Ors.*, O.A. No. 199/2014 to consider the following issues:

¹ <https://www.livemint.com/Opinion/V2CgeIUq89k1k2fDwJXML/Swachh-Bharats-waste-management-problem.html>

- i. Whether State-wise Action Plan with timelines and budgetary support/provision for management of MSW has been prepared?
 - ii. Whether each city/town/urban local body is covered under the said Plan and individual Action Plan has timelines with budgetary provisions?
 - iii. What time has been fixed to completely comply with the provisions of the Rules, 2016?
 - iv. What are the main constraints of non-compliance of Rules, 2016?
6. Accordingly, meetings were held between 02.8.2018 to 20.08.2018 with all the States and UTs which showed that there was substantial non-compliance of the Rules and judgment of the Tribunal in *Almitra Patel (supra)*. Execution of orders of NGT impacting environment generally, though significant, remains a challenge. Merely passing of orders, without their execution defeats the object for which NGT has been set up. Section 25 of the Act confers power of executing court. Mode of execution is laid down in CPC (Section 51), i.e., arrest and detention, appointment of a receiver or in such manner as nature of relief may require. There are provisions for prosecution, including of heads of departments of the Government. On 'Polluter Pays' principle, damages can be recovered not only from the polluters but also from the State functionaries who collude with the polluters. The PCBs and the States have not been fully successful in their performance of duties to protect environment, as noted in judgement of Hon'ble Supreme Court as well as this Tribunal². We thus thought of constituting committees with the involvement of former High Court Judges or senior bureaucrats as a machinery for effective execution of orders of the Tribunal having bearing on public health.
7. Accordingly, the Tribunal, while directing that the action plan be submitted latest by 31.10.2018 after looking into the successful models and executing it

² *Aryavart Foundation v. M/s Vapi Green Enviro Ltd. & Ors*, O. A. No.95/2018

latest by 31.12.2019 which may be overseen by the Principal Secretaries of Urban Development and Rural Development, constituted the Apex Monitoring Committee (AMC), Regional Monitoring Committees (RMCs), State Level Committees (SLCs) and directed nomination of Nodal Officers at the level of the Local Bodies and Committees for bigger Local Bodies. The role of the RMCs, as per para 19 of the order, required regular meetings to monitor taking necessary steps, including compliance of SWM Rules, 2016 including at or around railway platforms, railway tracks, bus stands or other places frequented by public. The RMCs were directed to ensure that mixing up of bio-medical waste and municipal solid waste does not take place and that bio-medical waste is processed as per the Bio-Medical Waste Management Rules, 2016. The role of State level Committees was specified in para 21 to have interaction with the Local Bodies once in two weeks and to consider the reports of the Local Bodies which were to be given twice a month. The Committees are to complete the task within one year. In para 23, it was directed that guidelines be issued for using CCTV cameras at dumping or other sites and to have garbage collection vans fitted with GPS. The Tribunal also observed that public involvement may be encouraged and the status of waste management be put in public domain including health impacts associated with unscientific disposal. The State Level Committees were to give reports to the Regional Level Committees which were to oversee the compliance of the Rules including preparation and implementation of Action Plans.

8. It was observed that either no Action Plans had been prepared as required under the Rules or the plans prepared proposed only 50% to 75% waste disposal as per Rules. There were no plans for rural areas and hilly terrains. The result was accumulation of legacy waste in the form of huge dumps of garbage and unscientific disposal of waste, impacting the public health, degrading forests and water bodies, apart from causing air pollution.³ Albeit,

³ <https://swachhindia.ndtv.com/nearing-35-years-ahmedabads-pirana-landfill-is-infamous-for-its-garbage-mountains-and-frequent-fires-11855/>- accumulation of waste at Pirana landfill site, Ahmedabad, causing frequent fire,

in certain places efforts are successful to deal with legacy waste⁴, most States are grappling with the issue. Such successful model may be replicated suitably. Accordingly, it was required that integrated plans are prepared on scientific lines to manage the solid waste after detailed study and consultation with the experts. It was also necessary that every State and Union Territory follows the SWM Rules in letter and spirit. There was need for monitoring of the steps required to be taken under the Rules as well as the binding earlier directions of this Tribunal and the Hon'ble Supreme Court. Need for performance audit was also noted.

9. The Tribunal also dealt with the issue of compliance of SWM and associated Rules on railway tracks and railway platforms in *Saloni Singh & Ors. v. Union of India & Ors.*, and directed constitution of teams of responsible officers by the Railway Administration to take steps by framing suitable action plans, removing encroachments and undertaking landscape of vacated land parcel.⁵
10. Certain minor modifications have been made in the said order on two-three occasions to deal with the issues which arose out of implementation of the order dated 20.08.2018 such as honorarium/remuneration, providing logistics and modifications in the manning of the Committees etc⁶.

<https://www.indiatoday.in/education-today/gk-current-affairs/story/ghazipur-garbage-dump-delhi-largest-landfill-site-1329240-2018-09-01>- accumulation of waste at Gazipur dumping site.

⁴ <http://www.xaam.in/2019/01/indore-ias-officer-clears-13-lakh-tons.html>

⁵ O.A. No. 141/2014 order dated 01.10.2018

⁶ (i) Order dated 19.09.2018 in O.A. No. 606/2018: on composition of Eastern Regional Monitoring Committee to include West Bengal State Pollution Control Board and providing remuneration/honorarium for Chairpersons of the Committees.

(ii) Order dated 12.10.2018 in O.A. No. 606/2018: redefining composition of Northern Regional Monitoring and constituting a separate Committee for the State of U.P. under the Chairmanship of Justice D.P. Singh

(iii) Order dated 30.10.2018 in O.A. No. 606/2018: directing that the Principal Secretary, Municipal Administration and Water Supply Department, Government of Tamil Nadu will be the Member – Secretary of the Monitoring Committee for the Southern Region instead of Principal Secretary, Urban Development, Tamil Nadu. The Tribunal further emphasized that each village, town and a city of State should have Action Plan management of Municipal Solid Waste, Bio-medical waste, Plastics waste and Construction and Demolition waste as per the respective rules in a time- bound manner. Further, Urban Development Department of the State of Madhya Pradesh was directed to facilitate the working of the Central Regional Monitoring Committee.

(iv) Order dated 20.11.2018 in O.A. No. 606/2018: noting that Central Regional Monitoring Committee has begun its functioning.

III. CONSIDERATION OF REPORTS OF COMMITTEES

11. The matter has been put up for consideration of reports received from Apex and Regional Monitoring Committees. We have perused the reports of the U.P. Solid Waste Management Monitoring Committee dated 25.10.2018 which deals with the general issue; report dated 30.11.2018 which deals with the issue of solid waste management in King George Medical University, Lucknow; report dated 17.11.2018 deals with regard to compliance of the Rules by Baba Raghav Das (BRD) Medical College, Gorakhpur and the report dated 24.12.2018 with regard to the Kumbh Mela.
12. We have perused the 'preliminary' report of the Apex Monitoring Committee dated 03.12.2018, the report of the Regional Monitoring Committees from Southern Zone dated 10.11.2018, report dated 13.11.2018 from Central Zone Regional Monitoring Committee, the report dated 15.11.2018 from the Northern Zone Regional Monitoring Committee and the report dated 04.12.2018 from Eastern Zone Regional Monitoring Committee. The same are taken on record. Copies of the above reports be forwarded to the CPCB for coordination in accordance with Rule 14 of the SWM Rules, 2016. The CPCB may furnish comments and action taken report to this Tribunal within one month by e-mail at ngt.filing@gmail.com.
13. Before we consider the reports from the UP Committee, it may be appropriate to mention that an administrative interaction was held on 04.12.2018 by all the Members of the Tribunal with the Chairpersons of Apex and Regional Monitoring Committees. The progress did not appear to be significant. The impression is fortified by perusing the reports received so far. It is clear that inspite of five months after comprehensive review was undertaken by the

Tribunal and orders were passed, the compliance of order of the Tribunal dated 22.12.2016 in *Almitra Patel (supra)* remains a challenge.⁷ Orders of Tribunal showing serious failure in complying with the Rules include the following- (i) *Venkatesh & Ors. v. Union of India & Ors.*⁸, (ii) *Ankita Sinha v. State of Maharashtra & Ors.*⁹, (iii) *Rakesh Kashyap v. State of Himachal Pradesh & Ors.*¹⁰ (iv) *Sukhdev Vihar Resident's Welfare Association v. State of Delhi & Ors.*¹¹ The above are only illustrative of the grave situation being faced. In view of this, we propose to consider some modifications for more effective results.

14. We now refer to the reports from the UP Committee. In the report dated 30.11.2018, the recommendations have been made for the following action:

- "1. KGMU be saddled with compensatory cost of Rs. 10 lakh which may be deposited in Ayushman Yojana fund, ear-marked for BPL citizens to provide them free treatment.
2. KGMU be directed to strictly comply with the BMW Rules-2016 and the biomedical wastes categories, their segregation, collection, treatment, processing and disposal options be done as per Schedule I of the BMW Rules 2016 and accordingly take appropriate actions within a period of three months.
3. KGMU be directed to be compliant with Rule 4(g), BMW Rules 2016 and provide training to all its health care workers and others, involved in handling of bio medical waste at the time of induction and thereafter at least once every year and the details of training programmes conducted, number of personnel trained and number of personnel not undergone any training shall be provided in the Annual Report.
4. Untreated human anatomical waste, animal anatomical waste, soiled waste and biotechnology waste shall not be stored beyond a period of forty-eight hours as mandated under Rules 8 of BMW Rules 2016.
5. KGMU administration be directed to provide personal protective equipments (PPE) to all the staff engaged in bio-medical waste.
6. KGMU should obtain water and air consent from the UPPCB.
7. KGMU be directed to install STP and ETP immediately, say within four months. 8. KGMU be directed to carry out all routine tests, validation tests, spore tests as per Schedule-II of BMW Rules-2016 forthwith."

⁷ *Mrs. Almitra H. Patel v. U.O.I.*, O.A. No. 199/2014 Judgement dated 22.12.2016

⁸ O.A.No. 711 of 2018, order dated 22.10.2018- Illegal dumping of solid waste at Balagur, Bengaluru. BBMP was directed to deposit Rs. 5 Crores as environmental compensation for damage to the environment.

⁹ O.A. No. 510/2018 order dated 30.10.2018- Municipal Solid Waste dumping site at Deonar, Mumbai was not complying with SWM Rules, 2016. Tribunal directed Municipal Corporation, Greater Mumbai to deposit Rs. 5 Crores as environmental compensation with CPCB for restitution of environment.

¹⁰ O.A. No. 189/2017, order dated 27.08.2018- Municipal Corporation, Theog, Shimla illegally permitted dumping of solid waste of forest land. The Tribunal directed shifting of the site and directed Municipal Corporation to pay an amount of Rs. 5 lakhs as environmental compensation.

¹¹ O.A. No. 640/2018 order dated 27.09.2018: Tribunal directed that if the project proponents fail to maintain the standards, even after carrying out the deficiencies noticed in the joint inspection Report, CPCB may recommend the amount of environmental damage required to be paid by them.

15. The report dated 17.11.2018 with regard to compliance of the Rules by Baba

Raghav Das Medical College, Gorakhpur, proposes following directions:

- "(i) Admission of children between upto the age of 10 or 15 years brought for treatment in BRD Medical College, Gorakhpur be stopped forthwith for two months, subject, however, to the compliance of the provisions of Bio-Medical Waste (Management and Handling) Rules, 2016. In emergency cases, only those children brought in critical conditions be admitted for treatment, provided the facility for their treatment is not available in other hospitals, private or government.*
- (ii) The BRD Medical College, Gorakhpur and the Government of UP be directed to provide infrastructure for disposal of bio-medical waste strictly in accordance to the Rules of 2016 (supra) within two months.*
- (iii) Cost of rupees five crores or more, as the Hon'ble NGT may in the facts and circumstances deem appropriate, be imposed on the BRD Medical College and the amount of cost so recovered be reimbursed amongst the bereaved families whose children died during the past two years i.e. after the date of notification and coming into force the Rules of 2016. The Medical College must be having the addresses of such families, recorded at the time of admission of their children. Certain portion of said cost be recovered from the salaries of Principal and those officers/officials of the Medical College, who are responsible for non-compliance of the Rules of 2016. The District Magistrate, Gorakhpur may supervise the whole process.*
- (iv) The Medical Council of India be directed to send its team to inspect the BRD Medical College, Gorakhpur and submit report to take appropriate action in the matter and to maintain the standard of medical education in the College. On the basis of the said report and the recommendations, necessary infrastructure be developed and admission of the patients be regulated."*

16. In report dated 24.12.2018 with regard to Kumbh Mela, following recommendations have been made:

"17. We request the Hon'ble NGT to permit the use of fund with UPPCB under environmental compensation corpus to a limited extent under strict supervision of Monitoring Committee and the Principal Secretary, Urban Development for advertisement through posters, audio-visuals, handbills and electronic media, etc in whole of the State of UP in case the Government suffers from financial crunch.

Shri Anurag Yadav, Secretary, Urban Development appears to have got very positive approach and helping in nature. He undertakes that he and his Government shall enforce the decisions taken hereinabove, not only during Kumbh Mela but as far as possible, all over the State. We appreciate the zeal and workaholic nature of Shri Anurag Yadav, IAS, Secretary, Urban Development. The decision taken and reproduced hereinabove in the meeting of the Monitoring Committee may be looked into and

in case the Hon'ble NGT pleases, the same may be approved for future course of action and make it binding on the State Government and its authorities.

It is further requested that in case Hon'ble NGT pleases, alike posters may be prepared in all the States in regional/local language by Chairmen, Monitoring Committees and its soft copy be forwarded to Kumbh Mela Adhikari, State Monitoring Committee/Secretary, Urban Development UP so that posters in different languages may be pasted in Kumbh Mela to educate the people visiting there."

17. We do not propose to take the above reports to the logical end straightaway in these proceedings. The recommendations involve administrative action at the level of Health Department and Urban Development Department of the State. It also involves exercise of statutory powers by the SPCBs. The issues may be first dealt with by concerned administrative and statutory authorities.

IV DIRECTIONS ON THE REPORTS OF THE COMMITTEES

18. Accordingly, recommendations in the reports will stand disposed of with following directions:

- (i) The report dated 30.11.2018 with regard to King George Medical University be forwarded forthwith to the Principal Secretary, Health Department, Principal Secretary, Urban Development Department, Uttar Pradesh Pollution Control Board (UPPCB) and the CPCB for being appropriately dealt with.
- (ia) The Principal Secretaries, Health Department and Urban Development Department, Uttar Pradesh may take such steps as are in their domain and furnish their action taken reports within one month by e-mail at ngt.filing@gmail.com.
- (ib) The UPPCB may exercise powers *inter-alia* under Rule 16 of the SWM Rules, 2016, the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 and apart

from other steps, determine and recover the amount of damage after following due procedure. Pending such consideration, we direct King George Medical University to deposit interim compensation of Rs. 10 Lakhs with the UPPCB. The UPPCB may spend the amount for restoration of the environment and to help the victims of diseases, wherever necessary and also conduct appropriate health impact study and furnish action taken report to this Tribunal within one month by e-mail at ngt.filing@gmail.com.

- (ic) The CPCB may coordinate the matter in terms of Rule 14 of the SWM Rules, 2016 and furnish action taken report to this Tribunal within one month by e-mail at ngt.filing@gmail.com.

(ii) Similarly, report dated 17.11.2018 with regard to Baba Raghav Das (BRD) Medical College may be sent to the above authorities for taking similar action.

- (iia) The Principal Secretaries, Health Department and the Urban Development Department, Uttar Pradesh may consider the recommendations and take appropriate action in their domain and furnish their respective reports within one month by e-mail at ngt.filing@gmail.com.

- (iib) The UPPCB may exercise of powers *inter-alia* under Rule 16 of the SWM Rules, 2016, the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 and apart from other steps, determine and recover the amount of damage after following due procedure. Pending such consideration, Baba Raghav Das (BRD) Medical College, Gorakhpur may deposit interim compensation of Rs. 1 Crore with the SPCB. The SPCB may spend the amount for restoration of the environment as well as to help the victims of diseases as may be found viable, after conducting appropriate health impact

study and furnish an action taken report to this Tribunal within one month by e-mail at ngt.filing@gmail.com.

- (iic) The CPCB may coordinate the matter in terms of Rule 14 of the SWM Rules, 2016 and furnish action taken report to this Tribunal within one month by e-mail at ngt.filing@gmail.com.
- (iii) The report dated 24.12.2018 may be forwarded to the Kumbh Mela authority. The UPPCB may permit part use of environmental compensation corpus available with it in the manner suggested by the Committee, subject to concurrence of the Committee and the Principal Secretary of the Urban Development, Uttar Pradesh. Copies of the report be sent to the Principal Secretary, Urban Development Department, the UPPCB and the CPCB and they may furnish their action taken reports to this Tribunal within one month by e-mail at ngt.filing@gmail.com, in the manner mentioned earlier in direction (i) and (ii).

V. DELIBERATION

19. As per order dated 20.08.2018, action plans were to be submitted latest by 31.10.2018 and executed by 31.12.2019. Rule 22 of the SWM Rules provides timelines in this regard which are as follows:

Sl. No.	Activity	Time limit from the date of notification of rules
(1)	(2)	(3)
1.	Identification of suitable sites for setting up solid waste processing facilities	1 year
2.	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	1 year
3.	Procurement of suitable sites for setting up solid waste processing facility and sanitary landfill facilities	2 years

4.	<i>Enforcing waste generators to practice segregation of bio degradable, recyclable, combustible, sanitary waste domestic hazardous and inert solid wastes at source</i>	<i>2 years</i>
5.	<i>Ensure door to door collection of segregated waste and its transportation in covered vehicles to processing or disposal facilities.</i>	<i>2 years</i>
6.	<i>ensure separate storage, collection and transportation of construction and demolition wastes</i>	<i>2 years</i>
7.	<i>setting up solid waste processing facilities by all Local Bodies having 100000 or more population</i>	<i>2 years</i>
8.	<i>Setting up solid waste processing facilities by Local Bodies and census towns below 100000 population.</i>	<i>3 years</i>
9.	<i>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 untreatable inert wastes as permitted under the Rules</i>	<i>3 years</i>
10.	<i>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</i>	<i>3 years</i>
11.	<i>bio-remediation or capping of old and abandoned dump sites</i>	<i>5 years</i>

20. Timelines of two years have expired as rules came into force on 08.04.2016. Timeline of three years is going to expire on 08.04.2019. However, for bio-remediation, timelines of five years has been provided. On 'Polluter Pays' principle, the polluters must be required to pay damages by the concerned authorities. Failure to do so may render the authorities also liable to pay damages as has been directed in several orders of this Tribunal.¹² Performance Guarantee may also be required if there is no improvement.¹³

21. The issue of solid waste management is of paramount importance for protection of environment. Failure to address this issue in a satisfactory manner, impacts air pollution as well as water pollution. It is partly on that

¹² *All India Lokadhikar Sangathan vs. Govt of NCT Delhi & Anr*, E.A No. 11/2017, Date of Order 16.10.2018; *Sobha Singh vs. State of Punjab & Ors*, O.A. No. 916/2018, Date of Order 14.11.2018; *Threat to life arising out of coal mining in south Garo Hills district v. State of Meghalaya & Ors*, O.A No. 110 (TMC)/2012, Date of Order 04.01.2019; *Ms. Ankita Sinha vs. State of Maharashtra & Ors*, O.A. No. 510/2018, Date of Order 30.10.2018, *Sudarsan Das vs. State of West Bengal & Ors*, O.A. No. 173/2018, Date of Order 04.09.2018; *Court on its Own Motion vs. State of Karnataka*, O.A. No. 125/2017, Date of Order 06.12.2018.

¹³ *Ibid*.

account that the statistics mentioned in certain studies paint dismal picture of environment in terms of number of deaths and diseases. These studies have already been referred by this Tribunal in certain orders, including the recent order dated 04.01.2019 in *Threat to life arising out of coal mining in south Garo Hills district v. State of Meghalaya & Ors* (O.A No. 110 (THC)/2012)¹⁴. It was observed:

"28. It is a matter of serious concern that compliance of environment norms is not satisfactory and result is large scale deaths and diseases and serious damage to air, water and earth. As per CPCB report, 351 river stretches in the country are polluted, 102 cities are classified as non-attainment cities in terms of ambient air quality, there are 100 industrial clusters. There is wide gap in compliance of statutory rules for waste disposal, which issues are subject matter of proceedings before this Tribunal.

29. The above shows that in-spite of statutory framework and binding legal precedents and orders, violation of law is rampant. Stern approach is, thus, required against the polluters as well as statutory authorities conniving or colluding with the polluters. The statutory authorities are trustees of the people and if their failure results in harm to the citizens or to the environment, the Court/Tribunal has to adopt strict approach to make them accountable so that such action acts as deterrent to prevent further harm".¹⁵

¹⁴O.A. No. 110 (THC)/2012- *Threat to life arising out of coal mining in south Garo Hills district v. State of Meghalaya & Ors.*

¹⁵ (a). O.A. No. 673/2018, News item published in 'The Hindu' authored by Shri Jacob Koshy Titled "More river stretches are now critically polluted: CPCB" dated 20.09.2018: wherein the Tribunal issued directions to prepare and implement Action Plans to rejuvenate and restore the 351 polluted river stretches. (b) Original Application No. 681/2018, News Item Published in "The Times of India" Authored by Shri Vishwa Mohan Titled "NCAP with Multiple timelines to Clear Air in 102 Cities to be released around August 15" dated 08.10.2018: wherein the Tribunal directed Action Plans to be prepared for the 102 non-attained cities to bring the standards of air quality within the prescribed norms. (c) Original Application No. 1038/2018, News item published in "The Asian Age" Authored by Sanjay Kaw Titled "CPCB to rank industrial units on pollution levels" dated 13.12.2018: wherein the Tribunal directed preparation of time bound Action Plans to ensure that all industrial clusters comply with the parameters laid down in Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974. (d) Original Application No. 606/2018, Compliance of Municipal Solid Waste Management Rules, 2016 dated 31.08.2018: wherein the Tribunal constituted Apex and Regional Monitoring Committees for effective implementation of MSW Rules, 2016.

22. Vide order dated 11.01.2019 in *Aryavart Foundation v. M/s Vapi Green Enviro Ltd. & Ors (Original Application No.95/2018)*¹⁶ it was observed:

*"It is well acknowledged that there is serious threat to the environment in this country. Studies show huge number of pollution related deaths and diseases. Any violation of laid down environmental norms has to be seriously viewed and sternly dealt with."*¹⁷

23. Again vide order dated 11.01.2019 in *"News Item Published In 'The Times of India' Authored by Shri. Vishwa Mohan Titled "NCAP with Multiple Timelines to Clear Air in 102 Cities to be released around August 15" (Original Application No. 681/2018)*¹⁸ it was observed:

*"According to a survey, 15,000 persons died prematurely in Delhi in the year 2016. Delhi was ranked as third in the list of cities reporting most deaths due to air pollution. Premature deaths in Mumbai, Kolkata, Bangalore and Chennai are reported to be between 5,000-10,000 in 2016."*¹⁹

24. Concept of sustainable development which guides this Tribunal under Section 20 of the NGT Act, 2010 cannot be upheld unless the above issues of massive degradation of environment are handled on war footing. Directions have been issued by this Tribunal to prepare action plans for restoration of 351 polluted river stretches, restoration of air quality in 102 "non-attainment cities", restoration of environment in 100 critically polluted

¹⁶ *Aryavart Foundation v. M/s Vapi Green Enviro Ltd. & Ors*, O.A. No.95/2018

¹⁷https://niti.gov.in/writereaddata/files/new_initiatives/presentation-on-CWMI.pdf- India ranks 120th in 122 countries in Water Quality Index as per Niti Ayog Report, <https://www.thehindu.com/sci-tech/energy-and-environment/india-ranked-no-1-in-pollution-related-deaths-report/article19887858.ece>- Most pollution-linked deaths occur in India, <https://www.hindustantimes.com/india-news/delhi-world-s-most-polluted-city-mumbai-worse-than-beijing-who/story-m4JFT063r7x4Ti8ZbHF7mM.html>- Delhi's most polluted city, Mumbai worse than Beijing as per WHO; http://www.un.org/waterforlifedecade/pdf/global_drinking_water_quality_index.pdf- WHO Water Quality Index

¹⁸ News Item published in 'The Times of India' Authored by Shri. Vishwa Mohan Titled "NCAP with Multiple Timelines to Clear Air in 102 Cities to be released around August 15" O.A. No. 681/2018-<http://www.greentribunal.gov.in/DisplayFile.aspx>

¹⁹<https://www.ndtv.com/delhi-news/delhis-air-pollution-has-caused-of-death-of-15-000-people-study-1883022>.

industrial clusters and compliance of directions of SWM Rules, 2016 apart from the directions for effective regulations of sand mining²⁰, regulation of ground water²¹.

25. The above directions with regard to polluted rivers, polluted air, polluted industrial clusters and issues of illegal sand mining are also inter-linked with compliance of SWM Rules, 2016 as also with Hazardous and Other Wastes Management Rules, 2016, Bio-medical Wastes Management Rules, 2016, Construction and Demolition Wastes Management Rules, 2016 and Plastics Wastes Management Rules, 2016, E-waste (Management) Rules, 2016 etc. A holistic view is required to be taken. All factors degrading environment need to be addressed in an integral manner. This is to be guided by the principle of 'Sustainable Development'. This requires coordination with several authorities of a State. Such coordination, having regard to serious impact on health and environment must be coordinated at the highest level periodically. This requires involvement of Chief Secretaries/Administrators of all the States and UTs. We have noted in several orders that compliance is a serious issue and satisfactory progress is not being achieved.²²
26. As noted earlier in para 13, it may be appropriate to mention that an administrative interaction was held on 04.12.2018 by all the members of the Tribunal with the Chairpersons of Apex and Regional Monitoring Committees. The progress did not appear to be significant. The impression is fortified by perusing the reports so far received. It is clear that inspite of five months after comprehensive review was undertaken by the Tribunal and orders were passed, the compliance of order of the Tribunal dated 22.12.2016 in *Almitra Patel (supra)* remains a challenge. The pattern of Committees needs

²⁰ *Sudarsan Das vs. State of West Bengal & Ors.* O.A. No. 173/2018 Order dated 04.09.2018

²¹ *Shailesh Singh vs. Hotel Holiday Regency, Moradabad & Ors.* O.A. No. 176/2015, order dated 3.1.2019

²² *Aryavart Foundation v. M/s Vapi Green Enviro Ltd. & Ors* O.A. No.95/2018

modification. Coordination at Regional level does not appear to be as effective as expected.

VI. DIRECTIONS

27. Instead of having Regional Monitoring Committees constituted vide order dated 20.08.2018, the State Level Committees may function in the modified form as is being now directed. Chairpersons of the Regional Committees may continue to be the Chairpersons of the particular State/UT Committee as mentioned below. Other Members may be the officers of the particular respective State.

28. In this respect, following directions/clarifications are issued:

- i. For all the States and UTs, the Member Secretaries of the PCBs/PCCs will be the Member Secretaries of the Committees, other members being Secretaries, Urban Development/Local Bodies/Local Self-Government, Environment, Rural Development Health and representatives of CPCB, wherever office of CPCB exists or representative is nominated by CPCB. Logistics and honorarium will be provided by the respective SPCB/PCCs which can be met out from Environment Compensation funds on the basis of 'Polluter Pays' principle or otherwise. If SPCBs/PCCs do not have requisite funds to provide logistic support, CPCB will provide funds to SPCBs/PCCs. In case of any difficulty, CPCB may coordinate any such issues. The honorarium will be paid as per order of the Tribunal in this matter dated 19.09.2018²³ and in *Amresh Singh v. Union of India & Ors.*²⁴ Where the Chairperson is receiving remuneration/honorarium in

²³ See order dated 19.9.2018 of this Tribunal in O.A No. 606/2018 to the effect that the non-official Chairperson will be paid consolidated amount equal to basic pay of the post held by the incumbent. A former Judge of Hon'ble Supreme Court will be entitled to Rs. 2.50 Lakhs per month. A former Judge of the High Court will be paid Rs. 2.25 Lakhs per month. On same pattern, remuneration may be fixed for any other retired Member.

²⁴ a. E.A. No.32/2016 order dated 15.11.2018- Clarifying that while the State may provide the logistics and other facilities, the financial aspects may be taken care of by the State Pollution Control Boards/Committees. The financial aspects will include the remuneration or other incidental expenses which may be increased with

one Committee constituted by the NGT, he may not receive extra/double remuneration but may be provided requisite logistics as may be required. The Committees may work tentatively for six months or as may be found necessary.

ii. Chairpersons will be as follows:

S.No.	State/UT	Chairperson
1	Andhra Pradesh	Justice B. Seshasayana Reddy, former Judge, Andhra Pradesh High Court
2	Assam	Mr. Ranjit Shekhar Mooshahary, IPS former Governor of Meghalaya
3	Bihar	Justice Samarendra Pratap Singh, former Judge, Patna High Court
4	Chhattisgarh	Justice Dharendra Mishra, Former Judge, High Court of Chhattisgarh
5	Gujarat	Justice Babulal Chandulal Patel, former Chief Justice, High Court of Delhi and former Judge of Gujarat High Court.
6	Haryana	Justice Pritam Pal, former Judge, High court of Punjab and Haryana*
7	Himachal Pradesh	Mrs. Rajwant Sandhu, former Chief Secretary of Himachal Pradesh *
8	Jammu & Kashmir	Justice Janak Raj Kotwal, former Judge, High Court of Jammu & Kashmir.*
9	Jharkhand	Justice Ramesh Kumar Merathia, former Judge, High Court of Jharkhand.*
10	Karnataka	Justice Subhash B. Adi, former Judge, High Court of Karnataka.
11	Kerala	Justice A.V Ramakrishna Pillai, former Judge, High Court of Kerala
12	Madhya Pradesh	Justice K.K Trivedi, former Judge, High Court of Madhya Pradesh.

a view to effectively execute the directions of this Tribunal. Such expenses may include secretarial assistance, travel as well as cost incurred for any technical assistance.

b. Apart from remuneration, all actual expenses incurred in taking assistance for secretarial working will be reimbursed by concerned PCB as already directed vide order dated 17.12.2018 E.A. No.32/2016, *Amresh Singh v. Union of India & Ors.*

13	Maharashtra	Justice J.P Devadhar, former Judge, High Court of Bombay.*
14	Manipur	Mr. Jarnail Singh, Ex-Chief Secretary, Manipur.
15	Odisha	Justice P.K. Mohanty, former Judge, Odisha High Court.
16	Punjab	Justice Pritam Pal, former Judge, High court of Punjab and Haryana*
17	Rajasthan	Justice Deepak Maheswari, former Judge, Rajasthan High Court
18	Sikkim	Justice A.P Subba, former Judge, High Court of Sikkim.
19	Tamil Nadu	Justice P. Jyothimani, former Judge, Madras High Court, former Judicial Member, NGT.
20	Telangana	Justice C.V. Ramulu, former Judge Andhra High Court.
21	Uttar Pradesh	Justice Devi Prasad Singh, former Judge, High Court of Allahabad. *
22	Uttarakhand	Justice U.C Dhyani, former Judge, High Court of Uttarakhand. *
23	West Bengal	Justice J.K Biswas, former Judge, High Court of Calcutta.* ²⁵

29. In other States/UTs, the Chief Secretaries/Administrators will be the Chairpersons, other members and Member Secretaries being same as mentioned earlier. The Committees may hold their first meeting positively before 15.02.2019 and thereafter hold meetings periodically as may be found necessary as per direction of the Chairperson of the Committee.

30. The Committee constituted under Rule 5,12 & 23 of the SWM Rules, 2016 will continue to work in tandem with the State Level Committees and the

²⁵ *Already appointed in other Committees of NGT

frequency of their meeting will be jointly worked out by the State Level Committee and the Committees constituted under the SWM Rule.

31. The CPCB may prepare Standard Operating Procedure (SOP) for implementation of Clause (J) to the Schedule-I of the SWM Rules, 2016 relating to Bio-mining and disposal of legacy waste within one month after considering successful modes, to be customized according to local conditions and circulate the same to the SPCBs and PCCs who in-turn may communicate to the Chief Secretary for implementation. CPCB will also convey these guidelines to MoHUA, Apex and State Level Committees and coordinate with them as per Rule 14 of SWM Rules.
32. The District Collectors under Rule 12 of SWM Rules, 2016 may meet monthly and forward the report to State Urban Development Department and send copy to the State Level Committee. The Committees may get report from District Collector once a month.
33. The Apex Monitoring Committee may interact with the State Committees in such manner as may be found necessary and give its report to this Tribunal once in a quarter. Apex Monitoring Committee may interact with the State Level Committees atleast once in a month. Chairpersons of the State Level Committee will be at liberty to visit the District Collector and other local authorities.
34. The expression 'remuneration' used in earlier orders will stand substituted by 'honorarium'.
35. Every State/UT may constitute a Special Task Force (STF) in every District having four members one each nominated by District Magistrate, Superintendent of Police, Regional Officer of the State Pollution Control Boards in concerned Districts and one person to be nominated by the

Chairman of the District Legal Services Authority (DLSA) for awareness about the SWM Rules, 2016 by involving educational, religious and social organizations including local Eco-clubs. The involvement of DLSA would be subject to the approval of the National Legal Services Authority which is the apex body under the Legal Services Authorities Act, 1987 by an appropriate administrative order. This will apply to order of the Tribunal in *Stench Grips Mansa's Sacred Ghaggar River (Suo-Moto Case) and Yogendra Kumar*²⁶, News item published in 'The Hindu' authored by Shri Jacob Koshy Titled "More river stretches are now critically polluted: CPCB"²⁷, Court on its own Motion v. NCT, Delhi & Ors.²⁸ and *M.C.Mehta v. Union of India & Ors.*²⁹

36. It has been repeatedly laid down by the Hon'ble Supreme Court that Information, Education and Communication (IEC) programmes can go a long way for protection of the environment. Such program can be successful if network of Legal Services Authorities and Educational Institutions at every level is involved. This is possible only if such instructions are issued on the administrative side by the NALSA and concerned Education Departments of the States. We request concerned authorities to take appropriate steps in view of the judgments of the Hon'ble Supreme Court in *M.C. Mehta v. Union of India & Ors.*³⁰ and *In Re: Noise Pollution* and Article 144 of the Constitution of India ³¹ Ministry of Health and Ministry of Railways in coordination with MoEF&CC may be involved in awareness programmes. Solid waste management issue impacts in a big way. Various departments of the Government, particularly Railway, Health and Defence. MoEF&CC may coordinate with the concerned

²⁶ O.A. No. 138/2016 order dated 27.08.2018

²⁷ O.A.No. 673/2018, order dated 20.09.2018

²⁸ Suo Moto Application No. 290/2017, order dated 24.10.2018

²⁹ O.A. No. 200/2014 order dated 29.11.2018

³⁰ (2004)1 SCC 571

³¹ (2005)5 SCC 733

Ministries in IEC programmes and furnish an Action Taken Report by email at ngt.filing@gmail.com.

37. We also make it clear that the rule of law has to be upheld. This Tribunal has laid down that the State itself is liable to pay compensation for its failure to perform duties in upholding environmental norms and can also be held liable for paying damages which may be recovered from the polluters and the erring officers.³²

38. We have already noted that 'Polluter Pays' principle can be applied by every regulatory authority and compensation can be and must be recovered from every polluter and the amount which is to be recovered spent for the restoration of the environment.³³ On the pattern of order dated 19.12.2018³⁴, the compensation for damage to the environment will be payable by each of the States/ UTs at the rate of Rs. One Crore per month for each of the Priority- I and Priority- II stretches, Rs. 50 lacs per month for stretches in Priority- III and Rs. 25 lacs per month each for Priority- IV and Priority- V stretches. The Tribunal may have to consider direction to require compensation to be paid for damage to the environment on monthly basis with incremental scale for the delay in compliance of the Rules. This aspect will be considered in the light of progress achieved by

³² *Aryavart Foundation v. M/s Vapi Green Enviro Ltd. & Ors* (O.A. No.95/2018) order dated 11.01.2019- wherein this Tribunal reiterated that 'Polluter Pays' principle is ingrained in the environmental jurisprudence of the country as well as statutory mandate under Section 20 of the NGT Act, 2010.; *Threat to life arising out of coal mining in south Garo Hills district v. State of Meghalaya & Ors* (O.A No. 110 (THC)/2012) order dated 04.01.2019- wherein this Tribunal held that it is necessary that the state machinery is required to compensate for their negligence and failure which may act as deterrent against the officers who neglected their basic duty of protecting the environment or colluded with the polluters and law violators. This is required not only as a part of principle of 'polluter pays' which applies not only to actual polluters but also to those who collude with polluters or enable pollution to be caused and also for the negligence of public duties, adversely affecting the citizens.

³³ *Threat to life arising out of coal mining in south Garo Hills district v. State of Meghalaya & Ors* O.A. No. 110(THC)/2012

³⁴ News Item published in "The Hindu" authored by Shri Jacob Koshy Titled "More river stretches are now critically polluted: CPCB" (O.A. No. 673/2018) vide order dated 19.12.2018- wherein this Tribunal held that compensation for damage to the environment will be payable by each of the States/ UTs at the rate of Rs. One Crore per month for each of the Priority- I and Priority- II stretches, Rs. 50 lacs per month for stretches in Priority- III and Rs. 25 lacs per month each for Priority- IV and Priority- V stretches.

the concerned States/UTs as may be shown from the reports furnished to this Tribunal by the Chief Secretaries or otherwise. On this aspect, CPCB, MoEF & CC and the Apex Committee may furnish their views on the subject within one month at ngt.filing@gmail.com.

VII. FURTHER PROCEEDINGS AND CONCLUSION

39. Accordingly, we direct the Chief Secretaries/Administrators of all States and UTs to review the progress on all the above issues and for the purpose, hold first meeting within one month from today. After the Chief Secretaries have monitored the matters, the Status Reports of compliance and immediate future plans may be presented/filed before this Tribunal. For this purpose, we direct the Chief Secretaries to remain present in person along with their reports on different dates mentioned below starting from 1st March, 2019 at 2:00 P.M:

S.No.	State/UT	Date of Meeting
1	Jammu & Kashmir	01.03.2019
2	Himachal Pradesh	05.03.2019
3	Haryana	06.03.2019
4	Punjab	07.03.2019
5	Uttarakhand	08.03.2019
6	NCT Delhi	11.03.2019
7	Uttar Pradesh	12.03.2019
8	Chandigarh	13.03.2019
9	West Bengal	14.03.2019
10	Bihar	15.03.2019
11	Jharkhand	25.03.2019
12	Odisha	26.03.2019
13	Arunachal Pradesh	27.03.2019
14	Assam	28.03.2019

15	Tripura	29.03.2019
16	Manipur	01.04.2019
17	Meghalaya	02.04.2019
18	Mizoram	03.04.2019
19	Nagaland	04.04.2019
20	Sikkim	05.04.2019
21	Maharashtra	08.04.2019
22	Gujarat	09.04.2019
23	Goa	10.04.2019
24	Daman & Diu	11.04.2019
25	Dadra and Nagar Haveli	12.04.2019
26	Madhya Pradesh	15.04.2019
27	Rajasthan	16.04.2019
28	Chhattisgarh	22.04.2019
29	Tamil Nadu	23.04.2019
30	Karnataka	24.04.2019
31	Kerala	25.04.2019
32	Andhra Pradesh	26.04.2019
33	Telangana	29.04.2019
34	Puducherry	30.04.2019
35	Andaman & Nicobar Islands	01.05.2019
36	Lakshadweep Islands	02.05.2019

40. The Chief Secretaries may acquaint and keep themselves ready on the following points:

- a. Status of compliance of SWM Rule, 2016, Plastic Waste Management Rules, 2016 and Bio-Medical Waste Management Rules, 2016 in their respective areas.
- b. Status of functioning of Committees constituted by this order.
- c. Status of the Action Plan in compliance vide order dated 20.09.2018 in the News Item published in "The Hindu" authored

by Shri Jacob Koshy Titled "More river stretches are now critically polluted: CPCB (Original Application No. 673/2018).

- d. Status of functioning of Committees constituted in News Item Published in "The Times of India" Authored by Shri Vishwa Mohan Titled "NCAP with Multiple timelines to Clear Air in 102 Cities to be released around August 15" dated 08.10.2018
- e. Status of Action Plan with regard to identification of polluted industrial clusters in O.A. No. 1038/2018, News item published in "The Asian Age" Authored by Sanjay Kaw Titled "CPCB to rank industrial units on pollution levels" dated 13.12.2018.
- f. Status of the work in compliance of the directions passed in O.A. No. 173 of 2018, Sudarsan Das v. State of West Bengal & Ors. Order dated 04.09.2018.
- g. Total amount collected from erring industries on the basis of 'Polluter Pays' principle, 'Precautionary principle' and details of utilization of funds collected.
- h. Status of the identification and development of Model Cities and Towns in the State in the first phase which can be replicated later for other cities and towns of the State.

41. It is made clear that Chief Secretaries may not delegate the above function and the requirement of appearance before this Tribunal to anyone else. However, it will be open to them to change the date, by advance intimation by email at NGT website i.e. ngt.filing@gmail.com, to adjust their convenience.

42. The States will also display on their respective websites and the websites of the Pollution Control Boards/Committees the progress made on each of the above issues, consistent with directions in some of the earlier order, including the order dated 19.12.2018 in *News item published in "The*

Hindu" authored by Shri Jacob Koshy Titled "More river stretches are now critically polluted: CPCB (Original Application No. 673/2018).

43. MoEF & CC may coordinate with the concerned organizations/association of industries to indicate a programme to reduce the quantum of waste by appropriate strategies including use of less packaging material keeping in mind such initiatives elsewhere.
44. The Chief Secretaries of the States and UTs may ensure that all the drains (big or small) are tapped with appropriate measures (wire nets etc.) and no municipal solid and plastic waste is allowed to reach our river systems, lakes, water bodies, ponds, marsh lands and wetlands etc.
45. We are also of the view in accordance with the Rule 14 of the Rules, the CPCB may assign an officer to coordinate with the Committees constituted under this order or other orders where the Committees are headed by the former Judges and senior bureaucrats. Since Dr. A.B. Akolkar, former Member Secretary, CPCB has been associated with such coordination and the CPCB has engaged his services, he may continue to be engaged for the purpose and provided requisite logistics to carry out his duties.
46. List for further consideration on above dates and thereafter on July 10, 2019.

Adarsh Kumar Goel, CP

S.P. Wangdi, JM

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

January 16, 2019
Original Application No. 606/2018
AK



Item No. 01

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 606/2018

Compliance of Municipal Solid Waste Management Rules, 2016
(State of West Bengal)

Date of hearing: 02.04.2019

CORAM: **HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON**
HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

For Applicant(s):

For Respondent (s):

Mr. Malay Kumar Dey, Chief Secretary, Government of West Bengal, Mr. Indavar Pandey, ACS, Government of West Bengal, Mr. Nayaran Swarup Nigam, Transport Secretary, Dr. Krishna Gupta, Resident Commissioner, Mr. Sanjay Bansal, CEO, KMDA, Mr. Niraj Singhal, Member, WBPCB, Dr. Kalyan Rudra, Chairman, WBPCB, Dr. Tapas Gupta, Chief Engineer, WBPCB
 Mr. Raja Chatterjee, Mr. Piyush Sachdev, Mr. Adeel Ahmed, Ms. Runamoni Bhuyan and Ms. Abhinandini Yadav, Advocates

ORDER

1. The issue for consideration is status of compliance of orders of this Tribunal on the subject of solid waste management and allied issues.

I. PROCEEDINGS IN ALMITRA PATEL:

2. The matter arose before this Tribunal on transfer of proceedings in *Writ Petition No. 888/1996, Almitra H. Patel Vs. Union of India & Ors.*, by the Hon'ble Supreme Court, vide order dated 02.09.2014.
3. We may note that the issue has been subject matter of consideration before the Hon'ble Supreme Court in several proceedings, including in *Municipal Council, Ratlam vs. Vardhichand*¹ and *B.L. Wadhera v. Union of India and Ors.*². It has been categorically laid down that clean environment is fundamental right of citizens under Article 21 and it is for the local bodies as well as the State to ensure that public health is

¹ (1980) 4 SCC 162

² (1996) 2 SCC 594

preserved by taking all possible steps. For doing so, financial inability cannot be pleaded.

4. The Hon'ble Supreme Court had appointed Barman Committee which gave report on 06.01.1998 and it was duly accepted. The same led to draft for management of MSW Rules, 1999 which were replaced by 2000 Rules and are now succeeded by 2016 Rules. The Hon'ble Supreme Court gave directions for proper management of municipal solid waste, *inter-alia*, vide orders dated 24.08.2000, 04.10.2004, 15.05.2007 and 19.07.2010.
5. All the States were parties before the Hon'ble Supreme Court and draft action plans were prepared which were to be updated, as per revised Rules.
6. It has been observed by the Hon'ble Supreme Court in *Almitra H. Patel and Anr. v. Union of India and Ors.*³ that the local authorities constituted for providing services to the citizens are lethargic and insufficient in their functioning which is impermissible. Non-accountability has led to lack of effort on the part of the employees. Domestic garbage and sewage along with poor drainage system in an unplanned manner contribute heavily to the problem of solid waste. The number of slums of multiplied significantly occupying large areas of public land. Promise of free land attracts more land grabbers. Instead of "slum clearance" there is "slum creation" in cities which is further aggravating the problem of domestic waste being strewn in the open. Accordingly, the Court directed that provisions pertaining to sanitation and public health under the DMC Act, 1957, the New Delhi Municipal Council Act, 1994 and Cantonments Act, 1994 be complied with, streets and public premises be cleaned daily, statutory authorities levy and recover charges from any person violating laws and ensure scientific disposal of waste, landfill sites be identified

³ (2000) 2 SCC 678

keeping in mind requirement of the city for next 20 years and environmental considerations, sites be identified for setting up of compost plants, steps be taken to prevent fresh encroachments and compliance report be submitted within eight weeks.

7. The Hon'ble Supreme Court again in *Almitra H. Patel and Anr. v. Union of India and Ors.*⁴ while further reviewing the progress noted the following suggestions for consideration by the State Governments and Central Government and SPCBs/PCCs:-

"1. As a result of the Hon'ble Supreme Court's orders on 26.7.2004, in Maharashtra the number of authorizations granted for solid waste management (SWM) has increased from 32% to 98%, in Gujarat from 58% to 92% and in M.P. from NIL to 34%. No affidavits at all have been received from the 24 other States/UTs for which CPCB reported NIL or less than 3% authorisations in February 2004. All these States and their SPCBs can study and learn from Karnataka, Maharashtra and Gujarat's successes.

2. All States/UTs and their SPCBs/PCCs have totally ignored the improvement of existing open dumps, due by 31.12.2001, let alone identifying and monitoring the existing sites. Simple steps can be taken immediately at almost no cost by every single ULB to prevent monsoon water percolation through the heaps, which produces highly polluting black run-off(leachate). Waste heaps can be made convex to eliminate standing water, upslope diversion drains can prevent water inflow, downslope diversion drains can capture leachate for recirculation onto the heaps, and disused heaps can be given soil cover for vegetative healing.

3. Lack of funds is no excuse for inaction. Smaller towns in every State should go and learn from Suryapet in A.P. (population 103,000) and Namakkal in T.N. (population 53,000) which have both seen dustbin-free 'zero garbage towns' complying with the MSW Rules since 2003 with no financial input from the State or the Centre, just good management and a sense of commitment.

4. States seems to use the Rules as an excuse to milk funds from the Centre, by making that a precondition for action and inflating waste

⁴ (2004) 13 SCC 538

processing costs 2-3 fold. The Supreme Court Committee recommended 1/3 contribution each from the city, State and Centre. Before seeking 70-80% Centre's contribution, every State should first ensure that each city first spends its own share to immediately make its wastes non-polluting by simple sanitizing/stabilizing, which is always the first step in composting viz. inoculate the waste with cow dung solution or bio culture and placing it in windrows (long heaps) which are turned at least once or twice over a period of 45 to 60 days.

5. Unless each State creates a focused 'solid waste management cell' and rewards its cities for good performance, both of which Maharashtra has done, compliance with the MSW Rules seems to be an illusion.

6. The admitted position is that the MSW Rules have not been complied with even after four years. None of the functionaries have bothered or discharged their duties to ensure compliance. Even existing dumps have not been improved. Thus, deeper thought and urgent and immediate action is necessary to ensure compliance in future."

8. After transfer of proceedings to this Tribunal on 02.09.2014, the matter was taken up from time to time and several directions were issued. Finally vide order dated 22.12.2016, after noticing that the SWM Rules, 2016 had been notified on 08.04.2016 which laid down elaborate mechanism to deal with the solid waste management, the Tribunal directed as follows:

- "1. Every State and Union Territory shall enforce and implement the Solid Waste Management Rules, 2016 in all respects and without any further delay.*
- 2. The directions contained in this judgment shall apply to the entire country. All the State Governments and Union Territories shall be obliged to implement and enforce these directions without any alteration or reservation.*
- 3. All the State Governments and Union Territories shall prepare an action plan in terms of the Rules of 2016 and the directions in this judgment, within four weeks from the date of pronouncement of the judgment. The action plan would relate to the management and disposal of waste in the entire State. The steps are required to be taken in a time*

bound manner. Establishment and operationalization of the plants for processing and disposal of the waste and selection and specifications of landfill sites which have to be constructed, be prepared and maintained strictly in accordance with the Rules of 2016.

4. The period of six months specified under Rule 6(b), 18, 23 of the Rules of 2016 has already lapsed. All the stakeholders including the Central Government and respective State Governments/UTs have failed to take action in terms thereof within the stipulated period. By way of last opportunity, we direct that the period of six months shall be reckoned w.e.f. 1st January, 2017. There shall be no extension given to any stakeholders for compliance with these provisions any further.

The period of one year specified under Rule 11(f) 12(a), 15(e), 22(1) and 22(2) has lapsed. The concerned stakeholders have obviously not taken effective steps in discharging their statutory obligations under these provisions. Therefore, we direct that the said period of one year shall commence with effect from 1st July, 2017. For this also, no extension shall be provided.

Any State or Union Territory which now fails to comply with the statutory obligations as afore indicated shall be liable to be proceeded against in accordance with Section 15 of the Environment (Protection) Act, 1986. Besides that, it would also be liable to pay environmental compensation, as may be imposed by this Tribunal. In addition to this, the senior most officer in-charge in the State Government/Urban Local Body shall be liable to be personally proceeded against for violation of the Rules and orders passed by this Tribunal.

5. The Central Government, State Government, Local Authorities and citizens shall perform their respective obligations/duties as contemplated under the Rules of 2016, now, without any further delay or demur.
6. All the State Governments, its departments and local authorities shall operate in complete co-ordination and cooperation with each other and ensure that the solid waste generated in the State is managed, processed and disposed of strictly in accordance with the Rules of 2016.
7. Wherever a Waste to Energy plant is established for processing of the waste, it shall be ensured that there is mandatory and proper segregation prior to incineration relatable to the quantum of the waste.
8. It shall be mandatory to provide for a buffer zone around plants and landfill sites whether they are geographically integrated or are located separately. The buffer zone necessarily need not be of 500 meters wherever there is a land constraint. The

purpose of the buffer zone should be to segregate the plant by means of a green belt from surrounding areas so as to prevent and control pollution, besides, the site of the project should be horticulturally beautified. This should be decided by the authorities concerned and the Rules are silent with regard to extent of buffer zone. However, the Urban Development Manual provides for the same. Hence, we hold that this provision is not mandatory, but is directory.

We make it clear that buffer zone and green belt are essential and their extent would have to be decided on a case to case basis.

9. We direct that the Committees constituted under Rule-5 would meet at least once in three months and not once in a year as stipulated under the Rules of 2016. The minutes of the meeting shall be placed in the public domain. Directions, on the basis of the minutes, shall be issued immediately after the meeting, to the concerned States, local bodies, departments and Project Proponents.

10. The State Government and the local authorities shall issue directives to all concerned, making it mandatory for the power generation and cement plants within its jurisdiction to buy and use RDF as fuel in their respective plants, wherever such plant is located within a 100 km radius of the facility.

In other words, it will be obligatory on the part of the State, local authorities to create a market for consumption of RDF. It is also for the reason that, even in Waste to Energy plants, Waste-RDF-Energy is a preferred choice.

11. In Waste to Energy plant by direct incineration, absolute segregation shall be mandatory and be part of the terms and conditions of the contract.
12. The tipping fee, wherever payable to the concessionaire/operator of the facility, will not only be relatable to the quantum of waste supplied to the concessionaire/operator but also to the efficient and regular functioning of the plant. Wherever, tipping fee is related to load of the waste, proper computerised weighing machines should be connected to the online system of the concerned departments and local authorities mandatorily.
13. Wherever, the waste is to be collected by the concessionaire/operator of the facility, there it shall be obligatory for him to segregate inert and C&D waste at source/collection point and then transport it in accordance with the Rules of 2016 to the identified sites.
14. The landfill sites shall be subjected to bio-stabilisation within six months from the date of

pronouncement of the order. The windrows should be turned at regular intervals. At the landfill sites, every effort should be made to prevent leachate and generation of Methane. The stabilized waste should be subjected to composting, which should then be utilized as compost, ready for use as organic manure.

15. *Landfills should preferably be used only for depositing of inert waste and rejects. However, if the authorities are compelled to use the landfill for good and valid reasons, then the waste (other than inert) to be deposited at such landfill sites be segregated and handled in terms of Direction 13.*
16. *The deposited non-biodegradable and inert waste or such waste now brought to land fill sites should be definitely and scientifically segregated and to be used for filling up of appropriate areas and for construction of roads and embankments in all road projects all over the country. To this effect, there should be a specific stipulation in the contract awarding work to concessionaire/operator of the facility.*
17. *The State Government, Local Authorities, Pollution Control Boards of the respective States, Pollution Control Committees of the UTs and the concerned departments would ensure that they open or cause to be opened in discharge of Extended Producer Responsibility, appropriate number of centers in every colony of every district in the State which would collect or require residents of the locality to deposit the domestic hazardous waste like fluorescent tubes, bulbs, batteries, electronic items, syringe, expired medicines and such other allied items. Hazardous waste, so collected by the centers should be either sent for recycling, wherever possible and the remnant thereof should be transported to the hazardous waste disposal facility.*
18. *We direct MoEF&CC, and the State Governments to consider and pass appropriate directions in relation to ban on short life PVC and chlorinated plastics as expeditiously as possible and, in any case, not later than six months from the date of pronouncement of this judgment.*
19. *The directions and orders passed in this judgment shall not affect any existing contracts, however, we still direct that the parties to the contract relating to management or disposal of waste should, by mutual consent, bring their performance, rights and liabilities in consonance with this judgment of the Tribunal and the Rules of 2016. However, to all the concessionaire/operators of facility even under process, this judgment and the Rules of 2016 shall completely and comprehensively apply.*

20. We specifically direct that there shall be complete prohibition on open burning of waste on lands, including at landfill sites. For each such incident or default, violators including the project proponent, concessionaire, ULB, any person or body responsible for such burning, shall be liable to pay environmental compensation of Rs. 5,000/- (Rs. Five Thousand only) in case of simple burning, while Rs. 25,000/- (Rs. Twenty Five Thousand only) in case of bulk waste burning. Environmental compensation shall be recovered as arrears of land revenue by the competent authority in accordance with law.
21. All the local authorities, concessionaire, operator of the facility shall be obliged to display on their respective websites the data in relation to the functioning of the plant and its adherence to the prescribed parameters. This data shall be placed in the public domain and any person would be entitled to approach the authority, if the plant is not operating as per specified parameters.
22. We direct the CPCB and the respective State Boards to conduct survey and research by monitoring the incidents of such waste burning and to submit a report to the Tribunal as to what pollutants are emitted by such illegal and unauthorized burning of waste.
23. That the directions contained in the judgment of the Tribunal in the case of 'Kudrat Sandhu Vs. Govt. of NCT & Ors', O.A. No. 281 of 2016, shall mutatis mutandis apply to this judgment and consequently to all the stakeholders all over the country.
24. That any States/UTs, local authorities, concessionaires, facility operators, any stakeholders, generators of waste and any person who violates or fails to comply with the Rules of 2016 in the entire country and the directions contained in this judgment shall be liable for penal action in accordance with Section-15 of the Environment (Protection) Act, 1986 and shall also be liable to pay environmental compensation in terms of Sections 15 & 17 of the National Green Tribunal Act, 2010 to the extent determined by the Tribunal.
25. That the State Governments/UTs, public authorities, concessionaire/operators shall take all steps to create public awareness about the facilities available, processing of the waste, obligations of the public at large, public authorities, concessionaire and facility operators under the Rules and this judgment. They shall hold program for public awareness for that purpose at regular intervals. This program should be conducted in the local languages of the concerned States/UTs/Districts.

26. *We expect all the concerned authorities to take note of the fact that the Rules of 2016 recognize only a landfill site and not dumping site and to take appropriate actions in that behalf.*
27. *We further direct that the directions contained in this judgment and the obligations contained under the Rules of 2016 should be circulated and published in the local languages.*
28. *Every Advisory Committee in the State shall also act as a Monitoring Committee for proper implementation of these directions and the Rules of 2016.*
29. *Copy of this judgment be circulated to all the Chief Secretaries/Advisers of States/UTs by the Registry of the Tribunal. The said authorities are hereby directed to take immediate steps to comply with all the directions contained in this judgment and submit a report of compliance to the Tribunal within one month from the date they receive copy of this judgment."*

II. PREVIOUS PROCEEDINGS IN PRESENT MATTER:

9. The Tribunal in a review meeting on the administrative side with the CPCB and municipal solid waste management experts, on 23.07.2018 considered the matter in the light of annual report prepared by the CPCB in April 2018 under Rule 24 of the MSW Rules and noticed serious deficiencies. Accordingly, it was decided to take up the issue of execution of judgment dated 22.12.2016 in *Mrs. Almitra H. Patel & Anr. Vs. Union of India & Ors (supra)*, by way of interaction with all the States/UTs through video conferencing. For this purpose, meetings were held on 02.08.2018, 07.08.2018, 08.08.2018, 13.08.2018 and 20.08.2018.
10. At the conclusion of the interaction, the Tribunal declared that the mandatory provision of the Rules and directions should be implemented in a time bound manner. Following specific steps were required to be taken:
 - i. Action plans were to be submitted by all the States to CPCB latest by 31.10.2018 and executed in the outer deadline of 31.12.2019 which should be overseen by the Principal Secretaries of Urban and Rural Development Departments of the States.

- ii. The States should have Monitoring Committees headed by the Secretary, Urban Development Department with the Secretary of Environment Department as Members and CPCB and State Pollution Control Boards (SPCBs) assisting the Committees.
- iii. They should have interaction with the local bodies once in two weeks.
- iv. Local bodies are to furnish their reports to State Committees twice a month.
- v. The State Committees may take a call on technical and policy issues.
- vi. Local bodies may have suitable nodal officers. Bigger local bodies may have their own Committees headed by Senior Officers.
- vii. Public involvement may be encouraged and status of the steps taken be put in public domain.
- viii. The State Level Committees are to give their reports to the Regional Monitoring Committees on monthly basis.⁵
- ix. Instead of every local body separately floating tenders, the standardized technical specifications be involved and adopted.⁶
- x. Best practices may be adopted, including setting up of Control Rooms where citizens can upload photos of garbage which may be looked into by the specified representatives of local bodies, at local level as well as State level.
- xi. It was directed that mechanism be evolved for citizens to receive and give information.
- xii. CCTV cameras be installed at dumping sites.
- xiii. GPS be installed in garbage collection vans. This may be monitored appropriately.⁷

⁵ Para 21

⁶ Para 22

⁷ Para 23

11. Performance audit was to be conducted for 500 ULBs with population of 1 lakh and above initially, as suggested by the MoHUA as follows:

	Key Parameters/ Indicators	Description of Parameters/Indicators for physical evaluation
1	Door to Door Collection	Door to door collection of segregated solid waste from all households including slums and informal settlements, commercial, institutional and other non-residential premises. Transportation in covered vehicles to processing or disposal facilities
2	Source Segregation	Segregation of waste by households into Biodegradable, non-biodegradable, domestic hazardous.
3	Litter Bins & Waste Storage Bins	<ul style="list-style-type: none"> • Installation of Twin-bin/ segregated litter bins in commercial & public areas at every 50-100 meters. • Installation of Waste storage bins in strategic locations across the city, as per requirement (Unless Binless) • Elimination of Garbage Vulnerable Points .
4	Transfer Stations	Installation of Transfer Stations instead of secondary storage bins in cities with population above 5 lakhs.
5	Separate transportation	<ul style="list-style-type: none"> • Compartmentalization of vehicles for the collection of different fractions of waste. • Use of GPS in collection and transportation vehicles to be made mandatory at least in cities with population above 5 lakh along with the publication of route map.
6	Public Sweeping	<ul style="list-style-type: none"> • All public and commercial areas to have twice daily sweeping, including night sweeping and residential areas to have daily sweeping.
7	Waste Processing <ul style="list-style-type: none"> • Wet Waste • Dry Waste • MRF Facility 	<ul style="list-style-type: none"> • Separate space for segregation, storage, decentralised processing of solid waste to be demarcated • Establishing systems for home/decentralised and centralised composting • Setting up of MRF Facilities.
8	Scientific Landfill	<ul style="list-style-type: none"> • Setting up common or regional sanitary landfills by all local bodies for the disposal of permitted waste under the rules • Systems for the treatment of legacy waste to be established.
9	C&D Waste	Ensure separate storage, collection and transportation of construction and demolition wastes.
10	Plastic Waste	Implementation of ban on plastics below <50 microns thickness and single use plastics.
11	Bulk Waste Generators (BWGs)	Bulk waste generators to set up decentralized waste processing facilities as per SWM Rules, 2016.

12	RDF	Mandatory arrangements have to be made by cement plants to collect and use RDF, from the RDF plants, located within 200 kms.
13	Preventing solid waste from entering into water bodies	Installation of suitable mechanisms such as screen mesh, grill, nets, etc. in water bodies such as nallahs, drains, to arrest solid waste from entering into water bodies.
14	User Fees	Waste Generators paying user fee for solid waste management, as specified in the bye-laws of the local bodies.
15	Penalty provision	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 byelaws framed.
16	Notification of Bye Laws	Frame bye-laws incorporating the provisions of MSW Rules, 2016 and ensuring timely implementation.
17	Citizen Grievance Redressal	Resolution of complaints on Swachhata App within SLA.
18	Monitoring mechanism	States/ULBs to update month wise targets/action plans on the online MIS.

12. The Regional Committees were to be headed either by former High Court Judges or by Senior Retired Officers and Apex Committees by a former Supreme Court Judge.⁸ Common problems faced and suggestions were to be noted in tabular chart.⁹ The Committees were to function for a period of one year subject to further orders.¹⁰
13. The matter was again taken up on 16.01.2019 in light of reports received from some of the Committees, especially from the State of Uttar Pradesh.
14. It was noticed that timeline of two years had expired which was the period prescribed for steps 1 to 7 under Rule 22 and three years is to expire on 08.04.2019 which covers steps upto serial number 10. Since violation of Rules are statutory offences under the Environment (Protection) Act, 1986 and results in deterioration of environment, affecting the life of the citizens, it was noted that the authorities may be made accountable for their lapses and required to furnish performance

⁸ Paras 18 and 20

⁹ Para 14

¹⁰ Para 18

guarantee for compliance or pay damages as had been directed in some of the cases.¹¹

15. The Tribunal noted that solid waste management is of paramount importance for protection of environment, as the statistics paint a dismal picture of the environment in the country. The Tribunal had also referred to proceedings before it, relating to 351 polluted river stretches 102 non-attainment cities in terms of ambient air quality and 100 industrial clusters which are critically polluted as per data available with CPCB. The Tribunal had taken cognizance of such serious environmental issues and required the respective States to prepare time bound action plans and execute the same so as to restore water and air quality, as per prescribed norms.¹²

16. The Tribunal also noted that there was a need to conduct performance audit of statutory regulators so that they are manned by competent as well as credible persons and there is a regime of their accountability, as

¹¹ Para 20. Cases referred to in the said para are as follows:

- (a). All India Lokadhikar Sangathan vs. Govt of NCT Delhi & Anr, E.A No. 11/2017, Date of Order 16.10.2018;
- (b). Sobha Singh vs. State of Punjab & Ors. O.A. No. 916/2018, Date of Order 14.11.2018;
- (c). Threat to life arising out of coal mining in south Garo Hills district v. State of Meghalaya & Ors. O.A No. 110 (THC)/2012, Date of Order 04.01.2019;
- (d). Ms. Ankita Sinha vs. State of Maharashtra & Ors. O.A. No. 510/2018, Date of Order 30.10.2018,
- (e). Sudarsan Das vs. State of West Bengal & Ors. O.A. No. 173/2018, Date of Order 04.09.2018;
- (f). Court on its Own Motion vs. State of Karnataka, O.A. No. 125/2017, Date of Order 06.12.2018.

¹² Para 21. Cases referred to in the said para are as follows:

- O.A. No. 110 (THC)/2012-Threat to life arising out of coal mining in south Garo Hills district v. State of Meghalaya & Ors.
- O.A. No. 673/2018, News item published in 'The Hindu' authored by Shri Jacob Koshy Titled "More river stretches are now critically polluted: CPCB" dated 20.09.2018: wherein the Tribunal issued directions to prepare and implement Action Plans to rejuvenate and restore the 351 polluted river stretches.
- Original Application No. 681/2018, News Item Published in "The Times of India" Authored by Shri Vishwa Mohan Titled "NCAP with Multiple timelines to Clear Air in 102 Cities to be released around August 15" dated 08.10.2018: wherein the Tribunal directed Action Plans to be prepared for the 102 non-attained cities to bring the standards of air quality within the prescribed norms.
- Original Application No. 1038/2018, News item published in "The Asian Age" Authored by Sanjay Kaw Titled "CPCB to rank industrial units on pollution levels" dated 13.12.2018: wherein the Tribunal directed preparation of time bound Action Plans to ensure that all industrial clusters comply with the parameters laid down in Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- Original Application No. 606/2018, Compliance of Municipal Solid Waste Management Rules, 2016 dated 31.08.2018: wherein the Tribunal constituted Apex and Regional Monitoring Committees for effective implementation of MSW Rules, 2016.

observed by Hon'ble Supreme Court. Failure to do so would be disastrous for the health of the citizens and defeat the very purpose of regulatory regime manned to protect the environment. Accordingly it was held that the issues being interconnected, an integral approach was required in the matter for sustainable development. Coordination was required with different authorities of the State, which was not possible without involvement of the Chief Secretaries.¹³

17. The Tribunal also considered its experience of administrative interaction held on the subject on 04.12.2018 with the Committees appointed and found that the mechanism had not become as effective as expected.¹⁴
18. The Tribunal accordingly modified the mechanism of Committees. For the States, Member Secretaries of the SPCBs were made the Convener of the Committees. Secretaries of Urban Development, Local Bodies, Local Self-Government, Environment, Rural Development Health and representatives of CPCB, wherever CPCB office is existing were to be Members. The Committees were to work for six months or as may be considered necessary.¹⁵

¹³ Paras 21 to 25. Cases referred to in the said paras are as follows:

- Aryavart Foundation v. M/s Vapi Green Enviro Ltd. & Ors, O.A. No.95/2018.
- https://niti.gov.in/writereaddata/files/new_initiatives/presentation-on-CWMI.pdf- India ranks 120th in 122 countries in Water Quality Index as per Niti Ayog Report, <https://www.thehindu.com/sci-tech/energy-andenvironment/india-ranked-no-1-in-pollution-related-deaths-report/article19887858.ece>- Most pollution-linked deaths occur in India, <https://www.hindustantimes.com/india-news/delhi-world-s-most-polluted-city-mumbai-worse-than-beijing-who/story-m4JFTO63r7x4Ti8ZbHF7mM.html>- Delhi's most polluted city, Mumbai worse than Beijing as per WHO; http://www.un.org/waterforlifedecade/pdf/global_drinking_water_quality_index.pdf- WHO Water Quality Index .
- News Item published in 'The Times of India' Authored by Shri. Vishwa Mohan Titled "NCAP with Multiple Timelines to Clear Air in 102 Cities to be released around August 15" O.A. No. 681/2018- <http://www.greentribunal.gov.in/DisplayFile.aspx>
- <https://www.ndtv.com/delhi-news/delhis-air-pollution-has-caused-of-death-of-15-000-people-study-1883022>.
- Sudarsan Das vs. State of West Bengal & Ors. O.A. No. 173/2018 Order dated 04.09.2018
- Shailesh Singh vs. Hotel Holiday Regency, Moradabad & Ors. O.A. No. 176/2015, order dated 3.1.2019
- Aryavart Foundation v. M/s Vapi Green Enviro Ltd. & Ors O.A. No.95/2018, order dated 11.01.2019.

¹⁴ Para 26.

¹⁵ Para 28. Cases referred to in the said para are as follows:

- See order dated 198.9.2018 of this Tribunal in O.A No. 606/2018 to the effect that the non-official Chairperson will be paid consolidated amount equal to basic pay of the post held by the incumbent. A former Judge of Hon'ble Supreme Court will be entitled to Rs.

19. The Committees constituted under the Rules were to work in tandem with the Committees constituted by the Tribunal. The CPCB was to prepare Standard Operating Procedure (SOP) for implementation of Clause J for dealing with the legacy waste. The Collectors were to have monthly meetings, as per Rule 12 and submit reports to State Urban Development Departments, with a copy to State Level Committees.¹⁶
20. Every State was to constitute a Special Task Force (STF) in each District with four members – one each nominated by the District Magistrate, Superintendent of Police, Regional Officer of the SPCBs and the District Legal Services Authority (DLSA) for awareness by involving educational, religious and social organizations, including local Eco-clubs. This was also to apply with regard to awareness in respect of other connected issues i.e. polluted rivers, air pollution, etc. In this regard, reference was made to directions of the Hon'ble Supreme Court requiring such awareness programmes to be undertaken.¹⁷
21. The Tribunal also referred to its order dated 19.12.2018, in Original Application No. 673/2018, for laying down scale of compensation to be recovered from each State/UT in failing to carry out directions of this Tribunal on the issue of preparing action plans for river stretches.

2.50 Lakhs per month. A former Judge of the High Court will be paid Rs. 2.25 Lakhs per month. On same pattern, remuneration may be fixed for any other retired Member.

- E.A. No.32/2016 order dated 15.11.2018- Clarifying that while the State may provide the logistics and other facilities, the financial aspects may be taken care of by the State Pollution Control Boards/Committees. The financial aspects will include the remuneration or other incidental expenses which may be increased with a view to effectively execute the directions of this Tribunal. Such expenses may include secretarial assistance, travel as well as cost incurred for any technical assistance.
- Apart from remuneration, all actual expenses incurred in taking assistance for secretarial working will be reimbursed by concerned PCB as already directed vide order dated 17.12.2018 E.A. No.32/2016, Amresh Singh v. Union of India & Ors.

¹⁶ Para 32.

¹⁷ Paras 35 and 36. Cases referred to in the said paras are as follows:

- O.A. No. 138/2016 order dated 27.08.2018
- O.A.No. 673/2018, order dated 20.09.2018
- Suo Moto Application No. 290/2017, order dated 24.10.2018
- O.A. No. 200/2014 order dated 29.11.2018
- (2004)1 SCC 571
- (2005)5 SCC 733

Similar pattern was proposed in case of failing to carry out directions in the present case.¹⁸

22. The Chief Secretaries of all the States and UTs were required to appear in person and be ready on the following specific points:

- a. *Status of compliance of SWM Rule, 2016, Plastic Waste Management Rules, 2016 and Bio-Medical Waste Management Rules, 2016 in their respective areas.*
- b. *Status of functioning of Committees constituted by this order.*
- c. *Status of the Action Plan in compliance vide order dated 20.09.2018 in the News Item published in "The Hindu" authored by Shri Jacob Koshy Titled "More river stretches are now critically polluted: CPCB (Original Application No. 673/2018).*
- d. *Status of functioning of Committees constituted in News Item Published in "The Times of India" Authored by Shri Vishwa Mohan Titled "NCAP with Multiple timelines to Clear Air in 102 Cities to be released around August 15" dated 08.10.2018.*
- e. *Status of Action Plan with regard to identification of polluted industrial clusters in O.A. No. 1038/2018, News item published in "The Asian Age" Authored by Sanjay Kaw Titled "CPCB to rank industrial units on pollution levels" dated 13.12.2018.*
- f. *Status of the work in compliance of the directions passed in O.A. No. 173 of 2018, Sudarsan Das v. State of West Bengal & Ors. Order dated 04.09.2018.*
- g. *Total amount collected from erring industries on the basis of 'Polluter Pays' principle, 'Precautionary principle' and details of utilization of funds collected.*
- h. *Status of the identification and development of Model Cities and Towns in the State in the first phase which can be replicated later for other cities and towns of the State."*

¹⁸ Para 38. Cases referred to in the said para are as follows:

- Threat to life arising out of coal mining in south Garo Hills district v. State of Meghalaya & Ors O.A. No. 110(THC)/2012.
- News Item published in "The Hindu" authored by Shri Jacob Koshy Titled "More river stretches are now critically polluted: CPCB (O.A. No. 673/2018) vide order dated 19.12.2018- wherein this Tribunal held that compensation for damage to the environment will be payable by each of the States/ UTs at the rate of Rs. One Crore per month for each of the Priority- I and Priority- II stretches, Rs. 50 lacs per month for stretches in Priority- III and Rs. 25 lacs per month each for Priority- IV and Priority- V stretches.

23. It was also directed that they may not nominate other officer for appearance before this Tribunal. However, they may seek change of date, with advance intimation.¹⁹
24. Further direction was for the State to display on their respective websites the progress made on the above issues.²⁰ Under Rule 14, the CPCB was directed to coordinate with the Committees.²¹
25. Accordingly, Chief Secretaries/Advisor of Himachal Pradesh, Haryana, Punjab, Delhi, Bihar, Odisha and Chandigarh have already appeared before this Tribunal on 05.03.2019, 06.03.2019, 07.03.2019, 11.03.2019, 15.03.2019, 26.03.2019 and 26.03.2019 respectively and their reports were duly considered. Directions have been given for further course of action and they have been directed to appear in person again with status of compliance and progress after six months. This has become necessary to ensure that environment protection and restoration is given highest priority in view of serious challenge posed by deteriorated environment and large scale violations which are not satisfactorily dealt with by the administrative machinery of the Government. The Tribunal hopes and expects that continued involvement of Chief Secretaries/Advisor will result in improvement of the situation and lead to better protection of quality of air, water and environment and help public health.

III. PRESENT PROCEEDINGS:

26. In pursuance of above, Shri Malay Kumar Dey, Chief Secretary, State of West Bengal is present in person.
27. An action taken report has been furnished vide e-mail dated 01.04.2019 on behalf of the State of West Bengal indicating status of compliance of order dated 16.01.2019. The compliance report indicates some of the

¹⁹ Paras 40 and 41

²⁰ Para 42

²¹ Para 45

steps taken for solid waste management. Status of compliance of Plastic Waste Management Rules, 2016, Bio-medical Waste Management Rules, 2016, polluted river stretches, polluted industrial clusters, air polluted cities and illegal mining have also been mentioned.

28. From perusal of the compliance report and after hearing submissions of the State, we find that steps required to be taken under Rule 22 of the Solid Waste Management Rules, 2016 have not yet been completed. It is not clear whether the local bodies have submitted their annual reports to the State Pollution Control Board (SPCB) under Rule 24 and whether SPCB has submitted consolidated annual report to the Central Pollution Control Board (CPCB) under the said Rules. We have also found the steps taken for plastic waste management and bio-medical waste management to be inadequate.
29. From the compliance report furnished by the Chief Secretary, huge gap is noticed in the steps taken and the steps required to be taken in terms of the Rules and for ensuring sustainable development. Unless such steps are taken, the unsatisfactory state of environment in the country in general and in the State in particular may not improve.
30. As per one of the report in public domain, West Bengal treats only 49 per cent of the waste water before dumping it in the Ganga. The inefficiency of sewage treatment plants (STPs) in West Bengal are not effective. The State generates 1,311 million litres a day (mld) of waste water. While the 34 STPs in state have a total installed capacity of 457 mld, their actual utilisation is only 214 mld, which is only 49 per cent. Of 1,311 mld of waste water, 47 per cent is generated by Kolkata alone.²² Arsenic toxicity in groundwater affecting major parts of the Bengal Basin covering

²² <https://www.downtoearth.org.in/news/west-bengal-discharges-over-50-waste-water-untreated-into-ganga-42970>

Bangladesh and southern West Bengal.²³ It was found that out of the 341 blocks in West Bengal, ground water in 81 blocks was contaminated with arsenic and in 49 blocks with fluoride.²⁴ Some of contamination may possibly be geogenic.

31. Studies show that Bengal has the highest air pollution-related deaths among states in the mid socio-demographic index (SDI).²⁵ The ambient air quality monitoring has shown 61 per cent increase in particulate matter in just four years (2010 to 2013). The levels exceed standards by 2.7 times. NO₂ levels exceed by close to two times.²⁶
32. It is reported that large tractors, diggers and trucks can be seen lined along many of the rivers in West Bengal. Indiscriminate sand mining has devastating effect on the environment. Its impacts can reduce river water flow.²⁷ Illegal lifting of sand from Subarnarekha river bed near Jaleswar town has emerged as a major cause of concern for the locals. Sand mafia from West Bengal are engaged in lifting sand from the river bed even as the local administration remains a mute spectator.²⁸
33. About 90 per cent of the municipal solid waste generated in Bengal every day is dumped in the open in violation of statutory pollution laws, raising the stink of alleged collusion with recycling rackets that have found a fortune in rubbish. West Bengal Pollution Control Board's Annual Report 2016-17 states that of the 14,000 tonnes of waste that needs to be

²³ <https://crimsonpublishers.com/aaoa/pdf/AAOA.000550.pdf>

²⁴ <https://www.thehindu.com/news/cities/kolkata/water-in-38-per-cent-blocks-in-west-bengal-contaminated/article6920814.ece>

²⁵ http://timesofindia.indiatimes.com/articleshow/67950344.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

²⁶ <https://www.cseindia.org/kolkata-residents-breathe-in-air-which-has-3-5-times-higher-pollution-levels-than-the-ambient-level-that-is-already-several-times-higher-than-the-permissible-limit-action-must-gather-momentum-says-cses-kolkata-study-6250>

²⁷ <https://thewire.in/environment/sand-mining-reforms-west-bengal>

²⁸ <http://www.newindianexpress.com/states/odisha/2018/nov/20/collector-orders-to-check-illegal-sand-mining-1900653.html>

disposed of daily, 830 tonnes are composted. Scientifically designed landfills like the one in Kamarhati take in 515 tonnes of residual waste.

34. These facts have been brought to the notice of the Chief Secretary so that the same can be verified and necessary action considered.
35. On behalf of CPCB, following data has been furnished in respect of State of West Bengal. The same is reportedly based on report furnished by the PPCB under Rule 24(3) of the SMW Rules or other corresponding provisions:-

S. No.	RULES	DATA
1.	Solid Waste Management	<ul style="list-style-type: none"> No. of Local Bodies :125 Waste generation :14000 TDP Collection :11900 Treated :830 Legacy Dumpsites :98
2.	Plastic waste management	<ul style="list-style-type: none"> Waste generation : Not provided No. of registered recycling units : 71
3.	Biomedical waste management	<ul style="list-style-type: none"> No of Hospitals : 6405 Authorization granted: 5676 Waste generation : 29773.84
4.	No. of CBWTF	<ul style="list-style-type: none"> 6(operational) 2(under construction)
5.	Polluted river stretches	<p>P-I: 1 Haroa Bridge to Malancha Burning Ghat</p> <p>P-II: 1 Siliguri to Binaguri (Action Plan endorsed by CPCB)</p> <p>P-III: 3 Santipur town to Majhdia Tarapith to Sadhak Bamdeb Ghat Tribeni to diamond Harbour</p> <p>PIV: 4 Durgachakm to Dishergarh Laal Dighi to Krishna Nagar Midnapore to Ramgarh Madhupur to Gobindapur</p> <p>PV : 8 Kulti to Asansol Bitala to Alipurdwar Jalpaiguri to Thakurer Kamat Suri to Durgapur Kolaghat to Benapur Ghatal to Nischind pur Siliguri to Nishchind pur Siliguri to Paharpur Total : 17</p>
6.	Air Quality Management	Non-attainment Cities : Kolkata (Action Plan prepared and endorsed by

		CPCB)
7.	Industrially polluted clusters	Clusters : Howrah, Haldia, Assansole (Action plan are to be prepared by CEPI)
8.	ETPs, CETPs and STPs	ETPs No. of industries which require ETP : 33 No. of industries having functional ETP: 33 No. of industries complying : 29 No. of industries non-complying : 4 CETPs No. of CETPs : 1 No. of CETPs complying : 1 No. of under construction/proposed CETPs : 1 STPs No. of STPs : 44 No. of STPs complying : 0 No. of STPs non-complying: 44 No. of under construction/proposed STPs : 4

36. Some of the serious challenges to the protection of environment in the State of West Bengal have been considered by this Tribunal in its orders.²⁹

37. Needless to say that improvement in this respect is not only inalienable duty of the State, but is also necessary for sustainable development which is essential for the health and well-being of citizens as well as for intergenerational equity. These principles require that all human activities should be conducted in such a way that the rights of future generations to access clean air and potable water are not taken away. At

²⁹(a). Orders dated 04.09.2018 and 10.01.2018 in Sudarsan Das vs. State of West Bengal, O.A. No. 173/2018.
 (b). Order dated 19.12.2018 in News Item published in "The Hindu" authored by Shri Jacob Koshy Titled "More river stretches are now critically polluted: CPCB, O.A. No. 673/2018.
 (c). Order dated 27.11.2018, Subhas Datta vs. State of West Bengal & Ors., O.A. No. 33/2014(EZ)
 (d). Order dated 20.11.2018 in Tribunal on its own Motion vs. Union of India, O.A. No.471/2018 (Earlier O.A. No. 15/2014)
 (e). Order dated 22.01.2019 in Ambarnath Sengupta vs. State of West Bengal & Ors., O.A. No. 24/2018 (EZ)
 (f). Order dated 18.09.2018, Suman Sen vs. The West Bengal Pollution Control Board & Ors., O.A. No. 341/2018
 (g). Order dated 08.10.2018 in News Item Published in "The Times of India" Authored by Shri Vishwa Mohan Titled "NCAP with Multiple timelines to Clear Air in 102 Cities to be released around August 15", O.A. No. 681/2018.
 (h). Order dated 13.12.2018 in News item published in "The Asian Age" Authored by Sanjay Kaw Titled "CPCB to rank industrial units on pollution levels", O.A. No. 1038/2018.

the cost of repetition, it may be mentioned that water is being polluted because of discharge of untreated sewage and effluents. Air pollution is result of failure to manage solid waste and to prevent other causes leading to air pollution. There are also other issues like deterioration in groundwater level, damage to forests and wild life, unscientific and uncontrolled sand mining etc. Unsatisfactory implementation of law is clear from the fact that in spite of severe damage, there is no report of any convictions being recorded against the polluters, nor adequate compensation has been recovered for damage caused to the environment. Steps for community involvement are not adequate. There is reluctance even to declare some major cities as fully compliant with the environment norms. The authorities have not been able to evolve simplified and standard procedure for preparing project reports and giving of contracts. There is no satisfactory plan for reuse of the treated water or use of treated sewage or waste and for segregation and collection of solid waste, for managing the legacy waste or other wastes, etc.

38. The presence of Chief Secretary before this Tribunal was directed with an expectation that there will be realization of seriousness at the highest level which may percolate in the administration. This may require effective institutional monitoring mechanism and training of all the authorities charged with the duty of overseeing protection of environment and effective schemes for community involvement at every level.

IV. DIRECTIONS:

39. In view of above, after discussion with the Chief Secretary, following further directions are issued:
 - i. Steps for compliance of Rules 22 and 24 of SWM Rules be now taken within six weeks to the extent not yet taken. Similar

steps be taken with regard to Bio-Medical Waste Management Rules and Plastic Waste Management Rules.

- ii. Atleast three major cities and as many major towns as possible in the State and atleast three Panchayats in every District may be notified on the website within two weeks from today as model cities/towns/villages which will be made fully compliant within next six months.
- iii. The remaining cities, towns and Village Panchayats of the State may be made fully compliant in respect of environmental norms within one year.
- iv. A quarterly report be furnished by the Chief Secretary, every three months. First such report shall be furnished by July 10, 2019.
- v. The Chief Secretary may personally monitor the progress, atleast once in a month, with all the District Magistrates.
- vi. The District Magistrates or other Officers may be imparted requisite training.
- vii. The District Magistrates may monitor the status of compliance of environmental norms, atleast once in two weeks.
- viii. Performance audit of functioning of all regulatory bodies may be got conducted and remedial measures be taken, within six months.
- ix. The Chief Secretary may remain present in person before the Tribunal with the status of compliance in respect of various issues mentioned in para 20 as well as any other issues discussed in the above order on 11.10.2019.

40. It is made clear that Chief Secretary may not delegate the above function and the requirement of appearance before this Tribunal to anyone else.

However, it will be open to him to change the date, by advance intimation by e-mail at ngt.filing@gmail.com to adjust their convenience.

41. The issue of recovery of damages from the States for their failure to comply with the environmental norms, including the statutory rules and orders of this Tribunal, will be considered will be considered later. The Tribunal may also consider the requirement of performance guarantee of a particular amount in case progress achieved is not found to be satisfactory.
42. Accordingly, vide order dated 05.03.2019 in the present matter (dealing with State of Himachal Pradesh) it has been directed that the Apex Committee is to conclude its proceedings by 30.04.2019 and furnish its final report. Thereafter, monitoring at apex level can be done by MoEF&CC and CPCB in terms of Rules 5 and 14 of the SWM Rules respectively and direction of this Tribunal vide order dated 22.12.2016 [Para 43(9)].
43. Any other Committee or regulatory body will work in tandem with the above mechanism.

Put up the report which may be received on 15.07.2019.

Adarsh Kumar Goel, CP

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

April 2, 2019
Original Application No. 606/2018