

THE PLASTIC WASTE (MANAGEMENT AND HANDLING) RULES, 2011¹

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 Recycled Plastics Manufacture and Usage Rules, 1999, except as respects things done or omitted to be done before such supersession, the Central Government hereby makes the following Rules, namely:—

1. Short title and commencement.—(1) These rules may be called the Plastic Waste (Management and Handling) Rules, 2011.

(2) They shall come into force on the date² of their publication in the Official Gazette.

³[2. (1) The provisions of rules 5 and 8 shall not apply to the manufacture of carry bags exclusively for export purposes, against an order for export, received by the owner or occupier of the concerned manufacturing unit.

(2) This exemption does not apply to any surplus or rejects, left over and the like.]

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

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

⁴[(b) “carry bags” means bags made from any plastic material, used for the purpose of carrying or dispensing commodities but do not include bags that constitute or form an integral part of the packaging in which goods are sealed prior to use;]

(c) “Commodities” mean articles; including but not limited to vegetables, fruits, pharmaceuticals, food grains and the like;

(d) “Compostable plastics” mean plastic that undergoes degradation by biological processes during composting to yield CO₂, water, inorganic compounds and biomass at a rate consistent with other known compostable materials and does not leave visible, distinguishable or toxic residue;

1. *Vide* G.S.R. 249(E), dated 4th February, 2011, published in the Gazette of India, Extra., Pt. II, Sec. 3(ii), dated 4th February, 2011.

2. Came into force on 4-2-2011.

3. Subs. by S.O. 1527(E), dated 2nd July, 2011, for rule 2 (w.e.f. 2-7-2011). Rule 2, before substitution, stood as under:

“2. *Application.*—The provisions of rules 5 and 8 shall not apply to the manufacture of carry bags exclusively for export purposes, by export oriented manufacturing units, against an order for export received by the owner or occupier of the concerned manufacturing unit. This exemption does not apply to any surplus or rejects, left over and the like.”.

4. Subs. by S.O. 1527(E), dated 2nd July, 2011, for clause (b) (w.e.f. 2-7-2011). Clause (b), before substitution, stood as under:

‘(b) “Carry bags” mean all plastic bags used to carry commodities, including self-carrying features;’.

- (e) "Consent" means the consent to establish and operate from the concerned State Pollution Control Board or Pollution Control Committee granted under the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974), and the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981);
- (f) "Disintegration" means the physical breakdown of a material into very small fragments;
- ¹[(g) "Extended producer's responsibility (EPR)" means the responsibility of a manufacturer of plastic carry bags, and multilayered plastic pouches and sachets and the brand owners using such carry bags and multilayered plastic pouches and sachets for the environmentally sound management of the product until the end of its life;]
- (h) "Food-stuffs" mean ready to eat food products, fast food, processed or cooked food in liquid, powder, solid or semi-solid form;
- ²[(i) "manufacturer" means any person who manufactures plastic carry bags or multilayered plastic pouches or sachets or like;]
- (j) "Municipal authority" means Municipal Corporation, Municipality, Nagar Palika, Nagar Nigam, Nagar Panchayat, Municipal Council including Notified Area Committee (NAC) or any other local body constituted under the relevant statutes and, where the management and handling of municipal solid waste is entrusted to such agency;
- ³[(k) "multilayered plastic pouch or sachet" means a pouch or sachet having at least one layer of plastic in combination with one or more layers of packaging material such as paper, paper board, metalised layers or aluminium foil, either in the form of a laminate or co-extruded structure;]
- (l) "Plastic" means material which contains as an essential ingredient a high polymer and which at some stage in its processing into finished products can be shaped by flow;

1. Subs. by S.O. 1527(E), dated 2nd July, 2011, for clause (g) (w.e.f. 2-7-2011). Clause (g), before substitution, stood as under:

'(g) "Extended producer's responsibility (EPR)" means the responsibility of a producer or manufacturer of plastic carry bags and multilayered plastic pouches or packages for the environmentally sound management of the product until the end of its life. This responsibility also applies to all manufacturers using such packaging;'

2. Subs. by S.O. 1527(E), dated 2nd July, 2011, for clause (i) (w.e.f. 2-7-2011). Clause (i), before substitution, stood as under:

'(i) "Manufacturer" means any producer who manufactures plastic carry bags, multilayered packaging, pouches and the like or uses such materials in packaging of a product;'

3. Subs. by S.O. 1527(E), dated 2nd July, 2011, for clause (k) (w.e.f. 2-7-2011). Clause (k), before substitution, stood as under:

'(k) "Multilayered plastics" mean any material having a combination of more than one layer of packaging material such as paper, paper board, polymeric materials, metalised layers or aluminium foil, either in the form of a laminate or co-extruded structure;'

- (m) "Plastic waste" means any plastic product such as carry bags, pouches or ¹[multilayered plastic pouch or sachet etc.], which have been discarded after use or after their intended life is over;
- ²[(n) "registration" means registration with the State Pollution Control Board or Pollution Control Committee concerned, as the case may be, of units manufacturing plastic carry bags, multilayered plastic pouch or sachet or recycling of plastic waste;]
- (o) "Virgin plastic" means plastic material which has not been subjected to use earlier and has also not been blended with scrap or waste;
- (p) "Waste management" means the scientific reduction, re-use, recovery, recycling, composting or disposal of plastic waste;
- (q) "Waste pickers" mean individuals or groups of individuals engaged in the collection of plastic waste.

4. Prescribed Authority.—The prescribed Authority means the Authority—

- ³[(a) for enforcement of the provisions of these rules related to registration, manufacture and recycling shall be the State Pollution Control Board and in respect of a Union territory shall be the Pollution Control Committee;
- (b) for enforcement of the provisions of these rules relating to the use, collection, segregation, transportation and disposal of plastic waste, the prescribed authority shall be the municipal authority concerned.]

5. Conditions.—During the course of manufacture, stocking, distribution, sale and use of carry bags and sachets, the following conditions shall be fulfilled, namely:—

- (a) carry bags shall either be ⁴[in natural shade (colourless) which is without any added pigments] or made using only those pigments and colourants which are in conformity with Indian Standard: IS 9833:1981 titled as List of pigments and colourants for use in plastics in contact with foodstuffs, Pharmaceuticals and drinking water, as amended from time-to-time;

1. Subs. by S.O. 1527(E), dated 2nd July, 2011, for "multilayered packaging" (w.e.f. 2-7-2011).

2. Subs. by S.O. 1527(E), dated 2nd July, 2011, for clause (n) (w.e.f. 2-7-2011). Clause (n), before substitution, stood as under:

'(n) "Registration" means registration of units manufacturing or recycling carry bags made of virgin or recycled plastics with the concerned State Pollution Control Board or Pollution Control Committee, as the case may be;'

3. Subs. by S.O. 1527(E), dated 2nd July, 2011, for clauses (a) and (b) (w.e.f. 2-7-2011). Clauses (a) and (b), before substitution, stood as under:

"(a) for enforcement of the provisions of these rules related to authorization, manufacture, recycling and disposal shall be State Pollution Control Board and Pollution Control Committee in respect of Union territory;

(b) for enforcement of the provisions of these rules relating to the use, collection, segregation, transportation and disposal of post-consumer plastic waste shall be the concerned municipal authority."

4. Subs. by S.O. 1527(E), dated 2nd July, 2011, for "white" (w.e.f. 2-7-2011).

- (b) no person shall use carry bags made of recycled plastics or compostable plastics for storing, carrying, dispensing or packaging food stuffs;
- (c) no person shall manufacture, stock, distribute or sell any carry bag made of virgin or recycled or compostable plastic, which is less than 40 microns in thickness;
- (d) sachets using plastic material shall not be used for storing, packing or selling gutkha, tobacco and pan masala;
- (e) recycled carry bags shall conform to the Indian Standard: IS 14534:1998 titled as Guidelines for Recycling of Plastics, as amended from time-to-time;
- (f) carry bags made from compostable plastics shall conform to the Indian Standard: IS/ISO 17088:2008 titled as Specifications for Compostable Plastics, as amended from time-to-time.
- ¹[(g) plastic material, in any form, shall not be used in any package for packing gutkha, pan masala and tobacco in all forms.]

6. Plastic Waste Management.—The plastic waste management shall be as under:—

- (a) recycling, recovery or disposal of plastic waste shall be carried out as per the rules, regulations and standards stipulated by the Central Government from time-to-time;
- (b) recycling of plastics shall be carried out in accordance with the Indian Standard : IS 14534:1998 titled as Guidelines for Recycling of Plastics, as amended from time-to-time;
- (c) the municipal authority shall be responsible for setting-up, operationalisation and co-ordination of the waste management system and for performing the associated functions, namely:—(i) to ensure safe collection, storage, segregation, transportation, processing and disposal of plastic waste; (ii) to ensure that no damage is caused to the environment during this process; (iii) to ensure setting-up of collection centres for plastic waste involving manufacturers; (iv) to ensure its channelisation to recyclers; (v) to create awareness among all stakeholders about their responsibilities; (vi) to engage agencies or groups working in waste management including waste pickers, and (vii) to ensure that open burning of plastic waste is not permitted;
- ²[(d) (i) the responsibility for setting up collection systems for plastic waste shall be of the municipal authority concerned and the said municipal authority may, for this purpose, seek the assistance of

1. Ins. by S.O. 1527(E), dated 2nd July, 2011 (w.e.f. 2-7-2011).

2. Subs. by S.O. 1527(E), dated 2nd July, 2011, for clause (d) (w.e.f. 2-7-2011). Clause (d), before substitution, stood as under:

“(d) for setting-up plastic waste collection centres, the municipal authority may ask the manufacturers, either collectively or individually in line with the principle of Extended Producer’s Responsibility (EPR) to provide the required finance to establish such collection centre;”.

- manufacturers of plastic carry bags, multilayered plastic pouches or sachets or of brand owners using such products;
- (ii) the municipal authority may work out the modalities of a mechanism based on Extended Producer's Responsibility involving such manufacturers, registered within its jurisdiction and brand owners with registered offices within its jurisdiction either individually or collectively, as feasible or set up such collection systems through its own agencies;]
- (e) recyclers shall ensure that recycling facilities are in accordance with the Indian Standard: IS 14534:1998 titled as Guidelines for Recycling of Plastics and in compliance with the rules under the Environment (Protection) Act, 1986, as amended from time-to-time;
- (f) the concerned municipal authority shall ensure that the residues generated from recycling processes are disposed of in compliance with Schedule II (Management of Municipal Solid Wastes) and Schedule III (Specifications for Landfill Sites) of the Municipal Solid Wastes (Management and Handling) Rules, 2000 made under the Environment (Protection) Act, 1986, as amended from time-to-time;
- (g) the municipal authority shall incorporate the said rules in the Municipal bye-laws of all the Urban Local Bodies;
- (h) the municipal authority shall encourage the use of plastic waste by adopting suitable technology such as in road construction, co-incineration etc. The municipal authority or the operator intending to use such technology shall ensure the compliance with the prescribed standards including ¹[pollution control norms] prescribed by the competent authority in this regard.

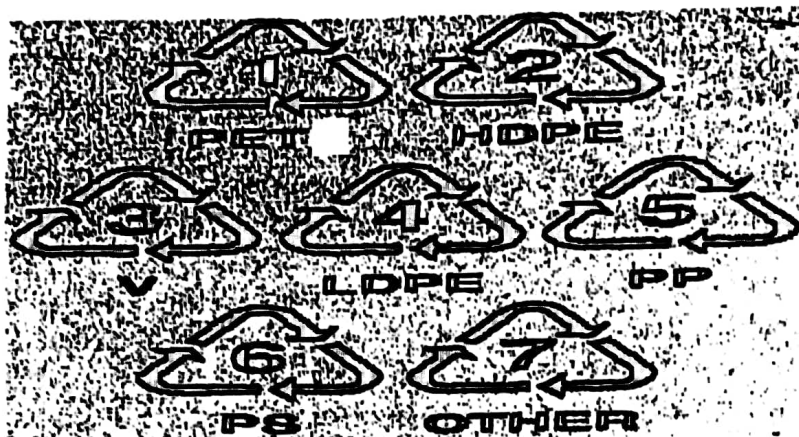
7. Protocols for Compostable Plastic Materials.—Determination of the degree of degradability and degree of disintegration of plastic material shall be as per the protocols of the Indian Standards listed in the Annexure to these rules.

8. Marking or Labelling.—

- (a) each plastic carry bag and ²[multilayered plastic pouch or sachet] shall have the following information printed in English or in local language, namely:—
- (i) name, registration number of the manufacturer and thickness in case of carry bag;
- (ii) name and registration number of the manufacturer in case of ²[multilayered plastic pouch or sachet].
- (b) each recycled carry bag shall bear a label or a mark "recycled" as shown below and shall conform to the Indian Standard: IS 14534: 1998 titled as Guidelines for Recycling of Plastics, as amended from time-to-time;

1. Subs. by S.O. 1527(E), dated 2nd July, 2011, for "pollution norms" (w.e.f. 2-7-2011).

2. Subs. by S.O. 1527(E), dated 2nd July, 2011, for "multilayered packaging" (w.e.f. 2-7-2011).



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

- (c) each carry bag made from compostable plastics shall bear a label "compostable" and shall conform to the Indian Standard : IS/ISO 17088:2008 titled as Specifications for Compostable Plastics;
- (d) retailers shall ensure that plastic carry bags and ¹[multilayered plastic pouch or sachet] sold by them are properly labelled, as per stipulations under these rules.

9. Registration of Manufacturers and Recyclers.—

- (a) any person manufacturing or proposing to manufacture ²[plastic carry bags, multilayered plastic pouch or sachet] shall apply to the State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) of the Union territory concerned for the grant of registration or for the renewal of registration for the manufacturing unit using Form 1 appended to these rules;
- (b) any person recycling or proposing to recycle carry bags or ¹[multilayered plastic pouch or sachet] or any plastic waste shall apply to the SPCB or PCC for grant of registration or renewal of registration for the recycling unit using Form 2 appended to these rules;
- ³[(c) no person shall manufacture plastic carry bags, multilayered plastic pouch or sachet or recycle plastic carry bags or multilayered plastic pouch or sachet or any plastic waste without obtaining registration

1. Subs. by S.O. 1527(E), dated 2nd July, 2011, for "multilayered packaging" (w.e.f. 2-7-2011).

2. Subs. by S.O. 1527(E), dated 2nd July, 2011, for "carry bags and multilayered plastics" (w.e.f. 2-7-2011).

3. Subs. by S.O. 1527(E), dated 2nd July, 2011, for clause (c) (w.e.f. 2-7-2011). Clause (c), before substitution, stood as under:

"(c) no person shall manufacture carry bags or recycle plastic bags or multilayered plastics unless without obtaining the registration certificate from the SPCB or PCC, as the case may be, prior to the commencement of production;"

certificate from the State Pollution Control Board or Pollution Control Committee, as the case may be, prior to the commencement of its production;]

- (d) the SPCB and PCC shall not issue or renew a registration for manufacturing or recycling units unless the unit possesses a valid consent under the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) and the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981) and certificate of registration issued by the District Industries Centre or any other government agency authorised in this regard;
- ¹[(e) (i) every State Pollution Control Board or Pollution Control Committee, as the case may be, shall take a decision on the grant of registration within a period of ninety days of receipt of an application which shall be complete in all respects:
- Provided that the registration may be deemed to have been granted in case no final decision is communicated to the applicant by the State Pollution Control Board or Pollution Control Committee within a period of ninety days from the date of an application complete in all respects;
- (ii) the manufacturer who has already registered for manufacturing under the Recycled Plastics Manufacture and Usage (Amendment) Rules, 2003 shall not be required to register under these rules and whereas others shall have to register within the period of ninety days from the date of coming into force of these rules.]
- (f) the registration granted under this rule shall be valid for a period of three years, unless revoked, suspended or cancelled; and registration shall not be revoked, suspended or cancelled without providing the manufacturer an opportunity for a hearing;
- (g) every application for renewal of registration shall be made at least ninety days before the expiry of the validity of the registration certificate.

10. Explicit pricing of carry bags.—No carry bags shall be made available free of cost by retailers to consumers. The concerned municipal authority may by notification determine the minimum price for carry bags depending upon their quality and size which covers their material and waste management costs in order to encourage their re-use so as to minimize plastic waste generation.

11. State Level Advisory Body.—

- (1) There shall be a State Level Advisory Body to monitor the implementation of these rules.

1. Subs. by S.O. 1527(E), dated 2nd July, 2011, for clause (e) (w.e.f. 2-7-2011). Clause (e), before substitution, stood as under:

"(e) every State Pollution Control Board or Pollution Control Committee shall take a decision on the grant of registration within ninety days of receipt of an application that is complete in all respects;"

- (2) The State Level Advisory Body shall consist of the following persons, namely:—
- (a) the Secretary, Department of Urban Development - Chairman
 - (b) one expert from State Department of Environment - Member
 - (c) one expert from State Pollution Control Board or
Pollution Control Committee - Member
 - (d) one expert from Urban Local Body - Member
 - (e) one expert from Non-Governmental Organisation - Member
 - (f) one expert from the field of Industry - Member and
 - (g) one expert from the field of academic institution - Member
- (3) The State Level Advisory Body shall meet at least once in a year and may invite experts, if it considers necessary.

12. Annual Reports.—

- (1) each State Pollution Control Board or Pollution Control Committee shall prepare and submit the annual report to the Central Pollution Control Board on the implementation of these rules by the 30th day of September of each year;
- (2) the Central Pollution Control Board shall prepare a consolidated annual report on the use and management of plastic waste and forward it to the Central Government along with its recommendations before the 30th day of December each year.

ANNEXURE

(See rule 7)

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

7.	IS/ISO 16929: 2002 Plastics-Determination of degree of disintegration of plastic materials under defined composting conditions in a pilot - scale test
8.	IS/ISO 17556: 2003 Plastics-Determination of ultimate aerobic biodegradability in soil by measuring the oxygen demand in a Respirometer or the amount of carbon dioxide evolved
9.	IS/ISO 20200:2004 Plastics- Determination of degree of disintegration of plastic materials under simulated composting conditions in a laboratory - scale test

¹FORM 1

(See rule 9)

**APPLICATION FOR REGISTRATION OF A UNIT FOR
THE MANUFACTURING OF PLASTIC CARRY BAGS,
MULTILAYERED PLASTIC POUCH OR SACHET**

From:

.....

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

To

The Member Secretary,

.....Pollution Control Board/Pollution Control Committee

.....

.....

Sir,

I/We hereby apply for registration under rule 9 of the Plastic Waste (Management and Handling) Rules, 2011

PART A GENERAL		
1. (a)	Name and location of the unit	
(b)	Address of the unit	
(c)	Registration required for manufacturing of: (i) Carry bags (ii) Multilayered plastics pouch or sachet	
(d)	Manufacturing capacity	
(e)	In case of renewal, previous registration number and date of registration	
2.	Is the unit registered with the District Industries Centre (DIC)/Development Commissioner, Small Scale Industries (DCSSI) of the State Government/ Union territory? If yes, attach a copy.	

1. Subs. by S.O. 1527(E), dated 2nd July, 2011, for Form 1 (w.e.f. 2-7-2011).

3. (a)	Total capital invested on the project	
(b)	Year of commencement of production	
4. (a)	List and quantum of products and by-products	
(b)	List and quantum of raw materials used	
5.	Furnish a flow diagram of manufacturing process showing input and output in terms of products and waste generated including for captive power generation and water.	
6.	Thickness of carry bags to be manufactured	
7.	Status of compliance with these rules	

PART B**PERTAINING TO LIQUID EFFLUENT AND GASEOUS EMISSIONS**

8.	(a) Does the unit have a valid consent under the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974)? If yes, attach a copy	
	(b) Does the unit have a valid consent under the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981)? • If yes, attach a copy	

PART C**PERTAINING TO WASTE**

9.	Solid Wastes: (a) Total quantum of waste generated (b) Mode of storage within the plant (c) Provision made for disposal of wastes	
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.....
Name and Signature

.....
Designation

Date.....

Place.....

FORM 2

(See rule 9)

**APPLICATION FORM FOR REGISTRATION OF FACILITIES
POSSESSING ENVIRONMENTALLY SOUND MANAGEMENT
PRACTICES FOR RECYCLING PLASTIC WASTE**

1.	Name and Address of the unit			
2.	Contact person with designation, Tel./Fax/e-mail			
3.	Date Commissioned			
4.	No. of workers (including contract labour)			
5.	Consents Validity	(a) Water (Prevention & Control of Pollution) Act, 1974; Valid up to _____ (b) Air (Prevention & Control of Pollution) Act, 1981; Valid up to _____		
6.	Authorization validity			
7.	Manufacturing Process	Please attach a flow diagram of the manufacturing process flow diagram for each product.		
8.	Products and installed capacity of production (MTA)	Products		Installed capacity
9.	Products manufactured during the last three years (as applicable)	Year	Product	Quantity
10.	Raw material consumed during the last three years (as applicable)	Year	Product	Quantity
11.	Water consumption	Industrial _____ m ³ /day Domestic _____ m ³ /day		
Date until which water cess has been paid (if applicable)				

	Waste water generation as per consent_____m ³ /day	Actual waste water generated (average of last 3 months) Industrial_____m ³ /day Domestic_____m ³ /day			
	Waste water treatment (provide flow diagram of the treatment scheme)	Industrial Domestic			
	Waste water discharge	Quantity_____m ³ /day Location_____ Analysis of treated waste water for pH, BOD, COD, SS, O&G, any other parameter stipulated by SPCB/PCC (attach details)			
12.	Air Pollution Control				
13.	(a) Provide a flow diagram for emission control system(s) installed for each processing unit, utilities etc.				
	(b) Details for facilities provided for control of fugitive emissions due to material handling, process, utilities etc.				
	(c) Fuel consumption	Fuel	Qty per day/month		
		(i)			
		(ii)			
	(d) Stack emission monitoring	Stack attached to	Emission (SPM, SO ₂ , NO _x , etc.) mg/Nm ³		
		(i)			
		(ii)			
	(e) Ambient air quality	Location Results µg/m ³	Parameters SPM, SO ₂ , NO _x , etc.) µg/m ³		
		(i)			
		(ii)			
	Waste Management:	Sl. No.	Type	Category	Qty.
	(a) Waste generation in processing plastic-waste	(i)			
(ii)					
(iii)					
(b) Waste Collection and transportation (attach details)					

	(c) Waste Disposal details	SL No.	Type	Category	Qty
		(i)			
		(ii)			
	(d) Provide details of the disposal facility, whether the facility is authorized by SPCB/SPCC				
	(e) Please attach analysis report of characterization of waste generated (including leachate test if applicable)				
14.	Details of plastic waste proposed to be acquired through sale, auction, contract or import, as the case may be, for use as raw material	(i) Name (ii) Quantity required/year			
15.	Occupational safety and health aspects	Please provide details of facilities			
16.	Remarks:				
	Whether the unit has adequate pollution control systems/ equipment to meet the standards of emission/effluent.	If Yes, please furnish details			
	Whether unit is in compliance with conditions laid down in the said rules.	Yes/No			
	Whether conditions exist or are likely to exist of the material being handled/processed posing adverse immediate or delayed impacts on the environment.	Yes/No			
	Whether conditions exist (or are likely to exist) of the material being handled/processed by any means capable of yielding another material (e.g., leachate) which may possess eco-toxicity.	Yes/No			
17.	Any other relevant information				
18.	List of enclosures as per rule				

.....
Name and Signature

.....
Designation

Date.....

Place.....
