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BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL  
EASTERN ZONE BENCH, KOLKATA  
IN  
OA No. 207/2025/EZ

IN THE MATTER OF  
Jana Kalyan Samiti

.... APPLICANTS

VERSUS

Bhubaneswar Municipal Corporation & Others

.... RESPONDENTS

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*Mrinal Kanti Biswas*  
**Mrinal Kanti Biswas**

Regional Director & Scientist E,  
CPCB, Kolkata  
Filed through

*Adhishan*  
Counsel

Dated: 27<sup>th</sup> Feb. 2026

Place: Kolkata

27 FEB 2026



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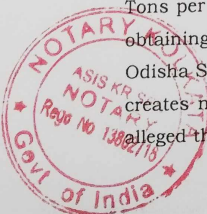
**VERSUS**

**Bhubaneswar Municipal Corporation & Others**

**.... RESPONDENTS**

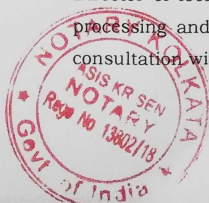
**REPLY ON BEHALF OF RESPONDENT NO. 09 i.e. CENTRAL POLLUTION  
CONTROL BOARD**

1. That, the Hon'ble National Green Tribunal, Eastern Zone Bench (hereinafter referred to as "Hon'ble NGT (EZ)" vide order dated 17.12.2025 in Original Application (hereinafter referred to as "OA") No. 207 of 2025 (EZ) has issued notice to Central Pollution Control Board (hereinafter referred to as "CPCB") as Respondent No. 9 in the instant matter and directed for filing the response. Thereby, the reply is made in this instant OA in succeeding paragraphs.
2. That, it is humbly submitted that the answering Respondent No. 9 deny all claims, contentions, allegations and averments against answering respondent CPCB in the above OA contrary to anything stated or submitted in this reply. Nothing in the OA may be deemed to have been accepted or admitted by the answering Respondent for want of a specific denial or on the ground of non-traverse, save and any averment which has been expressly admitted hereinafter.
3. That, the issue raised in the OA pertains to setting up and operation of Micro-Composting Plant located within B1-Bharatpur, GA Colony, Bhubaneswar by Bhubaneswar Municipal Corporation (BMC). It is alleged, that the setting up of the Micro Compositing Centre (MCC) is in contrary to siting criteria prescribed for solid waste processing facilities. Though, the MCC is having a processing capacity of more than 10 Metric Tons per day, but the MCC was installed and is being operated without obtaining Consent to Establish (CTE) / Consent to Operate (CTO) from Odisha State Pollution Control Board (OSPCB). The operation of the MCC creates nuisance and health hazard to the local residents. It is further alleged that the MCC has been set up on a forest land for which no forest



clearance has been obtained by BMC for carrying out non forestry activities.

4. That, CPCB is a statutory Board constituted under Section 3 of the Water (Prevention and Control of Pollution) Act, 1974. It performs the functions under the Water (Prevention and Control of Pollution) Act, 1974, The Air (Prevention and Control of Pollution) Act, 1981 and The Environment (Protection) Act, 1986.
5. That, it is humbly submitted that Ministry of Environment, Forest and Climate Change (MoEF&CC) in exercise of the powers conferred under the Environment (Protection) Act, 1986 has notified the Solid Waste Management Rules, 2016 (hereinafter referred to as "SWM Rules, 2016") vide Gazette Notification dated 08.04.2016. The said Rules provide a comprehensive regulatory framework for the generation, segregation, collection, storage, transportation, processing and disposal of solid waste. The SWM Rules, 2016 delineate the duties and responsibilities of various stakeholders including the CPCB, State Pollution Control Boards (SPCBs), Urban Local bodies (ULBs), State Governments and other agencies involved in the management of solid waste. These obligations are aimed at ensuring environmentally sound and legally compliant mechanisms for solid waste management. A copy of the Solid Waste Management Rules, 2016 is attached as **Annexure-I**
6. That, Rule 2 (52) of the SWM rules, 2016, stipulates that the 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.
7. That, Rule 3 (7) of the SWM Rules, 2016, stipulates that the **Buffer zone means zone of No development zone to be maintained around solid waste processing and disposal facility, exceeding 5 tonnes per day (TPD) of installed capacity. This will be maintained within the total area allotted for the solid waste processing and disposal facility.**
8. That, Rule 11(1) (l) of the SWM Rule, 2016 stipulates that Secretary-in Charge, Urban Development Department in the State or Union Territory through the Commissioner or Director of Municipal administration or Director of local bodies shall notify the buffer zone for the solid waste processing and disposal facilities of more than five tonnes per day in consultation with the State Pollution Control Board.



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9. That, CPCB has prepared "Guidelines on Provision of Buffer zone around Waste Processing and Disposal Facilities" (as amended in 2019) to specify adequate separation distances between solid waste management facilities and its surrounding area having different land usage characteristics. The guidelines aim to (i) minimize the risk of adverse impacts on the environment (land, air, water, noise pollution) and the impacts on the public health; (ii) inform the support strategic land use planning decision and prevent encroachment of controlled areas; (iii) generate / develop public acceptance for solid waste treatment and disposal infrastructure and (iv) encourage new technological innovations for processing facilities with minimal land requirement. A copy of the guidelines is attached as **Annexure-II**

Further, the guidelines states under section (i) "Separation distances for solid waste processing and disposal facilities" that ideally, a distance of 500 meter from the boundary of the solid waste processing and disposal facility (sanitary landfill) should be maintained. **However, on case to case basis a distance of minimum 200 meter from solid waste processing and disposal facility (sanitary landfill) can be considered subject to the condition that such facility meets the stipulated standards prescribed by SPCB** with respect to ambient air as well as for stack emissions.

The above provisions have been made keeping in view of high population density in urban areas, scarcity of land to set up such facilities and protest from local inhabitants in the area of processing disposal facility and is in line with those being adopted at international level. Besides, the following three conditions need to be ensured:

- a. the buffer area provides adequate space for vehicle entry, exit, turning, access to all areas of the site and parking;
- b. the buffer area provides adequate space on the surface of the site for all anticipated structures, equipment and activities; and
- c. the buffer area coupled with technological interventions is sufficient to ensure that potential effects of the processing/ landfilling operation do not have any unacceptable impact outside the site.

Further, the guidelines recommended the green belt width of minimum 10 meters within and all around processing facility and disposal facilities.



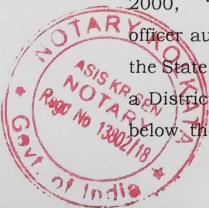


10. That, Schedule II of the SWM Rules, 2016, stipulates the “**Standards of processing and treatment of solid waste**”. In order to prevent pollution from compost plant, the following shall be complied, which include:

- 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;
- Necessary precaution shall be taken to minimise odour, flies, rodents, bird menace & fire hazard.
- 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.
- Ambient air quality shall be regularly carried out. Odour nuisance at downwind direction on the boundary of processing plant shall also be checked regularly.
- The disposal of treated leachate to meet the standards as prescribed depending upon the mode of disposal into inland surface water or public sewer or land disposal.

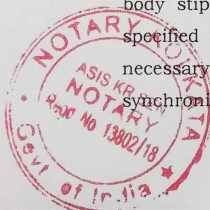
11. That, in context of noise pollution due to various activities in Micro Compositing Centre (hereinafter referred to as "MCC plant complex, it is humbly submitted that the Noise Pollution (Regulation and Control) Rules, 2000 (hereinafter referred to as 'Noise Rules, 2000') had been notified by the Ministry of Environment, Forests and Climate Change (hereinafter referred to as 'MoEFCC'), Government of India, on February 14, 2000 and the said rules prescribe ambient air quality standards in respect of noise for various areas/zones, responsibilities for enforcement of noise control measures; restrictions on the use of loud speakers/public address system, instruments, horns, sound-emitting construction equipments and bursting of firecrackers. Copy of the Noise Pollution (Regulation and Control) Rules, 2000 is enclosed as **Annexure-III**

- i. As per Rule 2(c) of Noise Pollution (Regulation and Control) Rules, 2000, “authority” means and includes any authority or officer authorized by the Central Government, or as the case may be, the State Government in accordance with the laws in force and includes a District Magistrate, Police Commissioner, or any other officer not below the rank of the Deputy Superintendent of Police designated



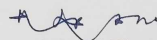
for the maintenance of the ambient air quality standards in respect of noise under any law for the time being in force. A copy of the list of authorities in Odisha, as authorized by the Government of Odisha and provided by the OSPCB is also available on CPCB website at following web link :<https://cpcb.nic.in/displaypdf.php?id=Tm9pc2UtU3RhbmRhcml0eUxpc3QucGRm>

- ii. As per Rule 3(2) of Noise Pollution (Regulation and Control) Rules, 2000, the State Government shall categorize the areas into industrial, commercial, residential or silence areas/zones for the purpose of implementation of noise standards for different areas.
  - iii. As per the Rules 3(3) of the Noise Pollution (Regulation and Control) Rules, 2000, the State Government shall take measures for abatement of noise including noise emanating from vehicular movements, (blowing of horns, bursting of sound emitting fire crackers, use of loud speakers or public address system and sound producing instruments) and ensure that the existing noise levels do not exceed the ambient air quality standards specified under these rules.
  - iv. As per Rules 3 (4) of Noise Pollution (Regulation and Control) Rules, 2000, all development authorities, local bodies and other concerned authorities while planning developmental activity or carrying out functions relating to town and country planning shall take into consideration all aspects of noise pollution as a parameter or quality of life to avoid noise menace and to achieve the objective of maintaining the ambient air quality standards in respect of noise.
12. That, the Rule 15 (y) of the SWM Rules, 2016, stipulates that the local authorities and village panchayat of census towns and urban agglomerations, 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 SPCB or the PCC, as the case may be.
  13. That, the Rule 16 (e) of the SWM Rules, 2016, stipulates that SPCB /PCC, 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. Further, as per Rule 16 (f), the authorisation shall be synchronised with the validity of the consents granted under the Water



(Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981.

14. That, the allegation in the OA states that the BMC has established and is operating two micro composting centres within B1-Bhartpur, GA Colony, Bhubaneswar, each having a capacity of 5 TPD (together amounting to 10 TPD), without obtaining valid consent and authorization from the Odisha State Pollution Control Board and without minimum buffer zone of 200 meters. It is further alleged that the BMC has utilized a portion of the land originally allocated for the establishment of a Sewage Treatment Plant to construct the MCCs, which is classified as forest *kissam* land, and no forest clearance has been obtained for the same. These allegation need to be verified by Odisha State Pollution Control Board (OSPCB) and other concerned authority.
15. That, it is humbly submitted that, response from the Odisha State Pollution Control Board, the Bhubaneswar Municipal Corporation, and Other respondents may be essential for adjudication of the matter, since the implementation of the provisions of the SWM Rules, 2016, including infrastructure development for collection, storage, segregation, transportation, processing and disposal of municipal solid wastes and its operation, is a collectively mandated under the SWM Rules, 2016.
16. The Answering Respondent craves leave of this Hon'ble NGT (EZ) to file an additional reply, if required, in the future.
17. That, in light of the above submission, it is respectfully submitted that this Answering Respondent i.e. CPCB, shall abide by all order(s) or direction(s) passed by this Hon'ble NGT (EZ) in the instant OA and render justice.



**Mrinal Kanti Biswas**

Regional Director & Scientist E,  
CPCB, Kolkata





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JCN/AL/NO.

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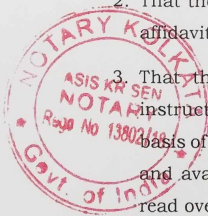
Bhubaneswar Municipal Corporation & Others

.... RESPONDENTS

**AFFIDAVIT**

I, Mrinal Kanti Biswas, Son of Saroj Kumar Biswas aged about 44 years, having office at the Regional Directorate, Central Pollution Control Board, Southend Conclave' Block No.502, 5th& 6th Floor,1582, Rajdanga Main Road, Kolkata-700107, do hereby solemnly affirm and sincerely state as follows: -

1. That the deponent is authorized representative to represent the Respondent CPCB in the present case, and as such, I am well conversant with the facts and circumstances of the present case on the basis of the information derived from the official records, and hence, I am competent and authorized to verify, sign and swear this affidavit on behalf of the Respondent CPCB.
2. That the accompanying reply may be read part and parcel of the present affidavit as I am competent to swear this affidavit.
3. That the accompanying reply has been drafted and filed under my instructions and authority the contents thereof are true and correct on the basis of the record maintained during ordinary course of business of CPCB and available records and documents and the contents of the same are read over and explained to me and are not repeated herein for the sake of brevity.



Identified by me

*Advocate*

Advocate

*Mrinal Kanti Biswas*

DEPONENT

Solemnly affirmed and declared before me on Identification

*Shri Mr. Sen*

ASIS KUMAR SEN  
City Civil Court  
Kolkata  
Reg. No.-13802 / 1F

27 FEB 2026

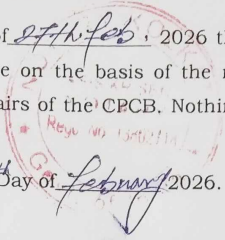


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VERIFICATION

Verified at Kolkata on this day of 27th Feb, 2026 that the contents of the above reply are correct and true on the basis of the record of the cases as mentioned in the day-to-day affairs of the CPCB. Nothing has been concealed therefrom or mis-stated.

Verified at Kolkata on this the 27th Day of February 2026.



Identified by me

*[Handwritten signature]*

Advocate

*[Handwritten signature]*

DEPONENT





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-एचएएसएमडी]

विश्वनाथ सिन्हा, संयुक्त सचिव

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE  
NOTIFICATION

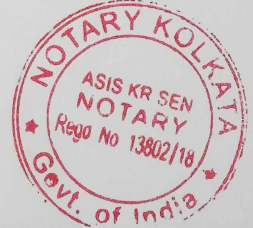
New Delhi, the 8th April, 2016

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 3<sup>rd</sup> 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 3<sup>rd</sup> 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:-





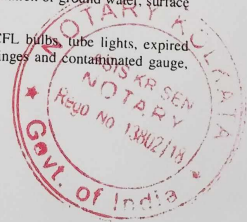
1. **Short title and commencement.-**

- (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.

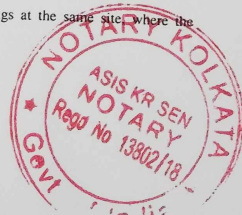
3. **Definitions**—(1) In these rules, unless the context otherwise requires,— (1) **“aerobic composting”** means a controlled process involving microbial decomposition of organic matter in the presence of oxygen;

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;



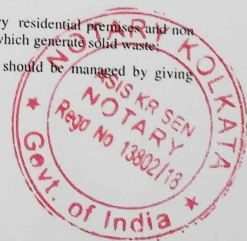


18. **"door to door collection"** means collection of solid waste from the door step of households, shops, commercial establishments, offices, institutional or any other non residential premises and includes collection of such waste from entry gate or a designated location on the ground floor in a housing 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, cardboard, 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 hawkker, 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.

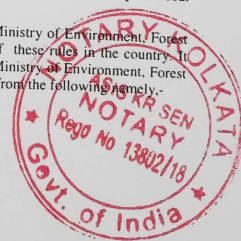
(5) Every street vendor shall keep suitable containers for storage of waste generated during the course of his activity such as food waste, disposable plates, cups, cans, wrappers, coconut shells, leftover food, vegetables, fruits, etc., and shall deposit such waste at waste storage depot or container 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 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.

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.

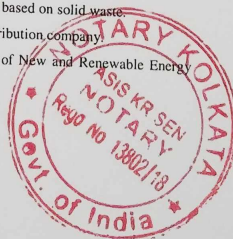
**8. Duties of Ministry of Agriculture, Government of India.**- The Ministry of Agriculture through appropriate mechanisms shall,-

- (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 vis-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,-

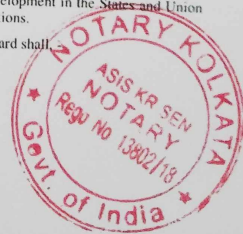
- (a) prepare a state policy and solid waste management strategy for the state or the union territory in consultation with stakeholders including representative of waste pickers, self help group and similar groups working in the field of waste management consistent with these rules, national policy on 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, -

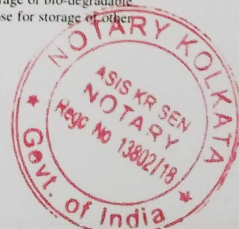
- (a) facilitate identification and allocation of suitable land as per clause (f) of rules 11 for setting up solid waste processing and disposal facilities to local authorities in his district in close coordination with the Secretary-in-charge of State Urban Development Department within one year from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

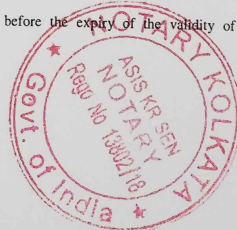


- (a) co-ordinate with the State Pollution Control Boards and the Pollution Control Committees for implementation of these rules and adherence to the prescribed standards by local authorities;
- (b) formulate the standards for ground water, ambient air, noise pollution, leachate in respect of all solid 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 canes, 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;

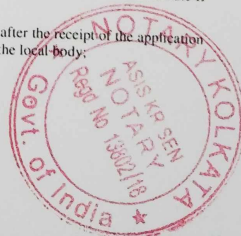




- (za) prepare and submit annual report in Form IV on or before the 30<sup>th</sup> April of the succeeding year to the Commissioner or Director, Municipal Administration or designated Officer;
- (zb) the annual report shall then be sent to the Secretary -in-Charge of the State Urban Development Department or village panchayat or rural development department and to the respective State Pollution Control Board or Pollution Control Committee by the 31<sup>st</sup> 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.

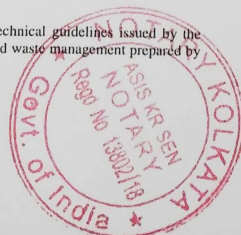
**16. Duties of State Pollution Control Board or Pollution Control Committee.**- (1) The State Pollution Control Board or Pollution Control Committee shall,-

- (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 30<sup>th</sup> April to the State Pollution Control Board or Pollution 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:

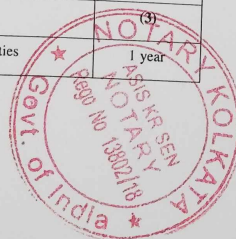
- (a) Construction of landfill on the hill shall be avoided. A transfer station at a suitable enclosed location shall be setup to collect residual waste from the processing facility and inert waste. A suitable land shall be identified in the plain areas down the hill within 25 kilometers for setting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

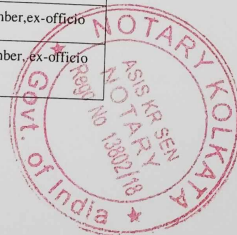




2.	Identification of suitable sites for setting up common regional sanitary landfill facilities for suitable clusters of local authorities under 0.5 million population and for setting up common regional sanitary landfill facilities or stand alone sanitary landfill facilities by all local authorities 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.

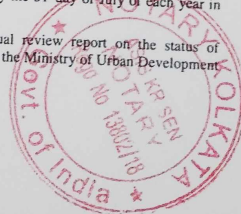
(3) The copies of the review report shall be forwarded to the State Pollution Control Board or Pollution Control Committee for necessary action.

**24. Annual report.**- (1) The operator of facility shall submit the annual report to the local body in Form-III on or before the 30<sup>th</sup> 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 30<sup>th</sup> 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 31<sup>st</sup> 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 31<sup>st</sup> 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.

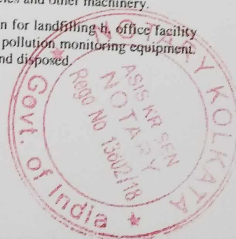
**25. Accident reporting-** In case of an accident at any solid waste processing or treatment or disposal facility or landfill site, the Officer-in-charge of the facility shall report to the local body in Form-VI and the local body shall review and issue instructions if any, to the in-charge of the facility.

#### SCHEDULE I

[see rule 15 (w),(z), 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, 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.-**

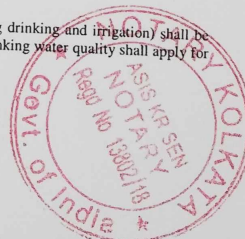
- (i) Waste for land filling shall be compacted in thin layers using heavy compactors to achieve high density of the waste. In high rainfall areas where heavy compactors cannot be used, alternative measures shall be adopted.
- (ii) Till the time waste processing facilities for composting or recycling 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  $1 \times 10^{-7}$  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  $1 \times 10^{-7}$  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 :-

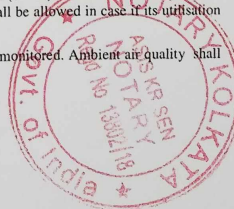




S. No.	Parameters	IS 10500:2012, Edition 2.2(2003-09) Desirable limit (mg/l except for pH)
(1)	(2)	(3)
	Arsenic	0.01
	Cadmium	0.01
	Chromium(as Cr <sup>6+</sup> )	0.05
	Copper	0.05
	Cyanide	0.05
	Lead	0.05
	Mercury	0.001
	Nickel	-
	Nitrate as NO <sub>3</sub>	45.0
	pH	6.5-8.5
	Iron	0.3
	Total hardness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

(F) **Criteria for ambient air quality monitoring.-**

- (i) 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.
- (ii) The concentration of methane gas generated at landfill site shall not exceed 25 per cent of the lower explosive limit (LEL).
- (iii) 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.
- (iv) 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.

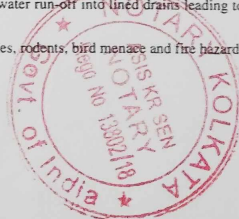
#### SCHEDULE II

[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 ( $\text{g}/\text{cm}^3$ )	<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 <sub>2</sub> O <sub>5</sub> ) percent by weight, minimum	0.4	10.4
Total Potassium (as K <sub>2</sub> 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 <sup>th</sup> 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	-



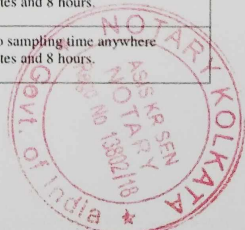


12	Total Chromium (as Cr), mg/l, max.	2.0	2.0	-
13	Copper (as Cu), mg/l, max.	3.0	3.0	-
14	Zinc (as Zn), mg/l, max.	5.0	15	-
15	Nickel (as Ni), mg/l, max.	3.0	3.0	-
16	Cyanide (as CN), mg/l, max.	0.2	2.0	0.2
17	Chloride (as Cl), mg/l, max.	1000	1000	600
18	Fluoride (as F), mg/l, max.	2.0	1.5	-
19	Phenolic compounds (as C <sub>6</sub> H <sub>5</sub> 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 <sup>3</sup>	Standard refers to half hourly average value	
HCl	50 mg/Nm <sup>3</sup>	Standard refers to half hourly average value	
SO <sub>2</sub>	200 mg/Nm <sup>3</sup>	Standard refers to half hourly average value	
CO	100 mg/Nm <sup>3</sup>	Standard refers to half hourly average value	
	50 mg/Nm <sup>3</sup>	Standard refers to daily average value	
Total Organic Carbon	20 mg/Nm <sup>3</sup>	Standard refers to half hourly average value	
HF	4 mg/Nm <sup>3</sup>	Standard refers to half hourly average value	
NO <sub>x</sub> (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	400 mg/Nm <sup>3</sup>	Standard refers to half hourly average value	
Total dioxins and furans	0.1 ng TEQ/Nm <sup>3</sup>	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 <sup>3</sup>	Standard refers to sampling time anywhere between 30 minutes and 8 hours.	
Hg and its compounds	0.05 mg/Nm <sup>3</sup>	Standard refers to sampling time anywhere between 30 minutes and 8 hours.	





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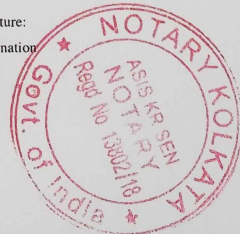
3.	Nodal Officer & designation(Officer authorised by the local body or agency responsible for operation of processing/ treatment or disposal facility)	
4.	Authorisation required for setting up and operation of the facility (Please tick mark)	waste processing recycling treatment disposal at landfill
5.	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.	<b>Processing/recycling/treatment of solid waste</b> (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.	<b>Disposal of solid waste</b> 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) (e) ]

**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:	



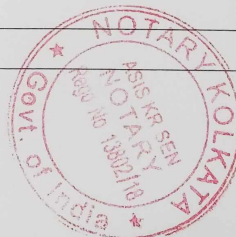


7	Number of households in the city/town , Number of non-residential premises in the city Number of election/ administrative wards in the city/town	
8	Quantity of Solid waste	
	Estimated Quantity of solid waste generated in the local body area per day in metric tones	/tpd
	Quantity of solid waste collected 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 % % % %
	Door to Door Collection of solid waste	
	Whether door to door collection (D2D) of solid waste is being done in the city/town if yes	Yes/No
	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	



~~X~~

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	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">frequency</td> <td style="width: 15%;">Daily</td> <td style="width: 15%;">Alternate days</td> <td style="width: 15%;">Twice a week</td> <td style="width: 15%;">Occasionally</td> </tr> <tr> <td style="text-align: center;">% of population covered</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	frequency	Daily	Alternate days	Twice a week	Occasionally	% 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 Whether each sanitation worker is given handcart/tricycle for collection of waste Whether handcart / tricycle is containerized Whether the collection tool synchronizes with collection/ waste storage containers utilized	% % Yes/No Yes/No Yes/No Yes/No										
Secondary Waste Storage facilities											
No. and type of waste storage depots in the city/town Open waste storage sites Masonry bins Cement concrete cylinder bins Dhalaao/covered rooms/space Covered metal/plastic containers Upto 1.1 m <sup>3</sup> bins 2 to 5 m <sup>3</sup> bins Above 5m <sup>3</sup> containers Bin-less city	No.      Capacity in m <sup>3</sup>										
Bin/ population ratio											



~~34~~

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
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
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	



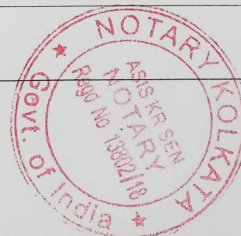


Composting .	Qty. raw material processed Qty. final product produced Qty. sold Qty. of residual waste landfilled
vermi composting	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled
Bio-methanation	Qty. raw material processed Qty. final product produced 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:

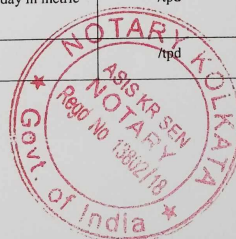
**Form - IV**

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

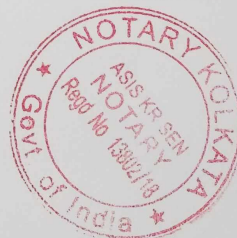
Format for annual report on solid waste management to be submitted by the local body

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

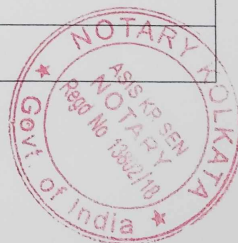


	Per capita waste collected per day	/gm/day
	Quantity of solid waste processed	/tpd
	Quantity of solid waste disposed at dumpsite/ landfill	/tpd
8	Status of Solid Waste Management service	
	Segregation and storage of waste at source Whether SOLID WASTE is stored at source in domestic/commercial/ institutional bins, If yes,	Yes/No
	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,	Yes/No
	Percentage of premises segregating the waste at source	%
	Door to Door Collection of solid waste	
	Whether door to door collection (D2D) of solid waste is being done in the city/town	Yes/No
	if yes	
	Number of wards covered in D2D collection of waste	
	No. of households covered	
	No. of non-residential premises including commercial establishments ,hotels, restaurants educational institutions/ offices etc covered	
	Percentage of residential and non-residential premises covered in door to door collection through :	
	Motorized vehicle	%
	Containerized tricycle/handcart	%
	Other device	%
	If not, method of primary collection adopted	
	Sweeping of streets	
	Length of roads, streets, lanes, 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 <sup>3</sup>					
Open waste storage sites						
Masonry bins						
Cement concrete cylinder bins						
Dhalao/covered rooms/space						
Covered metal/plastic containers						
Upto 1.1 m <sup>3</sup> bins						
2 to 5 m <sup>3</sup> bins						
Above 5m <sup>3</sup> containers						
Bin-less city						
Bin/ population ratio						
Ward wise details of waste storage depots (attach):						
Ward No:						
Area:						
Population:						
No. of bins placed						
Total volume of bins placed						
Total storage capacity of waste storage facilities in cubic meters						
Total waste actually stored at the waste storage depots daily						

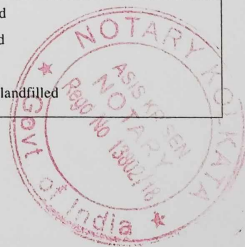




Give frequency of collection of waste from the depots Number of bins cleared	Frequency	No. of bins
	Daily	
	Alternate day	
	Twice a week	
	Once a week	
	Occasionally	
Whether storage depots have facility for storage of segregated waste in green, blue and black bins	Yes/ No (if yes, add details) No. of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

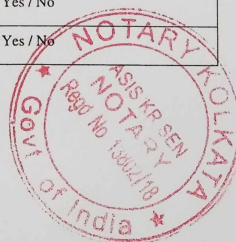


Frequency of transportation of waste	Frequency (%) of waste transported Daily Alternate day Twice a week Once a week Occasionally
Quantity of waste transported each day	/tpd
Percentage of total waste transported daily	%
Waste Treatment Technologies used	
Whether solid waste is processed	Yes/No
If yes, 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



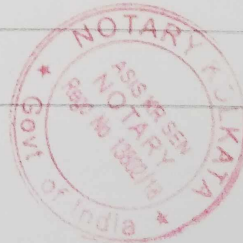


Refuse Derived Fuel	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled
Waste to Energy technology such as incineration, gasification, pyrolysis or any other technology ( give detail)	Qty. raw material processed Qty. final product produced Qty. sold 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, Compactors 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 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 &amp; 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/Pelletization





**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**

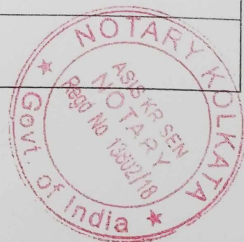
Total number of municipalities:  
 Number of Action Plan submitted:

**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	:	

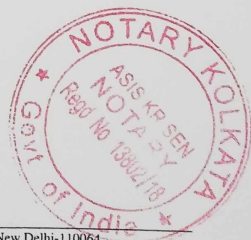




4.	Assessment of the effects of the accidents on human health and the environment	:	
5.	Emergency measures taken	:	
6.	Steps taken to alleviate the effects of accidents	:	
7.	Steps taken to prevent the recurrence of such an accident	:	
Date: .....		Signature:.....	
Place: .....		Designation: .....	

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

BISHWANATH SINHA, Jt. Secy.





Central Pollution Control Board  
UPC-II

Date: 15-04-2019

OFFICE MEMORANDUM

**SUBJECT:** - "Clarification on Buffer Zone Guidelines" issued by CPCB.

CPCB issued guidelines on Buffer Zone around waste processing and disposal facilities in April, 2017.

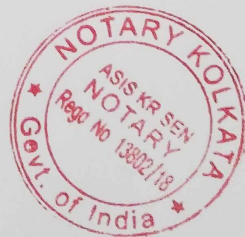
Subsequently, Central Monitoring Committee constituted under Solid Waste Management Rules, 2016 suggested MOEF & CC to revisit the buffer zone in respect of distance. The Central Pollution Control Board in its 182<sup>nd</sup> meeting agreed for revisiting of Guidelines.

It is decided that following changes have been made as mentioned at page no.13 of aforesaid Guidelines;

1. Land of 200-500 m from the boundary of the processing unit is excluded for setting up the facilities but it is mandatory outside the project site as "No development area" for 30 years.
2. "No development area" can be utilized for agriculture purpose.

(A. Sudhakar)  
Member Secretary

To,  
(As per list attached)  
All SPCBs/PCCs



AMENDED GUIDELINES ON THE  
PROVISION OF BUFFER ZONE  
AROUND WASTE  
PROCESSING AND DISPOSAL  
FACILITIES



Central Pollution Control Board  
March, 2019





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5. Recommended Provisions for Buffer Zone .....	10
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7. Operationalization Framework.....	15
8. Annexure-1- Selection Criteria for Plants near Processing Facility.....	17-24



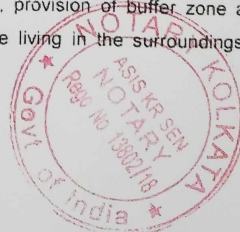


## 1. Introduction

Indian cities are expanding with the increase in population, economic activities and the resulting urbanization. Whereas population residing in urban areas was 11.4% of total population in 1901, it increased to 28.53% in the 2001 census and crossed 30% as per 2011 census, standing at 31.16%. There are 53 urban agglomerations in India with a population of 1 million or more as of 2011 against 35 in 2001. About 43 percent of the urban population of India lives in these cities. The unprecedented growth of these cities has posed several challenges for municipal authorities. Identification of suitable sites for waste management infrastructure in cities is one of the toughest challenges municipal authorities are facing at present. Lack of proper/ updated land use plan with urban authorities is a stumbling block in implementing solid waste management projects.

Most of the existing solid waste management facilities are practicing crude dumping of solid waste. In some cases where solid waste is processed, the situation is still alarming due to use of conventional treatment technologies coupled with poor operation and maintenance by the fund starved ULB. This situation is giving rise to numerous environmental and public health concerns in and around urban areas. "Not in My Back Yard (NIMBY) syndrome" and litigations are common as public at large do not trust ULBs in providing credible waste management services. Majority of existing solid waste treatment plants and dumping sites, though initially away from habitation but now have no adequate buffer zone from these habitations. Buffer even where available have come under illegal encroachment in many cities and settling societies demand shifting the waste treatment facility itself. Thus there is a general public resistance to the location of waste management facility in any area. Lack of identified sites for municipal solid waste management in master plan compounds the problem.

Disposal of waste in landfills/ dumpsites without any treatment is still practiced even as it impacts on the surrounding environment. Waste management sites encompass waste processing/disposal facilities, which become sources of pollution in terms of air, water, land and noise besides emitting foul smell. Therefore, provision of buffer zone around these facilities is essentially required to protect people living in the surroundings from



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exposure/impacts of such pollutants but also to ensure continued safe operations in the waste management facility by maintaining its "island character". Buffer zone also acts as barrier, absorber and to some extent as remedial measure against the fugitive emissions. Fugitive emissions of pollutants emitted during handling of waste, storage, transportation and movements of traffics.

Currently, no scientific basis is available for making provisions for buffer zone around waste processing/disposal facilities. The provisions recommended in the "Municipal Solid Waste Management Manual, 2016" were broadly drawn from the "Report of the Committee constituted by the Hon. Supreme Court of India in March 1999" on Solid Waste Management in Class 1 Cities in India.

In this context, the Government of India through CPCB has framed these guidelines on maintaining Buffer zone including green belt around waste management facilities. These guidelines will not only facilitate the ULBs in meeting the regulatory requirements, reduce the aforesaid nuisance value of the waste management facilities but also make an effort to enhance their aesthetic appeal. In addition to above, the siting criteria for setting up these facilities for waste processing/ landfill is adopted as mentioned in SWM Rules, 2016 at tailing part of these guidelines.

In some instances, the actual separation distance may vary from those recommended in these Guideline, due to site-specific constraints. In such cases, variations to the recommended separation distances may be acceptable, subject to detailed assessment by concerned authorities and to the satisfaction of the State Pollution Control Board/Committee.

## 2. Objective of the Guidelines

The purpose of this Guideline is to specify adequate separation distances between solid waste management facility and its surrounding area having different land usage characteristics.

To achieve the purpose, these Guidelines aim to:

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- minimize the risk of adverse impacts on the environment (land, air, water, noise pollution) and the impacts on the Public Health
- inform and support strategic land use planning decisions and prevent encroachment of controlled areas
- Generate/ develop public acceptance for solid waste treatment and disposal infrastructure
- Encourage new technological innovations for processing facilities with minimal land requirement

### 3. Regulatory Framework

The buffer zone was first envisaged in 1982 after Indian task force developed the 'Core-Buffer-Multiple Use Zone' strategy. This strategy aimed at separating incompatible land uses, particularly in relation to wildlife. In this approach, the buffer zone would be under the wildlife park authorities' administration and controlled use of forest produce would be allowed. The multiple-use zone was located outside the park boundaries designated for rural development. With similar analogy, these buffer zone guidelines are framed for waste processing and disposal facilities. The existing regulatory provisions for these guidelines are given as under:

- i. Provisions related to Buffer Zone specified in the **Solid Waste Management Rules, 2016** mentioned as under;
  - **Rule 11 Section (l)- Duties of the Secretary-in-charge, Urban Development in the States and Union territories-** Notify buffer zone for the solid waste processing and disposal facilities of more than five tonnes per day in consultation with the State Pollution Control Board
  - **Rule 12 Section (h)- Duties of Central Pollution Control Board-** 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 tonnes per day of solid waste;

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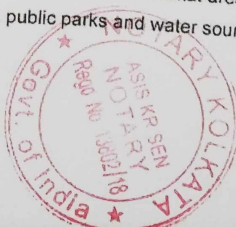




- The distance/siting criteria's for setting up waste management facilities as specified in Solid Waste Management Rules, 2016 at Schedule I (A)(vii)
  - Schedule I (A) (viii)-The sites for landfill and processing and disposal of solid waste shall be incorporated in the Town Planning Department's land-use plans.
  - Schedule I (A) (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.**
  - Schedule I (F)-Criteria for ambient air quality monitoring
- ii. The Coastal Zone Regulation notified by Ministry of Environment Forest And Climate Change also prohibits setting up and expansion of units or mechanism for disposal of wastes in High Tide Line (hereinafter referred to as the HTL) to 500 mts on the landward side along the sea front. Also dumping of city or town wastes including construction debris, industrial solid wastes, fly ash for the purpose of land filling and the like with high tide line shall be regulated by the concerned authority, where shall implement schemes for phasing out any existing practice, if any.
- iii. The buffer zone guidelines for setting up processing and disposal facility also come under the purview of The Water (Prevention and Control of Pollution) Act, 1974, The Air (Prevention and Control of Pollution) Act, 1981.
- iv. For setting up solid waste processing and disposal facilities, The Environment (Protection) Act, 1986 also need to be adhered to particularly from the angle of Environmental Clearances. Authorities concerned need to deliberate on the number of issues and criteria when siting a buffer zone as broadly categorized below:

a) *Environmental considerations*

- Distance from the flood plains, coastal regulation, wetland, Critical habitat areas, sensitive eco-fragile areas, highways, habitations, public parks and water sources





- Topography- Hilly areas, land availability and also the slope's landslide potential.
  - Wind Speed and Direction- Wind direction is one of the important consideration as to the area that can be affected due to dust and odour.
- b) *Proximity and access considerations*
- Transportation Network
  - Utilities and Services
- c) *Land-use considerations*
- Land Usage and Activities on Adjacent Sites
  - Allowable Land Uses and Zoning
  - Proximity to Airports
  - Proximity to Other Waste Management Facilities

#### 4. Existing Norms for Buffer Zone in India and Abroad

##### A.) Buffer Zone

The buffer zone, particularly in context of NIMBY syndrome in India, is one of the limiting conditions for obtaining Environmental Clearance for setting up solid waste processing and disposal facilities. At present, there are no published norms for buffer zone for solid waste management facilities by MoEFCC/ CPCB.

However, the "Manual on Municipal Solid Waste Management, 2016" published by CPHEEO, Ministry of Urban Development recommends certain provisions for buffer zone particularly the one of maintaining 500 m buffer zone around the waste processing facilities. In the given pace of urbanization in the country, getting such large piece of land is becoming increasingly difficult and costly. ULBs in setting up waste processing and disposal facilities expeditiously.

The provisions made for Buffer zone for solid waste processing and disposal facilities in various countries are tabulated below:

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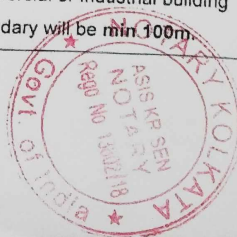


## i. Landfill

International Solid Waste Association	500 m should be provided depending on the size of landfill, height, wind direction
South Australia	500m buffer distance shall be maintained between areas dedicated for waste disposal and the nearest surface water
Ontario, Canada	<p>Buffer area shall be at least 100 m wide at every point, if that does not apply to a buffer area, if the buffer area is at least 30 metres wide at every point and a written report confirms that;</p> <p>(a) the buffer area provides adequate space for vehicle entry, exit, turning, access to all areas of the site and parking;</p> <p>(b) the buffer area provides adequate space on the surface of the site for all anticipated structures, equipment and activities; and</p> <p>(c) the buffer area is sufficient to ensure that potential effects of the landfilling operation do not have any unacceptable impact outside the site.</p>
Malaysia	500m
South Africa	Buffer zone min 200m to 500m
Bangladesh	250m from the habitat
Hong Kong	250 m away from the edge of the waste (landfill boundary)

## ii. Waste processing facilities

Canada	<p>minimum buffer strip between composting facility boundary and adjacent property. For in-vessel Composting distance between active area and the nearest residential or institutional building shall be min 500m, nearest commercial or industrial building 250 m and nearest property boundary will be min 100m.</p>
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CANADA-Nova Scotia	In case of in-vessel composting facilities, where it can be demonstrated that particular equipment will not release odours generated from the composting process into the surrounding environment, the distance between the equipment and the nearest property boundary shall be a minimum of <b>30 metres</b>
Malaysia	production of compost from organic waste- 500m
Devon city Council (UK)	buffer distance 500m
China	300m buffer zone between incineration plants and local residents

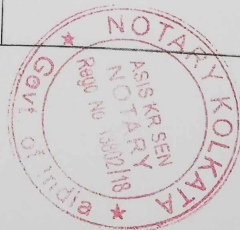
From above, it is observed that the minimum buffer area varies from 100 m to 500 m in case of both waste processing and disposal facilities.

#### B.) Facility Siting Criteria

In addition to the suitable provisions of the buffer zone, the SWM Rules, 2016 provides norms for siting criteria for landfills. The same is reproduced below for adoption while setting up landfill facilities.

**Table 1. Criteria specified for identifying Suitable Land for Sanitary Landfill Sites (Not a treatment facility)**

S. No.	Place	Minimum Siting Distance
1.	Rivers	100 m away
2.	Ponds, Lakes, water bodies	200 m
3.	Highway, Habitations, Public Parks and water supply wells	200 m from center line
4.	Flood Plains as recorded for the last 100 years, zone of coastal regulation, wetland, Critical habitat areas, and sensitive eco-fragile	Sanitary landfill site not permitted





	areas	
5.	Airport/ Airbase	20 km**

*\*\*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.*

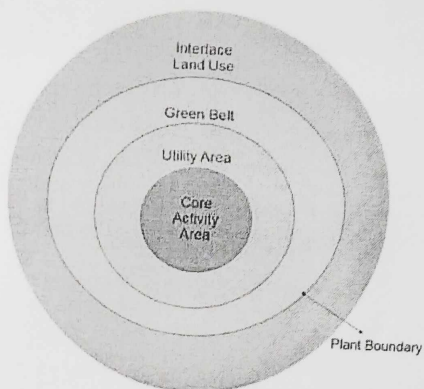
However, there is no such siting criteria applicable for setting up waste processing facilities.

### 5. Recommended Provisions for Buffer Zone

The Solid Waste Management Rules, 2016 specified the terminology of Buffer Zone, as *"no development zone to be maintained around solid waste processing and disposal facility, exceeding 5 TPD of installed capacity. This will be maintained within total land area allotted for the solid waste processing and disposal facility."*

Buffer Zone around the core waste processing area consists of utility area, open parks and green belts etc. Further, depending on feasibility of planning, the interface land use between the boundary of waste processing facility and sensitive receptors, can also be developed as an additional measure. The layout of buffer zone (utility area, open parks and green belts) including core waste processing area and optional interface land use is shown in the figure below:

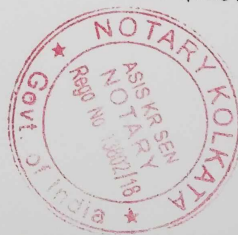




*Figure 1 Depicts activity boundary, green belt and separation distance*

For the purpose of these guidelines, the Buffer Zone, Separation Distance, Utility Area, Green belt and Interface Land use shall have the meanings set out below, unless otherwise provided, hereafter, for the exclusive interpretation of these Guidelines.

- a) The **Buffer Zone** is generally defined as an area of restricted activities, depending on the activity in adjacent land uses. It also ensures long-term continuous availability of disposal sites by avoiding potential conflicts between waste disposal sites and adjacent lands with different users.
- b) **Buffer Distance or Separation distance** is measured as the areal distance between the source of emission and sensitive receptors. For the purpose of these guidelines and addressing the required protection from adverse impacts, separation distance is measured from the tip of core SWM facility processing boundary, as the source of emission, to the nearest boundary of the property of sensitive receptors as shown in figure 1.



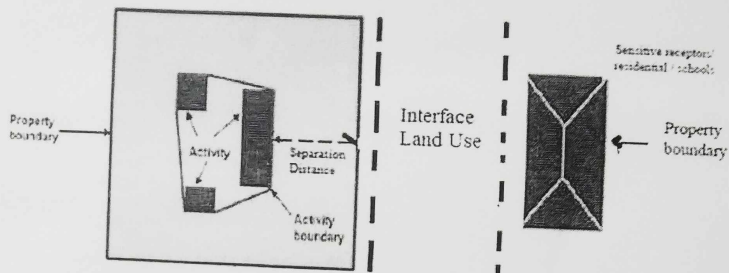
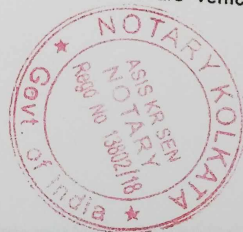


Figure 2. Core Plant activity area, buffer Zone and interface land use

- c) **Core Waste Processing/Landfilling Area** typically requires space for receiving waste, storing waste, segregation of waste and treatment units within the facility. Similarly, for Landfilling it is the area of cell which is receiving the waste/inert.
- d) **Utility Area** within the facility is designated area for the facility operations other than the core activities like. Weigh bridge, parking, vehicle cleaning, laboratory, emergency services etc.
- e) **Green Belt** for the purpose of these guidelines shall refer to an area that is kept in reserve within the allotted land for setting up facility, around the core SWM processing area, for the purpose of plantation and landscaping to reduce the adverse effects from pollutants like air & noise, soil erosion control etc. It also works as a natural shield to protect people around the facility from these pollutants.
- f) **Interface Land Use:** The buffer zone could be further augmented with interface land use area, where above beneficial and feasible as an additional optional measure, after due approval of the concerned authorities. The interface land use shall not generate significant emissions, nor warrants protection from them. The activities in the interface land use are vehicle





showrooms, service stations, warehouses, display homes, emergency services facilities, funeral, veterinary clinic and parks etc.

i. **Separation Distances for Solid Waste Processing and Disposal Facilities**

Ideally, a distance of 500 meter from the boundary of the Solid Waste Processing and Disposal Facility (sanitary landfill) should be maintained. However, on case to case basis a distance of minimum 200 meter from the Solid Waste Processing and Disposal Facility (sanitary landfill) can be considered subject to the condition that such facility meets the stipulated standards prescribed by State Pollution Control Board with respect to ambient air as well as for stack emissions.

The above provisions have been made keeping in view of high population density in urban areas, scarcity of land to set up such facilities and protest from local inhabitants in the area of processing/ disposal facility and is in line with those being adopted at international level. Besides, the following three conditions need to be ensured:

- (a) the buffer area provides adequate space for vehicle entry, exit, turning, access to all areas of the site and parking;
- (b) the buffer area provides adequate space on the surface of the site for all anticipated structures, equipment and activities; and
- (c) the buffer area coupled with technological interventions is sufficient to ensure that potential effects of the processing/ landfilling operation do not have any unacceptable impact outside the site.

**Note:**

1. Land of 200-500 m from the boundary of the processing unit is excluded for setting up the facilities but it is mandatory outside the project site as "No development area" for 30 years.
2. No Development area can be utilized for agriculture purpose.



## 6. Green Belt

The buffer zone effectiveness is reinforced by the green belt within the solid waste processing and disposal boundaries. An important aspect of a green belt sometimes overlooked is that the plants constituting green belts are living organisms with limits to their tolerance towards air pollutants. For the purpose of these guidelines, the green belt shall refer to an area that is kept in reserve within and around the SWM facility for the plantation and landscaping to reduce the adverse effects from the activity area like air & noise pollution, soil erosion etc. The green belt is an effective pollution sink only within the tolerance limits of constituent plants. The philosophy is that when primary pollutants are taken care of, formation of secondary pollutants will not reach menacing proportions. Primary pollutants of concern are – SO<sub>2</sub>, HF, NO<sub>2</sub>, CO, CO<sub>2</sub>, NH<sub>3</sub>, H<sub>2</sub>S, Cl, SPM and organics. **Annexure- 1** attached to these guidelines shows the selection criteria for plants near the processing facility.

These guidelines recommend minimum 10 metres green belt within and all around the facility along the boundary. Vegetation, shrubs, trees, and berms with high density greenery can be incorporated into green belt within facility limits to serve as visual barriers and to reduce noise levels. Depending on the monitoring of level of pollutants in ambient air after the boundary of facility, on case to case basis, suitable technological measures/ barriers to check pollutants need to be resorted. The important factors for developing green belt for agro-climatic conditions are stated below:

### a) Criteria for Selection for Plant Species

- The plant species should be fast growing
- They should have thick canopy cover
- They should be perennial and evergreen
- They should have high carbon – CO<sub>2</sub> sink potential
- They should be effective in absorbing pollutants without significantly affecting their growth



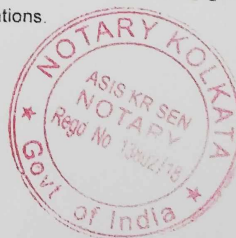
**b) Recommended plant species:**

Keeping in view the nature of pollutants expected from the disposal site, a green belt of minimum 10 metre width is recommended and the following plant species can be selected for plantation:

- Acacia nilotica (Babul)
- Deldergia Sissoo (Shishum)
- Acacia auriculiformis (Australian Babul).
- Azadirachta Indica (Neem)
- Lagerstroemia speciosa (Jamun)
- Prongamia pinnata (Karanji)

**c) Recommended plant species Density around Processing & Disposal/ Landfill site:**

These guidelines recommend the green belt width of minimum 10 meters within and all around processing and disposal facilities. The recommended minimum density of the green belt should be as discussed in the green belt model provided in the CPCB guidelines for developing green belts in 2000. These guidelines introduce the concept of a pollution attenuation coefficient for estimating the removal of pollutant while passing through the green belt. The formulation of pollution attenuation coefficient makes use of parameters such as leaf area, density of the tree plantation, deposition velocity of the pollutant on leaf surface and wind speed to the green belt. The model gives the dependence of the pollution attenuation factor of a green belt on various physical parameters of the green belt such as its height, width, distance from the pollution source and on atmospheric stability conditions and hence the model can be used to optimize the design of the green belt in obtaining the desired degree of attenuation of the pollution around an industry. The case to case basis CPCB guidelines for developing green belts (March, 2000) to be referred for optimal density applications.



## 7. Operationalization Framework

Solid Waste Management Rules, 2016 has empowered Central Pollution Control Board for maintaining buffer zones 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 tonnes per day of solid waste. The guidelines will be updated, from time to time, and address environmental aspects of processing and disposal of solid waste to enable local bodies to comply with the provisions of SWM Rules, 2016.

### i. Role of State Pollution Control Board

- a) The SPCB shall link the buffer zone achievement with grant of Consent to operate and establish under stipulated norms;
- b) The SPCB shall conduct periodic environmental monitoring around buffer zone and assess the impact on the sensitive receptors;
- c) The SPCB shall bi-annually review the Green Belt condition within the facility premises and give suggestions to the ULBs for further improvements. Stringent measures and penalties as per the stipulated norms to be imposed in case of default;
- d) The SPCB shall extend all necessary support to local authority for the site selection for the newly proposed waste processing and disposal facility;

### ii. Role of Local Body/ Facility Operator

- a) The ULB shall be responsible for the selection of site in close coordination with SPCB;
- b) The ULB/ operator shall be responsible for green belt development and maintenance in the buffer zone;
- c) The ULB shall direct the operator concerned, in case it outsources facility to comply with these guidelines

### iii. Role of Town and Country Planning Department

- a) Town and Country Planning Department shall allocate adequate land for waste



management facilities in the Master Land Use Plan;

- b) Town and Country Planning Department shall make all efforts to restrict/ prohibit peri-urban growth near such facility;
- c) Town and Country Planning Department shall be responsible for making provisions of Green Area development around such existing/ exhausted facilities to the extent feasible to minimize the impact of pollution to sensitive receptors.



MINISTRY OF ENVIRONMENT AND FORESTS

NOTIFICATION

New Delhi, the 14th February, 2000

<sup>1</sup>[S.O.123(E) – Whereas, the increasing ambient noise level in public places from various sources, inter-alia, industrial activity, construction activity, <sup>2</sup>[fire crackers, sound producing instruments], generator sets, loud speakers, public address systems, music systems, vehicular horns and other mechanical devices have deleterious effects on human health and the psychological wellbeing of the people; it is considered necessary to regulate and control of noise producing and generating sources with the objective of maintaining the ambient air quality standards in respect of noise;

Whereas, a draft of Noise Pollution (Control and Regulation) Rule, 1999 was published under the notification of the Government of India in the Ministry of Environment and Forests vide number S.O.528 (E), dated the 28th June, 1999 inviting objections and suggestions from all the persons likely to be affected thereby, before the expiry of the period of sixty days from the date on which the copies of the Gazette containing the said notification are made available to the public;

And, whereas, copies of the said Gazette were made available to the public on the 1st day of July, 1999;

And, whereas the objections and suggestions received 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 clause (ii) of sub-section (2) of section 3, sub-section (1) and clause (b) of sub-section (2) of section 6 and section 25 of the Environment (Protection) Act, 1986 (29 of 1986) read with rule 5 of the Environment (Protection) Rules, 1986, the Central Government here by makes the following rules for the regulation and control of noise producing and generating sources, namely: -

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

- (1) These rules may be called the Noise Pollution (Regulation and Control) Rules, 2000.
- (2) They shall come into force on the date of their publication in the Official Gazette.

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

- (a) "Act" means the Environment (Protection) Act, 1986 (29 of 1986);
- (b) "area/zone" means all areas which fall in either of the four categories given in the Schedule annexed to these rules;

<sup>3</sup>[(c) "authority" means and includes any authority or officer authorized by the Central Government, or as the case may be, the State Government in accordance with the laws in force and includes a District Magistrate, Police Commissioner, or any other officer not below the rank of the Deputy Superintendent of Police designated for the maintenance of the ambient air quality standards in respect of noise under any law for the time being in force];

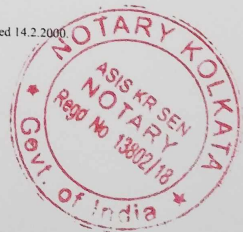
<sup>4</sup>[(d) "court" means a governmental body consisting of one or more judges who sit to adjudicate

<sup>1</sup> As published in the Gazette of India, Extraordinary, Part II-Section 3(ii), vide S.O. 123 (E), dated 14.2.2000.

<sup>2</sup> Ins.by S.O.50 (E), dated 11.01.2010

<sup>3</sup> Subs. by S.O. 1046(E), dated 22.11.2000, w.e.f. 22.11.2000

<sup>4</sup> Ins. by S.O. 1046(E), dated 22.11.2000, (w.e.f. 22.11.2000)



disputes and administer justice and includes any court of law presided over by judge, judges or a magistrate and acting as a tribunal in civil, taxation and criminal cases;

- (e) "educational institution" means a school, seminary, college, university, professional academies, training institutes or other educational establishment, not necessarily a chartered institution and includes not only buildings, but also all grounds necessary for the accomplishment of the full scope of educational instruction, including those things essential to mental, moral and physical development;
- (f) "hospital" means an institution for the reception and care of sick, wounded, infirm or aged persons, and includes government or private hospitals, nursing homes and clinics;]
- <sup>1</sup>[(g) "person" shall include any company or association or body of individuals, whether incorporated or not;]
- <sup>2</sup>[(h) "State Government" in relation to a Union territory means the Administrator thereof appointed under article 239 of the Constitution;]
- <sup>3</sup>[(i) "public place" means any place to which the public have access, whether as of right or not, and includes auditorium, hotels, public waiting rooms, convention centres, public offices, shopping malls, cinema halls, educational institutions, libraries, open grounds and the like which are visited by general public; and
- (j) "night time" means the period between 10.00 p.m. and 6.00 a.m.]

3. **Ambient air quality standards in respect of noise for different areas/zones. -**

- (1) The ambient air quality standards in respect of noise for different areas/zones shall be such as specified in the Schedule annexed to these rules.
- (2) The State Government <sup>4</sup>[shall categorize] the areas into industrial, commercial, residential or silence areas/zones for the purpose of implementation of noise standards for different areas.
- (3) The State Government shall take measures for abatement of noise including noise emanating from vehicular movements, <sup>5</sup>[blowing of horns, bursting of sound emitting fire crackers, use of loud speakers or public address system and sound producing instruments] and ensure that the existing noise levels do not exceed the ambient air quality standards specified under these rules.
- (4) All development authorities, local bodies and other concerned authorities while planning developmental activity or carrying out functions relating to town and country planning shall take into consideration all aspects of noise pollution as a parameter of quality of life to avoid noise menace and to achieve the objective of maintaining the ambient air quality standards in respect of noise.
- (5) An area comprising not less than 100 metres around hospitals, educational institutions and courts may be declared <sup>6</sup>[by the State Government] as silence area/zone for the purpose of these rules.

<sup>1</sup> Re-numbered and subs. S.O.1046(E), dated 22.11.2000, (w.e.f. 22.11.2000)

<sup>2</sup> Re-numbered by Rule 2(ii), ibid.

<sup>3</sup> Ins. By S.O. 50 (E), dated 11.01.2010 (w.e.f. 11.01.2010)

<sup>4</sup> Subs. by S.O.1046(E), dated 22.11.2000, (w.e.f. 22.11.2000)

<sup>5</sup> Ins. by S.O. 50 (E), dated 11.01.2010

<sup>6</sup> Ins. by S.O. 2555 (E), dated 10.08.2017 (w.e.f. 10.08.2017).





<sup>3</sup>[Provided that, an area shall not fall under silence area or zone category, unless notified by the State Government in accordance with sub-rule (2).]

4. **Responsibility as to enforcement of noise pollution control measures. -**

- (1) The noise levels in any area/zone shall not exceed the ambient air quality standards in respect of noise as specified in the Schedule.
- (2) The authority shall be responsible for the enforcement of noise pollution control measures and the due compliance of the ambient air quality standards in respect of noise.

<sup>1</sup>[(3) The respective State Pollution Control Boards or Pollution Control Committees in consultation with the Central Pollution Control Board shall collect, compile and publish technical and statistical data relating to noise pollution and measures devised for its effective prevention, control and abatement.]

5. **Restrictions on the use of loud speakers/public address system <sup>2</sup>[and sound producing instruments], -**

- (1) A loud speaker or a public address system shall not be used except after obtaining written permission from the authority.

<sup>3</sup>[(2) A loud speaker or a public address system or any sound producing instrument or a musical instrument or a sound amplifier shall not be used at night time except in closed premises for communication within, like auditoria, conference rooms, community halls, banquet halls or during a public emergency.];

<sup>4</sup>[(3) Notwithstanding anything contained in sub-rule (2), the State Government may subject to such terms and conditions as are necessary to reduce noise pollution, permit use of loud speakers or public address systems and the like during night hours (between 10.00 p.m. to 12.00 midnight) on or during any cultural, religious or festive occasion of a limited duration not exceeding fifteen days in all during a calendar year and the concerned State Government or District Authority in respect of its jurisdiction as authorised by the concerned State Government shall generally specify in advance, the number and particulars of the days on which such exemption should be operative.

*Explanation.* - For the purposes of this sub-rule, the expressions

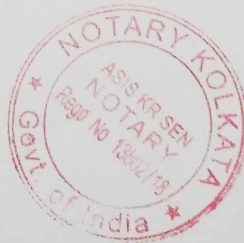
- (i) "festive occasion" shall include any National function or State function as notified by the Central Government or State Government; and
- (ii) "National function or State function "shall include"-
  - (A) Republic Day;
  - (B) Independence Day;
  - (C) State Day; or
  - (D) such other day as notified by the Central Government or the State Government.]

<sup>1</sup> Ins. by S.O.1569(E), dated 19.9.2006. (w.e.f. 19.09.2006)

<sup>2</sup> Ins. by S.O.50 (E), dated 11.01.2010 (w.e.f.11.01.2010).

<sup>3</sup> Subs. by S.O.50 (E), dated 11.01.2010

<sup>4</sup> Subs. by S.O. 2555 (E) dated 10.08.2017 (w.e.f. 10.08.2017).



<sup>1</sup>[(4) The noise level at the boundary of the public place, where loud speaker or public address system or any other noise source is being used shall not exceed 10 dB(A) above the ambient noise standards for the area or 75 dB(A) whichever is lower.

(5) The peripheral noise level of a privately owned sound system or a sound producing instrument shall not, at the boundary of the private place, exceed by more than 5 dB(A) the ambient noise standards specified for the area in which it is used].

<sup>2</sup>5A. Restrictions on the use of horns, sound emitting construction equipments and bursting of fire crackers. -

- (1) No horn shall be used in silence zones or during night time in residential areas except during a public emergency.
- (2) Sound emitting fire crackers shall not be burst in silence zone or during night time.
- (3) Sound emitting construction equipments shall not be used or operated during night time in residential areas and silence zones.]

6. Consequences of any violation in silence zone/area. -

Whoever, in any place covered under the silence zone/area commits any of the following offence, he shall be liable for penalty under the provisions of the Act: -

- (i) whoever, plays any music or uses any sound amplifiers,
- (ii) whoever, beats a drum or tom-tom or blows a horn either musical or pressure, or trumpet or beats or sounds any instrument,
- (iii) whoever, exhibits any mimetic, musical or other performances of a nature to attract crowds,
- <sup>3</sup>[(iv) whoever, bursts sound emitting fire crackers; or
- (v) whoever, uses a loud speaker or a public address system.]

7. Complaints to be made to the authority. -

- (1) A person may, if the noise level exceeds the ambient noise standards by 10 dB(A) or more given in the corresponding columns against any area/zone <sup>4</sup>[or, if there is a violation of any provision of these rules regarding restrictions imposed during night time], make a complaint to the authority.
- (2) The authority shall act on the complaint and take action against the violator in accordance with the provisions of these rules and any other law in force.

8. Power to prohibit etc. continuance of music sound or noise. -

- (1) If the authority is satisfied from the report of an officer incharge of a police station or other information received by him <sup>5</sup>[including from the complainant] that it is necessary to do so in order to prevent annoyance, disturbance, discomfort or injury or risk person who dwell

<sup>1</sup> Ins. by S.O.50 (E), dated 11.01.2010

<sup>2</sup> Ins. by S.O. 50 (E), dated 11.01.2010 (w.e.f. 11.01.2010)

<sup>3</sup> Ins. by S.O.50(E), dated 11.01.2010 (w.e.f. 11.01.2010)

<sup>4</sup> Ins. by S.O.50(E), dated 11.01.2010 (w.e.f.11.01.2010)

<sup>5</sup> Ins. by S.O.1569 (E), dated 19.9.2006 (w.e.f. 19.06.2010)



or occupy property on the vicinity, he may, by a written order issue such directions as he may consider necessary to any person for preventing, prohibiting, controlling or regulating:

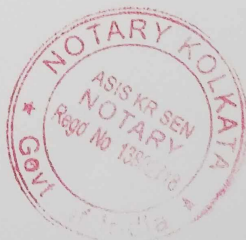
- (a) the incidence or continuance in or upon any premises of –
    - (i) any vocal or instrumental music,
    - (ii) sounds caused by playing, beating, clashing, blowing or use in any manner whatsoever of any instrument including loudspeakers, <sup>1</sup>[public address systems, horn, construction equipment, appliance or apparatus] or contrivance which is capable of producing or re-producing sound, or
    - <sup>2</sup>(iii) sound caused by bursting of sound emitting fire crackers, or]
  - (b) The carrying on in or upon, any premises of any trade, a vocation or operation or process resulting in or attended with noise.
- (2) The authority empowered under sub-rule (1) may, either on its own motion, or on the application of any person aggrieved by an order made under sub-rule (1), either rescind, modify or alter any such order:

Provided that before any such application is disposed of, the said authority shall afford to the applicant <sup>3</sup>[and to the original complainant, as the case may be] an opportunity of appearing before it either in person or by a person representing him and showing cause against the order and shall, if it rejects any such application either wholly or in part, record its reasons for such rejection.

<sup>1</sup> Subs. by S.O.50(E), dated 11.01.2010 (w.e.f. 11.01.2010)

<sup>2</sup> Ins.by S.O.50 (E), dated 11.01.2010. (w.e.f. 11.01.2010)

<sup>3</sup> Ins.by S.O.1569 (E) dated 19.9.2006. (w.e.f.19.09.2006)



## SCHEDULE

[See rule 3(1) and 4(1)]

## Ambient Air Quality Standards in Respect of Noise

Area Code	Category of Area/Zone	Limits in dB(A) Leq*	
		Day Time	Night Time
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Note: -

1. Day time shall mean from 6.00 a.m. to 10.00 p.m.
2. Night time shall mean from 10.00 p.m. to 6.00 a.m.
3. <sup>1</sup>[\*\*\*]
4. Mixed categories of areas may be declared as one of the four abovementioned categories by the competent authority.

\*dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

A "decibel" is a unit in which noise is measured.

"A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.

Leq: It is an energy mean of the noise level over a specific period.

[F. No Q-14012/1/96-CPA]

VIJAI SHARMA, Jt. Secy.

**Note:** The principal rules were published in the Gazette of India vide number, S.O.123(E), dated 14<sup>th</sup> February, 2000 and subsequently amended vide S.O.1046(E), dated 22<sup>nd</sup> November, 2000, S.O. 1088(E), dated 11<sup>th</sup> October, 2002, S.O. 1569(E), dated the 19<sup>th</sup> September, 2006, S.O.50(E), dated 11.01.2010 and were last amended vide S.O. 50 (E), dated the 11th January, 2011.

<sup>1</sup> Omitted by S.O. 2555 (E), dated 10.08.2017 (w.e.f. 10.08.2017).

