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**MINISTRY OF ENVIRONMENT AND FORESTS**

**NOTIFICATION**

**NEW DELHI, THE 20<sup>th</sup> May, 2003**

**S.O. 593(E).**- Whereas the draft of certain rules called the Hazardous Wastes (Management and Handling) Amendment Rules, 2002 was published under the notification of the Government of India in the Ministry of Environment and Forests number S.O. 553(E), dated 21<sup>st</sup> May, 2002 in the Gazette of India, Part-II, Section 3, Sub-section (ii) of the same date inviting objections and suggestions from all persons likely to be affected thereby, before the expiry of the period of sixty days from the date on which copies of the Gazette containing the said notification were made available to the public;

And whereas copies of the said Gazette were made available to the public on the 5<sup>th</sup> day of June, 2002;

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

Now, therefore, in exercise of the powers conferred by sections 6, 8 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Hazardous Wastes (Management and Handling) Rules, 1989, namely:-

1. (1) These rules may be called the Hazardous Wastes (Management and Handling) Amendment Rules, 2003.
- (2) They shall come into force on the date of their publication in the Official Gazette.
2. In the Hazardous Wastes (Management and Handling) Rules, 1989 (herein after referred to as the said rules), in rule 2, after clause (c), the following clauses shall be inserted, namely: -
  - “(d) bio-medical wastes covered under the Bio-Medical Wastes (Management and Handling) Rules, 1998 made under the Act;
  - (e) wastes covered under the Municipal Solid Wastes (Management and Handling) Rules, 2000 made under the Act; and
  - (f) the lead acid batteries covered under the Batteries (Management and Handling) Rules, 2001 made under the Act.”
3. For rule 3 of the said rules, the following rule shall be substituted, namely:-
  - '3. Definitions - In these rules, unless the context otherwise requires, -
    - (1) “Act” means the Environment (Protection) Act, 1986 (29 of 1986);

- (2) “applicant” means a person or an organisation that applies, in Form 1, for granting of authorisation to perform specific activities connected with handling of hazardous wastes;
- (3) “auction” means bulk sale of wastes by invitation of tenders or auction, contract or negotiation by individual(s), companies or Government departments;
- (4) “auctioneer” means a person or an organisation that auctions wastes;
- (5) “authorisation” means permission for collection, transport, treatment, reception, storage and disposal of hazardous wastes, granted by the competent authority in Form 2;
- (6) “authorised person” means a person or an organisation authorised by the competent authority;
- (7) “Central Pollution Control Board” means the Central Board constituted under sub-section (1) of section 3 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974);
- (8) “disposal” means deposit, treatment, recycling and recovery of any hazardous wastes;
- (9) “export” with its grammatical variations and cognate expressions, means taking out of India to a place outside India:
- (10) “exporter” means any person under the jurisdiction of the exporting country who exports hazardous wastes and the exporting country itself, who exports hazardous wastes;
- (11) “environmentally sound management of hazardous wastes” means taking all steps required to ensure that the hazardous wastes are managed in a manner which will protect health and the environment against the adverse effects which may result from such wastes;
- (12) “facility” means any location wherein the processes incidental to the waste generation, collection, reception, treatment, storage and disposal are carried out;
- (13) “form” means a Form appended to these rules;
- (14) “hazardous waste” means any waste which by reason of any of its physical, chemical, reactive, toxic, flammable, explosive or corrosive characteristics causes danger or is likely to cause danger to health or environment, whether alone or when in contact with other wastes or substances, and shall include-
  - (a) wastes listed in column (3) of Schedule-1;
  - (b) wastes having constituents listed in Schedule -2 if their concentration is equal to or more than the limit indicated in the said Schedule; and
  - (c) wastes listed in Lists ‘A’ and ‘B’ of Schedule -3 (Part-A) applicable only in case(s) of import or export of hazardous wastes in accordance with rules 12,

13 and 14 if they possess any of the hazardous characteristics listed in Part-B of Schedule 3”.

Explanation: For the purposes of this clause, -

- (i) all wastes mentioned in column (3) of Schedule-1 are hazardous wastes irrespective of concentration limits given in Schedule-2 except as otherwise indicated and Schedule-2 shall be applicable only for wastes or waste constituents not covered under column (3) of Schedule -1;
  - (ii) Schedule-3 shall be applicable only in case(s) of import or export;
- (15) “hazardous wastes site” means a place for collection, reception, treatment, storage and disposal of hazardous wastes which has been duly approved by the competent authority;
  - (16) “illegal traffic” means any transboundary movement of hazardous wastes as specified in rule 15;
  - (17) “import” with its grammatical variations and cognate expressions, means bringing into India from a place outside India;
  - (18) “importer” means an occupier or any person who imports hazardous wastes;
  - (19) “manifest” means transporting document(s) prepared and signed by the occupier in accordance with rule 7;
  - (20) “non-ferrous metal wastes” means wastes listed in Schedule 4;
  - (21) “operator of facility” means a person who owns or operates a facility for collection, reception, treatment, storage or disposal of hazardous wastes;
  - (22) “recycler” means an occupier who procures and processes wastes for recovery;
  - (23) "recycling of waste oil" means reclamation by way of treatment to separate solids and water from waste oils using methods such as heating, filtering, gravity settling, centrifuging, dehydration, viscosity and specific gravity adjustment;
  - (24) “registered re-refiner or recycler” means a re-refiner or recycler registered for reprocessing wastes with the Ministry of Environment and Forests or the Central Pollution Control Board, as the case may be, for reprocessing wastes;
  - (25) "re-refining of used oil" means applying a process to the material composed of used oil so as to produce high quality base stock for further manufacture of lubricants or for other petroleum products by blending or any other process;
  - (26) “schedule” means a Schedule appended to these rules;
  - (27) “State Government” means a State Government and in relation to a Union territory, the Administrator thereof appointed under article 239 of the Constitution;

- (28) "State Pollution Control Board or Committee" means the Board or Committee constituted under sub-section (1) of section 4 of the Water(Prevention and Control of Pollution) Act, 1974 (6 of 1974);
- (29) "storage" means storing hazardous wastes for a temporary period, at the end of which the hazardous wastes is treated and disposed off;
- (30) "transboundary movement" means any movement of hazardous waste or other wastes from an area under the national jurisdiction of one country to or through an area under the national jurisdiction of another country or to or through an area not under the national jurisdiction of any country, provided at least two countries are involved in the movement;
- (31) "transport" means off-site movement of hazardous waste by air, rail, road or water;
- (32) "transporter" means a person engaged in the off-site transportation of hazardous waste by air, rail, road or water;
- (33) "treatment" means a method, technique or process, designed to change the physical, chemical or biological characteristics or composition of any hazardous waste so as to render such wastes harmless;
- (34) "used oil" means any oil -
- (i) derived from crude oil or mixtures containing synthetic oil including used engine oil, gear oil, hydraulic oil, turbine oil, compressor oil, industrial gear oil, heat transfer oil, transformer oil, spent oil and their tank bottom sludges; and
  - (ii) suitable for re-refining if it meets the specifications laid down in Schedule 5, but does not include waste oil;
- (35) "waste oil" means any oil -
- (i) which includes spills of crude oil, emulsions, tank bottom sludge and slop oil generated from petroleum refineries, installations or ships; and
  - (ii) is unsuitable for re-refining, but can be used as fuel in furnaces if it meets the specifications laid down in Schedule 6;
- (36) words and expressions used in these rules and not defined but defined in the Act shall have the meanings respectively assigned to them in the Act.'

4. In rule 4B of the said rules, for the word and figure "Schedule 4", the word and figure "Schedule 7" shall be substituted.

5. In rule 5 of the said rules, -

- (a) for sub-rule (2), the following shall be substituted, namely:-

“(2) Every occupier handling, or a recycler recycling, hazardous wastes shall make an application in Form 1 to the Member-Secretary, State Pollution Control Board or Committee, as the case may be or any officer designated by the State Pollution Control Board or Committee for the grant of authorization for any of the said activities:

Provided that an occupier or a recycler not having a hazardous wastes treatment and disposal facility of his own and is operating in an area under the jurisdiction assigned by the State Pollution Control Board or Committee, as the case may be, for a common Treatment, Storage and Disposal Facility (TSDF) shall become a member of this facility and send his waste to this facility to ensure proper treatment and disposal of hazardous wastes generated failing which the authorization granted to the said occupier or recycler in accordance with this sub-rule may be cancelled after giving a reasonable opportunity to such occupier or recycler, as the case may be, of being heard or shall not to be granted by the State Pollution Control Board or Committee, as the case may be.”;

(b) for sub-rule (3), the following sub-rule be substituted, namely: -

“(3) Any person who intends to be an operator of a facility for the collection, reception, treatment, transport, storage and disposal of hazardous wastes, shall make an application in Form 1 to the Member-Secretary, State Pollution Control Board or Committee for the grant of authorization for all or any of the above activities specified in this rule.”;

(c) in sub-rule (6), for clause(i), the following clause shall be substituted, namely:-

“(i) An authorization granted under this rule shall, unless suspended or cancelled, be in force during the period of its validity as specified by the State Pollution Control Board or Committee from the date of issue or from the date of renewal, as the case may be”;

(d) in sub-rule (8),

(i) for clause (ii), the following clause shall be substituted, namely:-

“on steps taken, by the applicant wherever feasible, for reduction and prevention in the waste generated or for recycling or reuse;”

(ii) clause (iv) shall be omitted;

(e) after sub-rule (8), the following sub-rule shall be inserted, namely:-

“(9) Every State Pollution Control Board or Committee shall maintain a register containing particulars of the conditions imposed under these rules for any disposal of hazardous wastes, on any land or premises and it shall be open for inspection during office hours to any person interested or affected or a person authorized by him in this behalf. The entries in the register shall be considered as proof of grant of authorisation for management and handling of hazardous wastes on such land or premises and the conditions subject to which it was granted.”

6. In rule 7 of the said rules, for sub-rules (4), (5) and (6), the following sub-rules shall be substituted, namely:-

"(4) The occupier shall prepare six copies of the manifest in Form 9 comprising of colour code indicated below (all six copies to be signed by the transporter):

Copy number with colour code	Purpose
1	2
Copy 1 (white)	to be forwarded by the occupier to the State Pollution Control Board or Committee
Copy 2 (yellow)	to be retained by the occupier after taking signature on it from the transporter and rest of the four copies to be carried by the transporter
Copy 3 (pink)	to be retained by the operator of the facility after signature
Copy 4 (orange)	to be returned to the transporter by the operator of facility after accepting waste
Copy 5 (green)	to be returned by the operator of the facility to State Pollution Control Board/Committee after treatment and disposal of wastes
Copy 6 (blue)	to be returned by the operator of the facility to the occupier after treatment and disposal of wastes";

"(5) The occupier shall forward copy number 1 (white) to the State Pollution Control Board or Committee and in case the hazardous waste is likely to be transported through any transit State, the occupier shall prepare an additional copy each for such State and forward the same to the concerned State Pollution Control Board or Committee before he hands over the hazardous waste to the transporter. No transporter shall accept hazardous wastes from an occupier for transport unless it is accompanied by copy numbers 2 to 5 of the manifest. The transporter shall return copy number 2 (yellow) of the manifest signed with date to the occupier as token of receipt of the other four copies of the manifest and retain the remaining four copies to be carried and handed over to respective agencies as specified in sub-rule (4)."

"(6) In case of transport of hazardous wastes to a facility for treatment, storage and disposal existing in a State other than the State where hazardous wastes are generated, the occupier shall obtain 'No Objection Certificate' from the State Pollution Control Board or Committee of the concerned State or Union territory Administration where the facility is existing".

7. For rule 8 of the said rules, the following rule shall be substituted, namely:-

"8. Disposal sites:-

- (1) The occupier or operator of a facility or any association of occupiers shall be jointly and severally responsible for identifying sites for establishing the facility for treatment, storage and disposal of hazardous wastes.
- (2) The State Government, operator of a facility or any association of occupiers shall jointly and severally be responsible for, and identify sites for common facility for treatment, storage and disposal of hazardous wastes in the State.
- (3) The operator of a facility, occupier or any association of occupiers shall undertake an environmental impact assessment (EIA) of the selected site(s) and shall submit the EIA report to the State Pollution Control Board or Committee.
- (4) The State Pollution Control Board or Committee shall on being satisfied with the EIA report, cause a public notice for conducting a public hearing as per the procedure contained in the Environment Impact Assessment Notification, 1994 published vide S.O. 60(E) dated the 27<sup>th</sup> January, 1994 as amended from time to time.
- (5) The State Pollution Control Board or Committee shall forward to the State Government or Union territory Administration, as the case may be the project report including EIA report and details of public hearing along with its recommendations within a period of 30 days from the last date of public hearing.
- (6) The State Government shall complete the assessment within a period of thirty days from the date of receipt of the documents mentioned in sub-rule (5) and convey the decision of its approval of site(s) or otherwise within 30 days thereafter to the concerned operator of the facility, occupier or any association of occupiers.
- (7) After approval of the site or sites, the State Government shall acquire the site(s) or inform the occupier or any operator of facility, or any association of occupiers to acquire the site(s) for setting up the facility for treatment, storage and disposal of hazardous wastes. The State Government shall simultaneously notify such sites(s). The State Government shall also compile and publish periodically an inventory of such hazardous wastes disposal sites and facilities;
- (8) Setting up of an on-site facility for treatment, storage and disposal of hazardous wastes for captive use shall be governed by the authorisation procedure laid down in rule 5".

8. In rule 9 of the said rules, after sub-rule(2), the following sub-rule shall be inserted, namely:-

"(3) The State Pollution Control Board or Committee shall prepare an inventory of hazardous wastes as nearly as possible to Form 4 within its jurisdiction and compile other related information like treatment and disposal of hazardous wastes based on the returns filed by respective occupier and operator of facility as per sub-rule(2)."

9. For rule 12 of the said rules, the following rule shall be substituted, namely:-

"12. Import and export of hazardous wastes for recycling and reuse.

- (1) Save as otherwise provided, no person shall import or export hazardous wastes or substances containing or contaminated with such hazardous wastes as specified in Schedule 8.
- (2) The Ministry of Environment and Forests shall be the nodal Ministry to deal with the trans-boundary movement of hazardous wastes and to grant permission of transit of hazardous wastes through any part of India.
- (3) Import and export of hazardous wastes shall be permitted as raw material for recycling or reuse.
- (4) The authorities mentioned in column 2 of Schedule 7 shall be responsible for regulation of export and import of hazardous wastes.
- (5) Any occupier importing or exporting hazardous wastes shall provide detailed information in Form 7A to the Customs authorities.
- (6) Any occupier importing or exporting hazardous wastes shall comply with the articles of the Basel Convention to which the Central Government is a signatory.
- (7) In case of any dispute as to the grant of permission to import or export of hazardous wastes, the matter shall be referred to the Central Government for a decision."

10. In rule 13 of the said rules, -

- (a) for sub-rule (1), the following sub-rule shall be substituted, namely:-

"(1) Every occupier seeking to import hazardous wastes shall apply to the State Pollution Control Board or Committee at least 120 days in advance of the intended date of commencement of the shipment in Form 6.";

- (b) in sub-rule (3), clause (e) shall be omitted;

- (c) after sub-rule (8), the following sub-rule shall be inserted, namely:-

"(9) An occupier importing hazardous wastes listed under an Open General Licence of the Directorate General of Foreign Trade shall register himself with the Ministry of Environment and Forests or any other authority or agency such as the Central Pollution Control Board designated by it in accordance with the procedure laid down under rule 19."

11. In rule 15 of the said rules, in sub-rule (2), in clause (ii), the following shall be added at the end, namely: -

"in accordance with the procedure laid down by the State Pollution Control Board or Committee in consultation with Central Pollution Control Board."

12. In rule 16 of the said rules, for sub-rule (2), the following sub-rule shall be substituted, namely:-

"(2) The occupier and operator of a facility shall also be liable to reinstate or restore damaged or destroyed elements of the environment at his cost, failing which the occupier or the operator of a facility, as the case may be, shall be liable to pay the



entire cost of remediation or restoration and pay in advance an amount equal to the cost estimated by the State Pollution Control Board or Committee. Thereafter, the Board or Committee shall plan and cause to be executed the programme for remediation or restoration. The advance paid to State Pollution Control Board or Committee towards the cost of remediation or restoration shall be adjusted once the actual cost of remediation or restoration is finally determined and the remaining amount, if any, shall be recovered from the occupier or the operator of the facility.”

13. In rule 18 of the said rules, after sub-rule (2), the following sub-rule shall be inserted, namely:-

“(3) Every appeal filed under this rule shall be disposed of within a period of sixty days from the date of such filing.”

14. After rule 18 of the said rules, the following rules shall be added, namely:-

“19. Procedure for registration and renewal of registration of recyclers and re-refiners.

- (1) Every person desirous of recycling or re-refining non-ferrous metal wastes as specified in Schedule 4 or used oil or waste oil shall register himself with the Central Pollution control Board:

Provided that no owner or occupier of an industrial unit having captive recycling of non-ferrous metals or recycling of waste oil or re-refining of used oil facility shall be required to register under these rules

Provided further that no person who has registered with the Ministry of Environment & Forests before the commencement of the Hazardous Wastes (Management and Handling) Amendment rules, 2003, shall, unless such registration is cancelled or ceases to operate under sub-rule (3) of rule 21, be required to register under this sub-rule as given in the certificate of registration

- (2) Every application for registration under this rule shall be made in Form 11 along with a copy each of the following documents to the Central Pollution Control Board for the grant of such registration or renewal:-
- (a) letter of consents granted under the Water(Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981;
  - (b) authorisation granted under rule 5 of these rules;
  - (c) certificate of registration with District Industries Centre;
  - (d) proof of installed capacity of plant and machinery issued by either State Pollution Control Board or Committee or the District Industries Centre; and
  - (e) report from the State Pollution Control Board or Committee regarding proof of compliance of effluent and emission standards and treatment and disposal of hazardous wastes as stipulated by that Board or Committee.

- (3) If the Central Pollution Control Board is satisfied that the recyclers or re-refiners possess requisite facilities, technical capabilities, and equipment to recycle or re-refine the wastes and dispose of the hazardous wastes generated, it shall grant a certificate of registration to such recycler or re-refiner, as the case may be.
- (4) The Central Pollution Control Board shall dispose of the application for registration within 120 days of receipt of such application with complete details.
- (5) The certificate of registration granted under sub-rule (3) shall be valid for a period of two years from the date of its issue unless suspended or cancelled earlier.
- (6) Every application for renewal of registration of a certificate of registration granted under sub-rule (3) shall be made in Form 11 alongwith the documents mentioned in sub-rule (2) atleast two months before the expiry of the period of validity of such certificate. The Central Pollution Control Board shall renew the registration of the recycler or re-refinder granted under sub-rule (3) after examining each case on merit.
- (7) The Central Pollution Control Board may, after giving reasonable opportunity to the applicant of being heard, by order, refuse to grant certificate of registration of renewal.
- (8) The Central Pollution Control Board may cancel or suspend a registration or renewal granted under these rules, if in its opinion the registered recycler has failed to comply with any of the conditions of registration, or with any provisions of the Act or rules made thereunder after giving him an opportunity of being heard and after recording the reasons therefor;
- (9) An appeal against any order of suspension or cancellation or refusal of registration or renewal passed by Central Pollution Control Board shall lie with the Secretary, Ministry of Environment and Forests (hereafter referred to as the appellate authority)
- (10) The memorandum of appeal under sub-rule (9) shall be in writing and shall be accompanied with a copy of the order appealed against and shall be presented within 30 days of passing of the order:

Provided that the appellate authority may allow a memorandum of appeal to be filed after the expiry of the said period of thirty days, but in no case later than 45 days if the appellate authority is satisfied that there exists sufficient cause for not preferring the appeal in time.

- (11) On receipt of a memorandum of appeal under sub-rule (9) the appellate authority shall within ninety days from the date of receipt of such memorandum of appeal and after giving the appellant an opportunity of being heard pass such order as he may deem fit.
- (12) In case of units registered with the Ministry of Environment and Forests or the Central Pollution Control Board for items placed under "free category" in Notification nos. 22(RE-99) 1997-2002 dated 30<sup>th</sup> July, 1999; 26((RE-99)

1997-2002 dated 10<sup>th</sup> September, 1999; 38 (RE-2000)1997-2002 dated 16<sup>th</sup> October, 2000 and 6(RE 2001) dated 31<sup>st</sup> March, 2001 issued by the Directorate General of Foreign Trade and other similar notifications issued based on the advice of Ministry of Environment and Forests, prior import permission from that Ministry shall not be required.

(13) Recyclers and re-refiners registered with the Government of India in the Ministry of Environment and Forests or the Central Pollution Control Board shall maintain a record of wastes purchased, processed and sold and shall file an annual return in Form-12 to the respective State Pollution Control Board or Committee, as the case may be, latest by 31<sup>st</sup> January of every year.

20. Responsibility of waste generator: –

(1) No owner or occupier generating non-ferrous metal waste specified in Schedule 4 or generating used oil or waste oil of ten tons or more per annum shall sell or auction such non-ferrous metal wastes, used oil or waste oil except to a registered re-refiner or recycler, as the case may be, who undertakes to re-refine or recycle the waste within the period of validity of his certificate of registration.

(2) Any waste oil which does not meet the specifications laid down in Schedule 6 shall not be auctioned or sold but shall be disposed of in hazardous wastes incinerator installed with air pollution control devices and meeting emission standards.

(3) The persons generating waste or auctioneers shall ensure that at the time of auction or sale, the period of validity of the certificate of registration of the registered re-refiner or recycler is sufficient to reprocess the quantity of wastes being sold or auctioned to him.

(4) The waste generators and auctioneers shall ensure that the wastes are not allowed to be stored for more than ninety days and shall maintain a record of auctions and sale of such wastes and make these records available to the State Pollution Control Board or Committee for inspections.

(5) The waste generators and auctioneers shall file annual returns of auction and sale in Form-13 latest by 31<sup>st</sup> day of January of every year to the respective State Pollution Control Board or Committee.

21. Technology and standards for re-refining or recycling:-

(1) Re-refiners and recyclers shall use only environmentally sound technologies while recycling and re-refining non-ferrous metal wastes or used oil or waste oil. In case of used oil, re-refiners using acid clay process or modified acid clay process shall switch over within six months from the date of commencement of the Hazardous Wastes (Management and Handling) Amendment Rules, 2003 to other environmentally sound technologies as under:-

- (a) Vacuum distillation with clay treatment;
- (b) Vacuum distillation with hydrotreating;
- (c) Thin film evaporation process; or
- (d) Any other technology approved by the Ministry of Environment and Forests

(2) The re-refiners and recyclers registered with the Ministry of Environment and Forests or the Central Pollution Control Board in accordance with the procedure laid down in rule 19 shall file a compliance report of having adopted one of the technologies mentioned in sub-rule (1) within six months from the date of commencement of the Hazardous Wastes (Management and Handling) Amendment Rules, 2003.

(3) Notwithstanding anything contained in a certificate of registration granted to a recycler or re-refiner, such registration with the Ministry of Environment and Forests shall cease to be valid if he fails to comply with sub-rule (1).

(4) The State Pollution Control Board or Committee shall inspect the re-refining and recycling units within three months of the expiry of the six months period referred to in sub-rule(1) and submit a compliance report to the Central Pollution Control Board which shall compile such information and furnish the same to the Ministry of Environment and Forests on a regular basis.

(5) The Ministry of Environment and Forests shall notify from time-to-time specifications and standards to be followed by recyclers and re-refiners."

15. In the said rules, for Schedules 1 to 4, the following Schedules shall be substituted, namely:-

**"SCHEDULE - 1**  
[See rule 3(14)(a)]  
**List of Hazardous Wastes**

S.No.	Processes	Hazardous Wastes
1	2	3
1.	Petrochemical processes and pyrolytic operations	1.1 Furnace/reactor residue and debris* 1.2 Tarry residues 1.3 Oily sludge emulsion 1.4 Organic residues 1.5 Residues from alkali wash of fuels 1.6 Still bottoms from distillation process 1.7 Spent catalyst and molecular sieves 1.8 Slop oil from wastewater 1.9 ETP sludge containing hazardous constituents
2.	Drilling operation for oil and gas production	2.1 Drill cuttings containing oil 2.2 Sludge containing oil 2.3 Drilling mud and other drilling wastes*
3.	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.1 Oil-containing cargo residue, washing water and sludge 3.2 Chemical-containing cargo residue and sludge 3.3 Sludge and filters contaminated with oil 3.4 Ballast water containing oil from ships.
4.	Petroleum refining/re-refining of used oil/recycling of waste oil	4.1 Oily sludge/emulsion 4.2 Spent catalyst 4.3 Slop oil 4.4 Organic residues from process 4.5 Chemical sludge from waste water treatment 4.6 Spent clay containing oil
5.	Industrial operations using mineral/synthetic oil as lubricant in hydraulic systems or other applications	5.1 Used/spent oil 5.2 Wastes/residues containing oil

\*Unless proved otherwise by the occupier based on sampling and analysis carried out by a laboratory recognized under the Act not to contain any of the constituents mentioned in Schedule 2 to the extent of concentration limits specified therein.

<b>S.No.</b>	<b>Processes</b>	<b>Hazardous Wastes</b>
<b>1</b>	<b>2</b>	<b>3</b>
6.	Secondary production and/or use of zinc	6.1 Sludge and filter press cake arising out of zinc sulphate production 6.2 Zinc fines/dust/ash/skimmings (dispersible form) 6.3 Other residues from processing of zinc ash/skimmings 6.4 Flue gas dust and other particulates*
7.	Primary production of zinc/lead/copper and other non-ferrous metals except aluminium	7.1 Flue gas dust from roasting* 7.2 Process residues 7.2 Arsenic-bearing sludge 7.3 Metal bearing sludge and residue including jarosite 7.4 Sludge from ETP and scrubbers
8.	Secondary production of copper	8.1 Spent electrolytic solutions 8.2 Sludges and filter cakes 8.3 Flue gas dust and other particulates*
9.	Secondary production of lead	9.1 Lead slag/Lead bearing residues 9.2 Lead ash/particulate from flue gas
10.	Production and/or use of cadmium and arsenic and their compounds	10.1 Residues containing cadmium and arsenic
11.	Production of primary and secondary aluminium	11.1 Sludges from gas treatment 11.2 Cathode residues including pot lining wastes 11.3 Tar containing wastes 11.4 Flue gas dust and other particulates* 11.5 Wastes from treatment of salt slags and black drosses*
12.	Metal surface treatment, such as etching, staining, polishing, galvanising, cleaning, degreasing, plating, etc.	12.1 Acid residues 12.2 Alkali residues 12.3 Spent bath/sludge containing sulphide, cyanide and toxic metals 12.4 Sludge from bath containing organic solvents 12.5 Phosphate sludge 12.6 Sludge from staining bath 12.7 Copper etching residues 12.8 Plating metal sludge 12.9 Chemical sludge from waste water treatment

\* Unless proved otherwise by the occupier based on sampling and analysis carried out by a laboratory recognized under the Act not to contain any of the constituents mentioned in Schedule 2 to the extent of concentration limits specified therein.

<b>S.No.</b>	<b>Processes</b>	<b>Hazardous Wastes</b>
<b>1</b>	<b>2</b>	<b>3</b>
13.	Production of iron and steel including other ferrous alloys (electric furnaces; steel rolling and finishing mills; Coke oven and by product plant)	13.1 Process dust * 13.2 Sludge from acid recovery unit 13.3 Benzol acid sludge 13.4 Decanter tank tar sludge 13.5 Tar storage tank residue
14.	Hardening of steel	14.1 Cyanide -, nitrate-, or nitrite-containing sludge 14.2 Spent hardening salt
15.	Production of asbestos or asbestos-containing materials	15.1 Asbestos-containing residues 15.2 Discarded asbestos 15.3 Dust/particulates from exhaust gas treatment.
16.	Production of caustic soda and chlorine	16.1 Mercury bearing sludge 16.2 Residue/sludges and filter cakes* 16.3 Brine sludge containing mercury
17.	Production of acids	17.1 Residues, dusts or filter cakes* 17.2 Spent catalyst*
18.	Production of nitrogenous and complex fertilizers	18.1 Spent catalyst* 18.2 Spent carbon* 18.3 Sludge/residue containing arsenic 18.4 Chromium sludge from water cooling tower 18.5 Chemical sludge from waste water treatment
19.	Production of phenol	19.1 Residue/sludge containing phenol
20.	Production and/or industrial use of solvents	20.1 Contaminated aromatic, aliphatic or naphthenic solvents not fit for originally intended use 20.2 Spent solvents 20.3 Distillation residues

\* Unless proved otherwise by the occupier based on sampling and analysis carried out by a laboratory recognized under the Act not to contain any of the constituents mentioned in Schedule 2 to the extent of concentration limits specified therein.

<b>S.No.</b>	<b>Processes</b>	<b>Hazardous Wastes</b>
<b>1</b>	<b>2</b>	<b>3</b>
21.	Production and/or industrial use of paints, pigments, lacquers, varnishes, plastics and inks	21.1 Wastes and residues 21.2 Fillers residues
22.	Production of plastic raw materials	22.1 Residues of additives used in plastics manufacture like dyestuffs, stabilizers, flame retardants, etc. 22.2 Residues of plasticisers 22.3 Residues from vinylchloride monomer production 22.4 Residues from acrylonitrile production 22.5 Non-polymerised residues
23.	Production and/or industrial use of glues, cements, adhesive and resins	23.1 Wastes/residues (not made with vegetable or animal materials)*
24.	Production of canvas and textiles	24.1 Textile chemical residues* 24.2 Chemical sludge from waste water treatment
25.	Industrial production and formulation of wood preservatives	25.1 Chemical residues 25.2 Residues from wood alkali bath
26.	Production or industrial use of synthetic dyes, dye-intermediates and pigments	26.1 Process waste sludge/residues containing acid or other toxic metals or organic complexes 26.2 Chemical sludge from waste water treatment 26.3 Dust from air filtration system
27.	Production or industrial use of materials made with organo-silicone compounds	27.1 Silicone-containing residues 27.2 Silicone oil residues
28.	Production/formulation of drugs/ pharmaceuticals	28.1 Residues and wastes* 28.2 Spent catalyst / spent carbon 28.2 Off specification products 28.3 Date-expired, discarded and off-specification drugs/ medicines 28.4 Spent mother liquor 28.5 Spent organic solvents
29.	Production, use and formulation of pesticides including stock-piles	29.1 Wastes/residues containing pesticides 29.2 Chemical sludge from waste water treatment 29.3 Date-expired and off-specification pesticides



30. Leather tanneries	30.1 Chromium bearing residue and sludge 30.2 Chemical sludge from waste water treatment
31. Electronic Industry	31.1 Residues and wastes* 31.2 Spent etching chemicals and solvents
32. Pulp & Paper Industry	32.1 Spent chemicals 32.2 Corrosive wastes arising from use of strong acid and bases 32.3 Sludge containing adsorbable organic halides
33. Disposal of barrels / containers used for handling of hazardous wastes / chemicals	33.1 Chemical-containing residue from decontamination and disposal 33.2 Sludge from treatment of waste water arising out of cleaning / disposal of barrels / containers 33.3 Discarded containers / barrels / liners used for hazardous wastes/chemicals
34. Purification processes for air and water	34.1 Flue gas cleaning residue* 34.2 Toxic metal-containing residue from used-ion exchange material in water purification 34.3 Chemical sludge from waste water treatment 34.4 Chemical sludge, oil and grease skimming residues from common industrial effluent treatment plants (CETPs) and industry-specific effluent treatment plants (ETPs) 34.5 Chromium sludge from cooling water treatment
35. Purification process for organic compounds/solvents	35.1 Filters and filter material which have organic liquids in them, e.g. mineral oil, synthetic oil and organic chlorine compounds 35.2 Spent catalyst* 35.3 Spent carbon*
36. Waste treatment processes, e.g. incineration, distillation, separation and concentration techniques	36.1 Sludge from wet scrubbers 36.2 Ash from incineration of hazardous waste, flue gas cleaning residues 36.3 Spent acid from batteries 36.4 Distillation residues from contaminated organic solvents

\* Unless proved otherwise by the occupier based on sampling and analysis carried out by a laboratory recognized under the Act not to contain any of the constituents mentioned in Schedule 2 to the extent of concentration limits specified therein.

**Schedule - 2**  
[See rule 3(14)(b)]

**List of Wastes Constituents with Concentration Limits\***

**Class A**

Concentration limit:  $\geq 50$  mg/kg

- A1 Antimony and antimony compounds
- A2 Arsenic and arsenic compounds
- A3 Beryllium and beryllium compounds
- A4 Cadmium and cadmium compounds
- A5 Chromium (VI) compounds
- A6 Mercury and mercury compounds
- A7 Selenium and selenium compounds
- A8 Tellurium and tellurium compounds
- A9 Thallium and thallium compounds
- A10 Inorganic cyanide compounds
- A11 Metal carbonyls
- A12 Napthalene
- A13 Anthracene
- A14 Phenanthrene
- A15 Chrysene, benzo (a) anthracene, fluoranthene, benzo (a) pyrene, benzo (K) fluoranthene, indeno (1, 2, 3-cd) pyrene and benzo (ghi) perylene
- A16 halogenated compounds of aromatic rings, e.g. polychlorinated biphenyls, polychloroterphenyls and their derivatives
- A17 Halogenated aromatic compounds
- A18 Benzene
- A19 Organo-chlorine pesticides
- A20 Organo-tin Compounds

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\*Waste constituents and their concentration limits given in this list are based on BAGA (the Netherlands Environment Protection Agency) List of Hazardous Substances. In order to decide whether a specific material listed above is hazardous or not, following points be taken into consideration:

- (i) If a component of the waste appears in one of the five risk classes listed above (A,B,C,D or E) and the concentration of the component is equal to or more than the limit for the relevant risks class, the material is then classified as hazardous waste.
- (ii) If a chemical compound containing a hazardous constituent is present in the waste, the concentration limit does not apply to the compound, but only to the hazardous constituent itself.
- (iii) If multiple hazardous constituents from the same class are present in the waste, the concentrations are added together.
- (iv) If multiple hazardous constituents from different classes are present in the waste, the lowest concentration limit corresponding to the constituent(s) applies.
- (v) For substances in water solution, the concentration limit for dry matter must be used. If the dry matter content is less than 0.1% by weight, the concentration limit, reduced by a factor of one thousand, applies to the solution.

**Class B**

Concentration limit:  $\geq 5,000$  mg/kg

- B1 Chromium (III) compounds
- B2 Cobalt compounds
- B3 Copper compounds
- B4 Lead and lead compounds
- B5 Molybdenum compounds
- B6 Nickel compounds
- B7 Inorganic Tin compounds
- B8 Vanadium compounds
- B9 Tungsten compounds
- B10 Silver compounds
- B11 Halogenated aliphatic compounds
- B12 Organo phosphorus compounds
- B13 Organic peroxides
- B14 Organic nitro-and nitroso-compounds
- B15 Organic azo-and azoxy compounds
- B16 Nitriles
- B17 Amines
- B18 (Iso-and thio-) cyanates
- B19 Phenol and phenolic compounds
- B20 Mercaptans
- B21 Asbestos
- B22 Halogen-silanes
- B23 Hydrazine (s)
- B24 Fluorine
- B25 Chlorine
- B26 Bromine
- B27 White and red phosphorus
- B28 Ferro-silicate and alloys
- B29 Manganese-silicate
- B30 Halogen-containing compounds which produce acidic vapours on contact with humid air or water, e.g. silicon tetrachloride, aluminium chloride, titanium tetrachloride

### **Class C**

Concentration limit;  $\geq 20,000$  mg/kg

- C1 Ammonia and ammonium compounds
- C2 Inorganic peroxides
- C3 Barium compounds except barium sulphate
- C4 Fluorine compounds
- C5 Phosphate compounds except phosphates of aluminium, calcium and iron
- C6 Bromates, (hypo-bromites)
- C7 Chlorates, (hypo-chlorites)
- C8 Aromatic compounds other than those listed under A12 to A18
- C9 Organic silicone compounds

- C10 Organic sulphur compounds
- C11 Iodates
- C12 Nitrates, nitrites
- C13 Sulphides
- C14 Zinc compounds
- C15 Salts of per-acids
- C16 Acid amides
- C17 Acid anhydrides

**Class D**

Concentration limit:  $\geq 50,000$  mg/kg

- D1 Total Sulphur
- D2 Inorganic acids
- D3 Metal hydrogen sulphates
- D4 Oxides and hydroxides except those of hydrogen, carbon, silicon, iron, aluminum, titanium, manganese, magnesium, calcium
- D5 Total hydrocarbons other than those listed under A12 to A18
- D6 Organic oxygen compounds
- D7 Organic nitrogen compounds expressed as nitrogen
- D8 Nitrides
- D9 Hydrides

**Class E**

Regardless of concentration limit; Classified as hazardous wastes at all concentrations

- E1 Flammable substances
- E2 Substances which generate hazardous quantities of flammable gases on contact with water or damp air

### Schedule - 3

[See rules 3 (14) (c) & 12(a)]

#### Part A: Lists of Wastes Applicable for Import and Export List

Basel No.	Description of Wastes	Annex-I**	Annex - III#	OECD No.	Customs Code
<b>AI</b>	<b>Metal and Metal bearing wastes</b>				
A1010	Metal waste and waste consisting of alloys of the following metals, but excluding such wastes specified on list B (corresponding mirror entry under List B in brackets)				
	- Antimony	Y27	6.1, 11, 12	AA070	ex 2620.90
	- Cadmium	Y26	6.1, 11, 12	AA070	ex 2620.90
	- Tellurium	Y28	6.1, 11, 12	AA070	ex 2620.90
	- Lead	Y31	6.1, 11, 12		
A1020	Waste having as constituents or contaminants, excluding metal wastes in massive form, any of the following:				
	- Cadmium, cadmium compounds. ( see B1020)	Y26	6.1, 11, 12	AA070	ex 2620.90
	- Antimony, antimony compounds. ( see B1020)	Y27			
	- Tellurium, tellurium compounds. ( see B1020)	Y28	6.1, 11, 12	AA070	ex 2620.90
	- Lead, lead compounds. ( see B1020)	Y31	6.1, 11, 12	AA030	ex 2620.20

\*List A given as Annex.VIII of the Basel Convention on Transboundary Movement of Hazardous Wastes and their disposal comprises of wastes characterized as hazardous under Article 1, paragraph 1(a) of the Convention. Inclusion of wastes on this list does not preclude the use of hazard characteristics given in Annex.III of Basel Convention to demonstrate that the wastes are not hazardous. **Above list is modified to the extent that certain waste categories given in List 'A' (Annex VIII) of Basel Convention have been prohibited for import and export under the Environment(Protection) Act, 1986 and are listed separately under Schedule 8 of these Rules. Hazardous wastes in the above list are restricted and cannot be allowed to be imported into the country without DGFT licence.**

\*\*Annex.I of Basel Convention denoting serial no. of the category of wastes to be controlled.

# Annex.III of Basel Convention denoting serial numbers of the hazard characteristics (Part B of this Schedule).

A1040	Wastes having as constituents any of the following: - Metal carbonyls	Y19	6.1, 11, 12		
A1050	Galvanic sludges	Y17	6.1, 12	AA120	
A1060	Wastes Liquors from the pickling of metals.	Y17	6.1, 12	AA130	
A1070	Leaching residues from zinc processing, dusts and sludges such as jarosite, hematite, goethite, etc.	Y23	12	AA140	
A1080	Waste Zinc residues not included on list B containing lead and cadmium in concentrations sufficient to exhibit hazard characteristics indicated in part B of this schedule (see B1080 and B1100)	Y23	4.3, 12	AA020	ex 262019, ex 2620.1, ex 2817
A1090	Ashes from the incineration of insulated copper wire	Y22	12		
A1100	Dust and residues from gas cleaning systems of copper smelters.	Y18, Y22	12		ex 2620.30
A1110	Spent electrolytic solutions from copper electrorefining and electrowinning operations	Y22	12		ex 2620.30
A1120	Wastes sludges, excluding anode slimes, from electrolytic purification systems in copper electrorefining and electrowinning operations.	Y18, Y22	12		ex 2620.30
A1130	Spent etching solutions containing dissolved copper.	Y22	12		ex 3824.90
A1150	Precious metal ash from incineration of printed circuit boards not included on list ' B' (see B-1160)			AA161	ex7112.10

A1160	Waste Lead acid batteries whole or crushed.	Y31	6.1, 11, 12	AA170	
A1170	Unsorted waste batteries excluding mixtures of only List B batteries. Waste batteries not specified on List B containing schedule 2 constituents to an extent to render them hazardous (see B1090)	Y26, Y29, Y31	6.1, 11, 12		ex 8548.10 ex 8548.90
A1180	Waste Electrical and electronic assembles or scrap containing, compounds such as accumulators and other batteries included on list A, mercury-switches, glass from cathode-ray tubes and other activated glass and PCB-capacitors, or contaminated with Schedule 2 constituents (e.g. cadmium, mercury, lead, polychlorinated biphenyl) to an extent that they exhibit hazard characteristics indicated in part B of this Schedule (see B1110)				
<b>A2</b>	<b>Wastes containing principally inorganic constituents, which may contain metals and organic materials</b>				
A2010	Glass waste from cathode ray tubes and other activated glasses	Y31	6.1, 11, 12	AB040	ex 7001.00
A2030	Wastes catalysts but excluding such wastes specified on List B	Y31			
<b>A3</b>	<b>Wastes containing principally organic constituents which may contain metals and inorganic materials</b>				
A3010	Waste from the production or processing of petroleum coke and bitumen	Y11		AC010	ex 2713.90
A3020	Waste mineral oils unfit for their originally intended use	Y8		AC030	2710.00 3823.90

A3050	Wastes from production formulation and use of resins, latex, plasticisers, glues/adhesives excluding such wastes specified in List B (B4020)	Y13	AC090
A3070	Waste phenol, phenol compounds including chlorophenol in the form of liquids or sludges	Y39	AC110
A3080	Waste ethers not including those specified in List B		AC 130
A3120	Fluff: light fraction from shredding		AC190
A3130	Waste organic phosphorus compounds	Y37	AC200
A3140	Waste non-halogenated organic solvents (but excluding such wastes specified on List B)	Y42	AC210
A3160	Waste halogenated or unhalogenated non-aqueous distillation residues arising from organic solvent recovery operations	Y18	AC230
A3170	Waste arising from the production of aliphatic halogenated hydrocarbons (such as chloromethanes, dichloroethane, vinylchloride, vinylidene chloride, allyl chloride and epichlorhydrin)	Y45	AC240
<b>A4</b>	<b>Wastes which may contain either inorganic or organic constituents</b>		
A4010	Wastes from the production and preparation and use of pharmaceutical products but excluding such wastes specified on List B	Y2	ADVISE R010
A4040	Wastes from the manufacture	Y5,	ADVISE



	formulation and use of wood preserving chemicals	Y22, Y24	R030
A4070	Waste from the production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish excluding those specified in List B (B4010)	Y12	ADVISE R070
A4080	Wastes of an explosive nature excluding such wastes specified on List B	Y15	
A4090	Waste acidic or basic solutions excluding those specified in List B(B2120)	Y34Y35	AB110 ADVISE R110
A4100	Wastes from industrial pollution control devices for cleaning of industrial off-gases excluding such wastes specified on List B	Y18	
A4110	Wastes that contain, consist of or are contaminated with any of the following: <ul style="list-style-type: none"> <li>• Any congener of polychlorinated dibenzofuran</li> <li>• Any congener of polychlorinated dibenzodioxin</li> </ul>	Y43	RC010
A4120	Wastes that contain, consist of or are contaminated with peroxides.		
A4130	Waste packages and containers containing any of the constituents mentioned in Schedule 2 to the extent of concentration limits specified therein.		
A4140	Waste consisting of or containing off specification or out-dated chemicals containing any of the constituents mentioned in Schedule 2 to the extent of concentration limits specified	Y3	

therein.

A4150 Waste chemical substances Y14  
arising from research and  
development or teaching  
activities which are not  
identified and/or are new and  
whose effects on human  
health and/or the environment  
are not known

A4160 Spent activated carbon not  
included on List B (B2060)

ex 2803

## LIST-B\*

<b>B1</b>	<b>Metal and metal-bearing wastes</b>		
B1010	Metal and metal-alloy wastes in metallic, non-dispersible form:		
	- Precious metals (gold, silver, platinum)**		
	- Iron and steel scrap**		
	- Nickel scrap****	GA130	750300
	- Aluminum scrap****		
	- Zinc scrap****		
	- Tin scrap****		
	- Tungsten scrap**		
	- Molybdenum scrap***	GA190	ex 810291
	- Tantalum scrap***	GA200	ex 810310
	- Cobalt scrap***	GA220	ex 810510
	- Bismuth scrap***	GA230	ex 810600
	- Titanium scrap***	GA250	ex 810810
	- Zirconium scrap***	GA260	ex 810910
	- Manganese scrap ***	GA280	ex 811100
	- Germanium scrap***	GA310	ex 811230
	- Vanadium scrap ***	GA320	ex 811240
	- Hafnium scrap***	GA330	ex 8112.91
	- Indium scrap***	GA340	ex 8112.91
	- Niobium scrap***	GA350	ex 8112.91
	- Rhenium scrap***	GA360	ex 8112.91
	- Gallium scrap***	GA370	ex 8112.91
	- Magnesium scrap****	GA210	810420
	- Copper scrap*****	GA120	740400
	- Thorium scrap		
	- Rare earths scrap		

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\*List B given as Annex. IX of the Basel Convention on Transboundary Movement of Hazardous Wastes and their Disposal comprises of wastes not covered by Article 1, paragraph 1(a) of the Convention, unless they contain material listed under Annex. I of the Convention to an extent causing them to exhibit Annex. III characteristics. Status of wastes in the above list with regard to their import in the country is indicated in respective footnotes. (for details, refer to ITC-HS Classification (EXIM Policy) brought out by the Directorate General of Foreign Trade, Ministry of Commerce). Other residual and waste products of chemical and allied industries appearing in the above list but not specified in the EXIM Policy are restricted and cannot be allowed to be imported into the country without DGFT licence.

\*\*Import permitted in the country without any licence or restriction.

\*\*\*Restricted, import permitted in the country with DGFT licence only for the purpose of re-processing or reuse.

\*\*\*\*Import of material covered by ISRI code is permitted without licence; for other material, DGFT licence is necessary.

\*\*\*\*\*Import of copper scrap namely copper wire covered under ISRI code "Druid" and Jelly filled copper cables is permitted without a licence to units registered with the Ministry of Environment & Forests.

B1020	Clean, uncontaminated metal scrap, including alloys, in bulk finished form (sheet, plate, beams, rods, etc.) , of:		
	- Antimony scrap*	GA270	ex 8110.00
	- Cadmium scrap*	GA240	ex 8107.10
	- Lead scrap**		
	- Tellurium scrap***		
B1030	Refractory metals containing residues		
B1040	Scrap assemblies from electrical power generation not contaminated with lubricating oil, PCB or PCT to an extent to render them hazardous		
B1050	Mixed non-ferrous metal, heavy fraction scrap, not containing any of the constituents mentioned in Schedule 2 to the extent of concentration limits specified therein		
B1060	Waste tellurium in metallic elemental form including powder		

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\* Restricted, import permitted in the country with DGFT licence only for the purpose of reprocessing or reuse.

\*\*Restricted, import of the following material covered under Battery scrap is permitted in the country with DGFT licence:

- Battery scrap, namely the following: Lead battery plates covered by ISRI, Code word Rails Battery lugs covered by ISRI, Code word Rakes.
- Battery wastes, namely the following: Scrap drained/dry while intact, lead batteries covered by ISRI, Code word Rains, Scrap wet whole intact lead batteries covered by ISRI, Code word Rink, Scrap industrial intact lead cells covered by ISRI Code word Rono, Scrap whole intact industrial lead batteries covered by ISRI, Code word Roper, Edison batteries covered by ISRI, Code word Vaunt.
- Other waste and scrap.

\*\*\*Import permitted in the country without any licence or restriction.

B1070	Waste of copper and copper alloys in dispersible form, unless they contain any of the constituents mentioned in Schedule 2 to the extent of concentration limits specified therein*	ex 2620.30
B1080	Zinc ash and residues including zinc alloys residues in dispersible form unless they contain any of the constituents mentioned in Schedule 2 to the extent of concentration limits specified therein**	ex 2620.10 ex 2620.19 ex 2817.00
B1090	Waste batteries conforming to specification, excluding those made with lead, cadmium or mercury.	ex 8548.10 ex 8548.90
B1100	Metal bearing wastes arising from melting, smelting and refining of metals:	GB
	<ul style="list-style-type: none"> <li>- **Hard Zinc Spelter</li> <li>- **Zinc-containing drosses: <ul style="list-style-type: none"> <li>~ Galvanizing slab zinc top dross (&gt;90% Zn)</li> <li>~ Galvanizing slab zinc bottom dross (&gt;92% Zn)</li> <li>~ Zinc die casting dross (&gt;85% Zn)</li> <li>~ Hot dip galvanizers slab zinc dross (batch) (&gt;92% Zn)</li> <li>~ Zinc skimmings</li> </ul> </li> </ul>	

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- Copper dross containing copper greater than 65% and lead and cadmium equal to or less than 1.25% and 0.1% respectively; spent cleaned metal catalyst containing copper; and Copper reverts, cake and residues containing lead and cadmium equal to or less than 1.25% and 0.1% respectively are allowed for import without DGFT licence to units (actual users) registered with MoEF upto an annual quantity limit indicated in the Registration letter. Copper reverts, cake and residues containing lead and cadmium greater than 1.25% and 0.1% respectively are under restricted category for which import is permitted only against DGFT licence for the purpose of processing or reuse by units registered with MoEF (actual users).

\*\* Zinc ash/skimmings in dispersible form containing zinc more than 65% and lead and cadmium equal to or less than 1.25% and 0.1% respectively and spent cleaned metal catalyst containing zinc are allowed for import without DGFT licence to units registered with MoEF (actual users) upto an annual quantity limit indicated in Registration Letter. Zinc ash and skimmings containing less than 65% zinc and lead and cadmium equal to or more than 1.25% and 0.1% respectively and hard zinc spelter and brass dross containing lead greater than 1.25% are under restricted category for which import is permitted against DGFT licence and only for purpose of processing

<b>or reuse by units registered with MoEF (actual users).</b>			
	- Slags from copper processing for further processing or refining containing arsenic, lead or cadmium unless they contain any of the constituents mentioned in Schedule 2 to the extent of concentration limits specified therein		ex 262030
	- Slags from precious metals processing for further refining.	GB40	ex 2620.90
	- Wastes of refractory linings, including crucibles, originating from copper smelting		
	- Aluminum skimmings (or skims) excluding salt slag	AA50	
	- Tantalum-bearing tin slags with less than 0.5% tin	GB050	ex 2620.90
B1110	Electrical and electronic assemblies	GC	
	- Electronic assemblies consisting only of metals or alloys	GC010	
	- Waste Electrical and electronic assemblies scrap (including printed circuit boards, electronic components and wires) destined for direct reuse and not for recycling or final disposal	GC020	
	- Waste electrical and electronic assemblies scrap (including printed circuit boards) not containing components such as accumulators and other batteries included on list A, mercury-switches, glass from cathode-ray tubes		

and other activated glass and PCB-capacitors, or not contaminated with constituents such as cadmium, mercury, lead, polychlorinated biphenyl) or from which these have been removed, to an extent that they do not possess any of the constituents mentioned in Schedule 2 to the extent of concentration limits specified therein

- Electrical and electronic assemblies (including printed circuit boards, electronic components and wires) destined for direct reuse and not for recycling or final disposal.

B1120 Spent catalysts excluding liquids used as catalysts, containing any of:

Transition metals, excluding waste catalysts (spent catalysts, liquid used catalysts or other catalysts) on list A:

Scandium	Titanium
Vanadium	Chromium
Manganese	Iron
Cobalt	Nickel
Copper	Zinc
Yttrium	Zirconium
Niobium	Molybdenum
Hafnium	Tantalum
Tungsten	Rhenium

Lanthanides (rare earth metals):

Lanthanum	Cerium
Praseodymium	Neodymium
Samarium	Europium
Gadolinium	Terbium
Dysprosium	Holmium

	Erbium Ytterbium	Thulium Lutetium		
B1130	Cleaned spent precious metal bearing catalysts		ex 381510 ex 711510	
B1140	Precious metal bearing residues in solid form which contain traces of inorganic cyanides		ex 381510 ex 711510	
B1150	Precious metals and alloy wastes (gold , silver, the platinum group) in a dispersible form		ex 381510 ex 711510	
B1160	Precious-metal ash from the incineration of printed circuit boards (note the related entry on list A A1150)			
B1170	Precious metal ash from the incineration of photographic film		ex 284310	
B1180	Waste photographic film containing silver halides and metallic silver			
B1190	Waste photographic paper containing silver halides and metallic silver			
B1200	Granulated slag arising from the manufacture of iron and steel*		GC080	ex 261900
B1210	Slag arising from the manufacture of iron and steel including slag as a source of Titanium dioxide and Vanadium**			ex 261900

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\*Import permitted in the country without any licence or restriction.

\*\* Slag and dross other than granulated, scalings and other wastes are restricted; import permitted with DGFT licence only for the purpose of reprocessing or reuse.



B1220	Slag from zinc production, chemically stabilized, having a high iron content (above 20%) and processed according to industrial specifications mainly for construction*		ex 262030
B1230	Mill scaling arising from manufacture of iron and steel		ex 261900
B1240	Copper Oxide mill-scale**		
<b>B2</b>	<b>Wastes containing principally inorganic constituents, which may contain metals and organic materials</b>		
B2010	Wastes from mining operations in non-dispersible form:		
	- Natural graphite waste*	GD010	250400
	- Slate wastes***		
	- Mica wastes*		
	- Leucite, nepheline and nepheline syenite waste*	GD040	252930
	- Feldspar waste (lumps & powder)*	GD050	252910
	- Fluorspar waste*	GD060	252921
	- Silica wastes in solid form excluding those used in foundry operations		252922
B2020	Glass wastes in non-dispersible form:		
	- Cullet and other wastes and scrap of glass except for glass from cathode ray tubes and other activated glasses*		

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\* Import permitted in the country without any licence or restriction.

\*\* Copper oxide mill scale are allowed for import in the country without DGFT licence to units (actual users) registered with MoEF upto an annual quantity limit indicated in the Registration Letter.

\*\*\*Restricted, import permitted in the country with DGFT licence only for the purpose of reprocessing or reuse.

B2030	Ceramic wastes in non-dispersible form:	GF	
	Cermets wastes and scrap (metal ceramic composites)*	GF020	ex 8113.00
	- Ceramic based fibres		
B2040	Other wastes containing principally inorganic constituents:	GC	
	- Partially refined calcium sulphate produced from flue gas desulphurisation (FGD)	GC010	ex 262100
	- Waste gypsum wallboard or plasterboard arising from the demolition of buildings**		
	- Sulphur in solid form**		
	- Limestone from production of calcium cyanamide (pH<9)***		
	- Sodium, potassium, calcium chlorides**		
	- Carborundum (silicon carbide)		
	- Broken concrete		
	- Lithium tantalum & Lillium-niobium containing glass scraps		

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\*Restricted, import permitted in the country with DGFT licence only for the purpose of reprocessing or reuse.

\*\* Import permitted the country without any licence or restriction

\*\*\*Import of limestone and other calcareous stones of a kind used for manufacture of lime or cement permitted in the country without any licence or restriction.

B2050	Coal-fired power plant fly-ash unless it contains any of the constituents mentioned in Schedule 2 to the extent of concentration limits specified therein		
B2060	Spent activated carbon resulting from the treatment of potable water and processes of the food industry and vitamin production (note the related entry on list AA4160)		
B2070	Calcium fluoride sludge	AB050	ex 281800
B2080	Waste gypsum arising from chemical industry processes unless it contains any of the constituents mentioned in Schedule 2 to the extent of concentration limits specified therein		
B2090	Waste anode butts from steel or aluminium production made of petroleum coke or bitumen and cleaned to normal industry specifications (excluding anode butts from chlor alkali electrolyses and from metallurgical industry)		
B2100	Waste hydrates of aluminum and waste alumina and residues from alumina production, arising from gas cleaning, flocculation or filtration process		ex 281800
B2110	Bauxite residue ("red mud") (pH moderated to less than 11.5) (Note related entry on List A A4090)		ex 260600
B2120	Waste acidic or basic solutions with a pH greater than 2 and less than 11.5, which are not corrosive or otherwise hazardous (note the		

related entry on list A A4090)

**B3 Wastes containing principally organic constituents, which may contain metals and inorganic materials**

B3010 Solid plastic waste\*:  
The following plastic or mixed plastic materials, provided they are not mixed with other wastes and are prepared to a specification:

GH

- Scrap plastic of non-halogenated polymers and copolymers, including but not limited to the following:

ethylene	GH011	391590
styrene	GH012	391520
polypropylene	GH014	391590
polyethylene ere-phthalate	GH014	391590
acrylonitrile	GH014	ex 391590
butadiene	GH014	ex 391590
polyacetals		
polyamides	GH014	ex 391590
polybutylene terephthalate	GH014	ex 391590
polycarbonates	GH014	ex 391590
polyethers		
polyphenylene sulphides	GH014	ex 391590
acrylic polymers	GH014	ex 391590
alkanes C10-C13 (plasticiser)		
polyurethane (not containing CFC's)	GH014	ex 391590
polysiloxanes	GH014	ex 391520
polymethyl methacrylate	GH014	ex 391520
polyvinyl alcohol	GH014	ex 391520
polyvinyl butyral	GH014	ex 391520
Polyvinyl acetate	GH014	ex 391520

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\*Restricted, import permitted in the country with DGFT licence only for reprocessing or reuse [except polyethylene terephthalate (PET) bottle waste/scrap]

- Cured waste resins or condensation products including the following:

urea formaldehyde resins	GH015	ex 391520
phenol formaldehyde resins	GH015	ex 391520
melamine formaldehyde resins	GH015	ex 391520
epoxy resins	GH015	ex 391520
alkyd resins	GH015	ex 391520
polyamides	GH015	ex 391520

- The following fluorinated polymer wastes (excluding post-consumer wastes):

Perfluoroethylene/  
propylene  
Perfluoroalkoxy alkane  
Metafluoroalkoxy alkane  
polyvinylfluoride  
polyvinylidene fluoride

B3020 Paper, paperboard and paper product wastes\*

The following materials, provided they are not mixed with hazardous wastes:

Waste and scrap of paper or paperboard of:

- unbleached paper or paperboard or of corrugated paper or paperboard
- other paper or paperboard, made mainly of bleached chemical pulp, not coloured in the mass

- paper or paperboard made mainly of mechanical pulp (for example, newspapers, journals and similar printed matter)
- other, including but not limited to 1) laminated paperboard 2) unsorted scrap.

B3030 Textile wastes

The following materials, provided they are not mixed with other wastes and are prepared to a specification:

Silk waste (including cocoons unsuitable for reeling, yarn waste and garnetted stock)\*

- not carded or combed
- other

Waste of wool or of fine or coarse animal hair, including yarn waste but excluding garnetted stock\*

- noils of wool or of fine animal hair
- other waste wool or of fine animal hair
- waste of coarse animal hair

Cotton waste (including yarn waste and garnetted stock)\*

- yarn waste (including thread waste)
- garnetted stock
- other

Flax tow and waste\*

Tow and waste (including yarn waste and garnetted stock) of true hemp (Cannabis sativa L.)\*

Tow and waste (including yarn waste and garnetted stock) of jute and other textile bast fibres (excluding flax, true hemp and ramie)\*

Tow and waste (including yarn waste and garnetted stock) of sisal and other textile fibres of the genus Agave\*

Tow, noils and waste (including yarn waste and garnetted stock) of coconut\*

Tow, noils and waste (including yarn waste and garnetted stock) of abaca (Manila hemp or Musa textilis Nee)\*

Tow, noils and waste (including yarn waste and garnetted stock of ramie and other vegetable textile fibres, not elsewhere specified or included  
Waste (including noils, yarn waste and garnetted stock) of man-made fibres\*

- of synthetic fibres
- of artificial fibres

Worn clothing and other worn textile articles

Used rags\*\*, scrap twine, cordage, rope and cables and worn out articles of twine, cordage, rope or cables of textile materials

- sorted
- other

B3040 Rubber wastes\*

The following materials,  
provided they are not mixed  
with other wastes:

- Waste and scrap of hard  
rubber (e.g. ebonite)\*
  
- Other rubber wastes  
(excluding such wastes  
specified elsewhere)

B3050 Untreated cork and wood  
waste

Wood waste and scrap,  
whether or not agglomerated  
in logs, briquettes, pellets or  
similar forms\*

Cork waste: crushed,  
granulated or ground cork\*

B3060 Wastes arising from agro-  
food industries provided it is  
not infectious:

Wine lees\*

Dried and sterilized vegetable  
waste, residues and  
byproducts, whether or not in  
the form of pellets, of a kind  
used in animal feeding, not  
elsewhere specified or  
included\*

GM100 0506 90

Degras: residues resulting  
from the treatment of fatty  
substances or animal or  
vegetable waxes\*\*

GM110 ex 051191

Waste of bones or horn cores  
unworked, defatted, simply  
prepared (but not cut to  
shape) , treated with acid or  
degelatinised\*\*

Fish waste\*\*

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\* Import permitted in the country without any licence or restriction.

\*\*Prohibited under EXIM Policy (ITC- HS Classification)



Cocoa shells, husks, skins  
and other cocoa waste\*

Other wastes arising from  
agro-food industry excluding  
by-products which meet  
national and international  
requirements and standards  
for human or animal  
consumption

- B3070 The following wastes:\*
- Waste of human hair\*
  - Waste straw\*
  - Deactivated fungus  
mycelium from penicillin  
production to be used as  
animal feed
- B3080 Waste parings and scrap of  
rubber\*\*
- B3090 Paring and other wastes of  
leather or of composition  
leather not suitable for the  
manufacture of leather  
articles, excluding leather  
sludges, not containing  
hexavalent chromium  
compounds and biocides  
(note the related entry on list  
A A3100)
- B3100 Leather dust, ash, sludges or  
flours not containing  
hexavalent chromium  
compounds or biocides
- B3110 Fellmongery wastes not  
containing hexavalent  
chromium compounds or  
biocides or infectious  
substances
- B3120 Wastes consisting of food  
dyes\*

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\* Import permitted in the country without any licence or restriction

\*\*Restricted, import permitted in the country with DGFT licence only for reprocessing or reuse

B3130 Waste polymer ethers and waste non-hazardous monomer ethers incapable of forming peroxides

B3140 Waste pneumatic tyres, excluding those which do not lead to resource recovery, recycling, reclamation or direct reuse\*

**B4 Wastes which may contain either inorganic or organic constituents**

B4010 Wastes consisting mainly of water-based/latex paints, inks and hardened varnishes not containing organic solvents, heavy metals or biocides to an extent to render them hazardous (note the related entry on list A A4070)

B4020 Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives, not listed on list A, free of solvents and other contaminants to an extent that they do not exhibit Annex III characteristics, e.g. water-based, or glues based on casein starch, dextrin, cellulose ethers, polyvinyl alcohols (note the related entry on list A A3050)

B4030 Used single-use cameras, with batteries not included on list A

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\*Import permitted in the country without any licence or restriction

## Part B: List of Hazardous Characteristics

<u>Code</u>	<u>Characteristic</u>
1	<b>Explosive</b> An explosive substance or waste is a solid or liquid substance or waste (or mixture of substances or wastes) which is in itself capable by chemical reaction of producing gas at such a temperature and pressure and at such speed as to cause damage to the surroundings (UN Class 1; HI)
3	<b>Flammable Liquids</b> The word "flammable" has the same meaning as "inflammable". Flammable liquids are liquids, or mixtures of liquids, or liquids containing solids in solution or suspension (for example, paints, varnishes, lacquers, etc. but not including substances or wastes otherwise classified on account of their dangerous characteristics) which give off a flammable vapour at temperatures of not more than 60.5°C, closed-cup test, or not more than 65.5°C, open-cup test. (Since the results of open-cup tests and of closed-cup tests are not strictly comparable and even individual results by the same test are often variable, regulations varying from the above figures to make allowance for such differences would be within the spirit of this definition).
4.1	<b>Flammable Solids</b> Solids, or waste solids, other than those classed as explosives, which under conditions encountered in transport are readily combustible, or may cause or contribute to fire through friction.
4.2	<b>Substances or wastes liable to spontaneous combustion</b> Substances or wastes which are liable to spontaneous heating under normal conditions encountered in transport, or to heating up on contact with air, and being then liable to catch fire.
4.3	<b>Substances or wastes which, in contact with water emit flammable gases</b> Substances or wastes which, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.
5.1	<b>Oxidizing</b> Substances or wastes which, while in themselves not necessarily combustible, may, generally by yielding oxygen cause, or contribute to, the combustion of other materials.

- 5.2 Organic Peroxides**  
Organic substances or wastes which contain the bivalent-O-O- structure are thermally unstable substances which may undergo exothermic self-accelerating decomposition.
- 6.1 Poisons (Acute)**  
Substances or wastes liable either to cause death or serious injury or to harm health if swallowed or inhaled or by skin contact.
- 6.2 Infectious substances**  
Substances or wastes containing viable micro organisms or their toxins which are known or suspected to cause disease in animals or humans.
- 8 Corrosives**  
Substances or wastes which, by chemical action, will cause severe damage when in contact with living tissue, or, in the case of leakage, will materially damage, or even destroy, other goods or the means of transport; they may also cause other hazards.
- 10 Liberation of toxic gases in contact with air or water**  
Substances or wastes which, by interaction with air or water, are liable to give off toxic gases in dangerous quantities.
- 11 Toxic (Delayed or chronic)**  
Substances or wastes which, if they are inhaled or ingested or if they penetrate the skin, may involve delayed or chronic effects, including carcinogenicity).
- 12 Ecotoxic**  
Substances or wastes which if released present or may present immediate or delayed adverse impacts to the environment by means of bioaccumulation and/or toxic effects upon biotic systems.
- 13 Capable** by any means, after disposal, of yielding another material, e.g., leachate, which possesses any of the characteristics listed above.

**Schedule - 4**

[See rule 3 (20), 19 (1) and 20(1)]

**List of Non-Ferrous Metal Wastes Applicable for Registration of Recyclers**

<b>Waste Category</b>	<b>Waste Type</b>
<b>1</b>	<b>2</b>
1	Brass Scrap
2	Brass Dross
3	Copper Scrap
4	Copper Dross
5	Copper Oxide mill scale
6	Copper reverts, cake and residue
7	Waste Copper and copper alloys
8	Slags from copper processing for further processing or refining
9	Insulated Copper Wire Scrap/copper with PVC sheathing including ISRI-code material namely "Druid"
10	Jelly filled copper cables
11	Spent cleared metal catalyst containing copper
12	Nickel Scrap
13	Spent catalyst containing nickel, cadmium, zinc, copper and arsenic
14	Zinc Scrap
15	Zinc Dross-Hot dip Galvanizers SLAB
16	Zinc Dross-Bottom Dross
17	Zinc ash/skimmings arising from galvanizing and die casting operations
18	Zinc ash/skimming/other zinc bearing wastes arising from smelting and refining
19	Zinc ash and residues including zinc alloy residues in dispersible form
20	Spent cleared metal catalyst containing zinc
21	Mixed non-ferrous metal scrap
22	Lead acid battery plates and other lead scrap/ashes/residues not covered under Batteries (Management and Handling) Rules, 2001.

**Schedule - 5\***  
[See rule 3 (34)]

**Specifications for Used oil Suitable for Re-refining**

<b>Sr.No.</b>	<b>Parameter</b>	<b>Maximum Permissible Limit</b>
<b>1</b>	<b>2</b>	<b>3</b>
1.	Colour	8 hazen units
2.	Water	15%
3.	Density	0.85 to 0.95
4.	Kinematic Viscosity cSt at 100°C	1.0 to 32
5.	Dilutents	15% vol.
6.	Neutralisation No.	3.5 mg KOH/g
7.	Saponification value	18 mg KOH/g
8.	Total halogens	4000 ppm
9.	Polychlorinated biphenyls (PCBs)	Below detection limit
10.	Lead	100 ppm
11.	Arsenic	5 ppm
12.	Cadmium+Chromium+ Nickle	500ppm
13.	Polyaromatic hydrocarbons (PAH)	6%

\* Notification G.S.R. 620 (E) dated 06.09.1995 is hereby rescinded.

**Schedule – 6**  
[See rule 3(35) and 20(2)]

**Specifications for Waste Oil Suitable for Recycling**

<b>Sr. No.</b>	<b>Parameter</b>	<b>Limit</b>
<b>1</b>	<b>2</b>	<b>3</b>
1.	Sediment	5% (maximum)
2.	Heavy Metals (cadmium+chromium +nickel+lead+arsenic)	605 ppm maximum
3.	Polyaromatic hydrocarbons (PAH)	6% maximum
4.	Total halogens	4000 ppm maximum
5.	Polychlorinated biphenyls (PCBs)	Below Detection Limit

## Schedule - 7

[ See rule 4(B) and 12 (4) ]

### List of Authorities and Corresponding Duties

S. No.	Authority	Corresponding Duties
1	2	3
1.	Ministry of Environment and Forests under the Environment (Protection) Act, 1986	(i) Identification of hazardous wastes [Rule 3(14)] (ii) Permission to exporters [rule 14] (iii) Permission to importers [rule 13] (iv) Permission for transit of hazardous wastes through India [rule 12(2)]
2.	Central Pollution Control Board constituted under the Water (Prevention and Control of Pollution) Act, 1974	(i) Co-ordination of activities of State Pollution Control Boards/Committees (ii) Conduct training courses for authorities dealing with management of hazardous wastes (iii) Recommend standards and specifications for treatment and disposal of wastes and leachates Recommend procedures for characterization of hazardous wastes. (iv) Sector specific documentation to identify waste streams(s) for inclusion in Hazardous Wastes Rules (v) Prepare guidelines to prevent/reduce/minimize the generation and handling of hazardous wastes (vi) Registration and renewal of registration of Recyclers/Re-refiners of non-ferrous metal wastes and used oil/waste oil [Rule 19] (vii) Any other function under Rules delegated by the Ministry of Environment and Forests
3.	State Government/Union Territory Government/ Administration	(i) Identification of site(s) for common treatment, storage and disposal facility (TSDF) [Rule 8(2)] (ii) Assess EIA reports and convey the decision of approval of site or otherwise [rule 8(6)] (iii) Acquire the site or inform operator of facility or occupier or association of occupiers to acquire the site [Rule 8(7)] (iv) Notification of sites [Rule 8(7)] (v) Publish periodically an inventory of all disposal sites in the State/Union territory [Rule 8(7)]



S. No.	Authority	Corresponding Duties
4.	State Pollution Control Boards or Pollution Control Committees constituted under the Water (Prevention and Control of Pollution) Act, 1974	<ul style="list-style-type: none"> <li>(i) Inventorisation of hazardous wastes [Rule 9(3)]</li> <li>(ii) Grant and renewal of authorisation [Rule 5]</li> <li>(iii) Monitoring of compliance of various provisions and conditions of authorisation including exports and imports</li> <li>(iv) Issue of public notice and conduct public hearing [Rule 8(4)]</li> <li>(v) Examining the applications for imports submitted by the importers and forwarding the same to Ministry of Environment and Forests [Rule 13 (1) &amp; (2)]</li> <li>(vi) Implementation of programmes to prevent/reduce/minimise the generation of hazardous wastes</li> <li>(vii) Action against violations of Hazardous Wastes (Management and Handling) Rules, 1989</li> </ul>
5.	Directorate General of Foreign Trade constituted under the Foreign Trade (Development and Regulation) Act, 1992	<ul style="list-style-type: none"> <li>(i) Grant of licence for import of hazardous wastes [Rule 13 (5)]</li> <li>(ii) Refusal of licence for hazardous wastes prohibited for imports or export [Rule 12(7)]</li> </ul>
6.	Port Authority under Indian Ports Act, 1908 (15 of 1908) and Customs Authority under the Customs Act, 1962 (52 of 1962).	<ul style="list-style-type: none"> <li>(i) Verify the documents [Rule 13 (6)]</li> <li>(ii) Inform the Ministry of Environment and Forests of any illegal traffic [Rule 15]</li> <li>(iii) Analyse wastes permitted for imports and exports</li> <li>(iv) Train officials on the provisions of the Hazardous Wastes Rules and in the analysis of hazardous wastes</li> <li>(v) Take action against export/import violations under the Indian Ports Act, 1908/Customs Act, 1962</li> </ul>

**Schedule - 8**  
[See rule 12 (1)]

**Hazardous Wastes Prohibited for Import and Export**

S. No.	Basel* No.	OECD ** No.	Description of material
1	2	3	4
1.	A 1010	AA 100	Mercury
2.	A 1030	AA 100	Waste having Mercury: Mercury Compounds as constituents or contaminants
3.	A 1010	AA 070	Beryllium
4.	A 1020	AA 070	Waste having Beryllium: Beryllium Compounds as constituents or contaminants
5.	A 1010	AA 090	Arsenic
6.	A 1030	AA 090	Waste having Arsenic: Arsenic compounds as constituents or contaminants
7.	A 1010	AA 070	Selenium
8.	A 1020	AA 070	Waste having Selenium; Selenium Compounds as constituents or contaminants
9.	A 1010	AA 080	Thallium
10.	A 1030	AA 080	Waste having Thallium; Thallium Compounds as constituents or contaminants
11.	A 1040	AA 070	Hexavalent Chromium Compounds
12.	A 1140		Wastes Cupric Chloride and Copper Cyanide Catalysts
13.	A 2020		Waste inorganic fluorine compounds in the form of liquids or sludge but excluding calcium fluoride sludge
14.	A 2040		Waste gypsum arising from chemical industry processes if it contains any of the constituents mentioned in Schedule 2 to the extent of concentration limits specified therein
15.	A 2050	RB 010	Waste Asbestos (Dust and Fibres)
16.	A 2060		Coal fired power plant fly ash if it contains any of the constituents mentioned in Schedule 2 to the extent of concentration limits specified therein
17.	A 3030		Wastes that consist of or are contaminated with leaded anti-knock compound sludge or leaded petrol (gasoline) sludges.

18.	A 3040		Waste thermal (heat transfer) fluids.
19.	A 3060		Waste Nitrocellulose.
20.	A 3090		Waste leather dust, ash, sludges and flours when containing hexavalent chromium compounds or biocides.
21.	A 3100		Waste paring and other waste of leather or of composition leather not suitable for the manufacture of leather articles containing hexavalent chromium compounds or biocides.
22.	A 3110		Fellmongery wastes containing hexavalent chromium compounds or biocides or infectious substances.
23.	A 3150		Waste halogenated organic solvents.
24.	A 3180	AC 120	Waste, Substances and articles containing, consisting of or contaminated with polychlorinated biphenyles (PCB) and/or polychlorinated terphenyls. (PCT) and/or polychlorinated naphthalenes (PCN) and/or polybrominated biphenyles (PBB) or any other polybrominated analogues of these compounds
25.	A 3190		Waste tarry residues (excluding asphalt cements) arising from refining, distillation and pyrolytic treatment of organic materials)
26.	A 4020		Clinical and related wastes; that is wastes arising from medical, nursing, dental, veterinary, or similar practices and wastes generated in hospital or other facilities during the investigation or treatment of patients, or research projects.
27.	A 4030	AD 020	Waste from the production, formulation and use of biocides and phyto-pharmaceuticals, including waste pesticides and herbicides which are off-specification, out-dated, and/or unfit for their originally intended use.
28.	A 4050	AD 040	Waste that contain, consist of, or are contaminated with any of the following; <ul style="list-style-type: none"> <li>• Inorganic cyanides, excepting precious metal bearing residues in solid form containing traces of inorganic cyanides.</li> <li>• Organic cyanides.</li> </ul>
29.	A 4060		Waste oil/water, hydrocarbons/water mixtures, emulsions

\* Basel Convention on / Control of Transboundary Movement of Hazardous Waste and their Disposal

\*\* Organisation for Economic Cooperation and Development."

16. In the said rules, for Form 1, the following Form shall be substituted, namely:-

**Form -1**

[See rules 3(2), 5(2)(3) and (6) (ii) ]

**Application for Obtaining Authorisation for Collection/ Reception/ Treatment/  
Transports/ Storage/ Disposal of Hazardous Waste\***

From: .....  
.....  
.....

To  
The Member Secretary,  
..... Pollution Control Board,  
.....  
.....

Sir,

I / We hereby apply for authorisation./ renewal of authorisation under sub-rule (2) and (3) and clause (ii) of sub-rule (6) of rule 5 of the Hazardous Wastes ( Management and Handling ) Rules, 1989 for collection/ reception/ treatment/ transport/ storage/ disposal of hazardous wastes.

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For Office Use Only

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1. Code No. :
2. Whether the unit is situated in a critically polluted area as identified by Ministry of Environment and Forests;

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To be filled in by Applicant

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**Part - A: General**

3. (a) Name and address of the unit and location of activity  
(b) Authorisation required for ( Please tick mark appropriate activity / activities :
  - (i) collection
  - (ii) reception
  - (iii) treatment
  - (i) transport
  - (ii) storage
  - (iii) disposal
- (c) In case of renewal of authorisation previous authorisation number and date

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\*delete whichever is not applicable

4. (a) Whether the unit is generating hazardous waste as defined in the Hazardous wastes (Management and Handling) Rules, 1989 and amendments made thereunder;  
(b) If so the type and quantity of wastes
5. (a) Total capital invested on the project :  
(b) Year of commencement of production :  
(c) Whether the industry works general/ 2 shifts/ round the clock :
6. (a) List and quantum of products and by-products :  
(b) List and quantum of raw material used :
7. Furnish a flow diagram of manufacturing process showing input and output in terms of products and waste generated including for captive power generation and demineralised water.

**Part - B: Sewage and Trade Effluent**

8. Quantity and source of water for :
  - (a) Cooling  $m^3/d$
  - (b) Process  $m^3/d$
  - (c) Domestic use  $m^3/d$
  - (d) Others  $m^3/d$
9. Sewage and trade effluent discharge ;
  - (a) Quantum of discharge  $m^3/d$  :
  - (b) Is there any effluent treatment plant :
  - (c) If yes, a brief description of unit operations with capacity :
  - (d) Characteristics of final effluent:
    - pH
    - Suspended solids
    - Dissolved solids
    - Chemical Oxygen Demand (COD)
    - Biochemical Oxygen Demand <sup>a</sup>[ ( BoD<sub>5</sub>/ 20°C )/BoD<sub>3</sub>/27°C ]
    - Oil and grease
    - ( additional parameters as specified by the concerned Pollution Control Board )
  - (e) Mode of disposal and final discharge point :  
( enclose map showing discharge point) :
  - (f) Parameters and Frequency of self monitoring :  
[\*] Read BOD ( 3 days at 27°C )

**Part - C: Stack ( Chimney ) and Vent Emissions**

10. (a) Number of stacks and vents with height and dia (m) :  
(b) Quality and quantity of stack emission from each of the above stacks-particulate matter and Sulphar dioxide ( SO<sub>2</sub> ) ( Additional parameters as specified by the concerned Pollution Control Board) :  
(c) A brief account of the air pollution control unit to deal with the emission:  
(d) Parameters and Frequency of self monitoring:

**Part - D: Hazardous Waste**

11. Hazardous Wastes :
- (a) Type of hazardous wastes generated as defined under the Hazardous Wastes (Management and Handling) Rules, 1989:
  - (b) Quantum of hazardous waste generated:
  - (c) Mode of storage within the plant, method of disposal and capacity:
12. (a) Hazardous Chemicals as defined under the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989)
- (b) Whether any isolated storage is involved (if yes, attach details) *Yes / No*

**Part - E: Treatment, Storage and Disposal Facility**

13. Detailed proposal of the facility (to be attached) to include :
- (i) Location of site (provide map)
  - (ii) Name of waste processing technology
  - (iii) Details of processing technology
  - (iv) Type and Quantity of waste to be processed per day
  - (v) Site clearance ( from local authority, if any )
  - (vi) Utilization programme for waste processed ( Product Utilization )
  - (vii) Method of disposal (details in brief be given )
  - (viii) Quantity of waste to be disposed per day
  - (ix) Nature and composition of waste
  - (x) Methodology and operational details of landfilling/ incineration
  - (xi) Measures to be taken for prevention and control of environmental pollution including treatment of leachates
  - (xii) Investment on Project and expected returns
  - (xiii) Measures to be taken for safety of workers working in the plant

Place :

Date :

Signature : .....

Designation : .....";

17. In the said rules, for Form 4, the following Form shall be substituted, namely:-

**'Form – 4**

[See rule 9(2)]

**Form For Filing Returns Regarding Handling Of Hazardous Wastes**  
 [to be submitted to the State Pollution Control Board / Committee  
 by 31<sup>st</sup> January of every year]

1. Name and address of the Occupier/Operator of Facility:
2. Categories of wastes generated and quantity (in metric tonnes):
3. Details of waste treatment operations:
4. Details of waste disposal operations:

S.No.									
Description of Hazardous Waste									
1	2	3	4	5	6	7	8	9	10
	Date of issuance of authorisation for the disposal of hazardous waste and its reference number	Physical form and contents	Chemical form	Total Volume of the hazardous waste disposed with no. of packages	Mode of transportation to the site of disposal	Site of disposal (attach a sketch showing the location(s) of disposal)	Brief description of the method of disposal	Date of disposal	Remarks (if any)

5. Details of environmental surveillance:

Date of other Measurement details)	<u>Analysis of ground water samples</u>			<u>Analysis of soil samples</u>			<u>Analysis of air sampling</u>		Analysis of any samples (give
	Location of Sampling	Depth of sampling	Data	Location of sampling	Depth of sampling	Data	Location of sampling	Data	

Place:

Signature:

Designation: .....";

Date:

18. In the said rules, after Form 10, the following Forms shall be inserted, namely:-

**"Form-11**  
[See rules 19(2) and 19(6)]

**Form of application for Grant/Renewal of Registration of Industrial Units Possessing Environmentally Sound Management Facilities for Recycling/Re -Refining Non-Ferrous Metal Wastes/Used Oil/Waste Oil\***

{To be submitted to the Central Pollution Control Board in triplicate}

1	Name and Address of the unit	
2	Name of the occupier or owner of the unit with designation, Tel / Fax	
3	Date of commissioning of the unit	
4.	No. of workers ( including contract labourers )	
5	Consent Validity	Air (Prevention and Control of Pollution) Act, 1981 Valid up to Water (Prevention and Control of Pollution) Act, 1974 Valid up to
6.	Authorisation under Rule 5 of the HW (M & H ) Rules, 1989.	Valid up to
7.	Product Manufactured during the last three years (Tonnes / Year ) Name a) b) c)	
8.	Raw material consumption during last three years (Tonnes/ year) Name a) b) c)	
9.	Manufacturing Process	Please attach manufacturing process flow diagram for each product (s)
10.	Water Consumption	Industrial -----m <sup>3</sup> / day Domestic-----m <sup>3</sup> /day
11	Water Cess paid up to	
12	Waste water generation a. as per consent m <sup>3</sup> /day b. actual m <sup>3</sup> /day ( average of last three months)	Industrial Domestic
13	Waste water treatment ( please provide flow diagram of the treatment scheme )	Industrial Domestic
14.	Waste water discharge	Quantity m <sup>3</sup> /day Location <u>Analysis of treated waste water</u> pH, BOD, COD, SS, O&G Any other
15.	Air Pollution Control a. please provide flow diagram for emission control system (s) installed for each process unit, utilities etc. b. Details of facilities provided control of fugitive emission due to material handling, process , utilities etc.  Fuel consumption Stack emission monitoring results Ambient air quality	S.No Name quantity D/M No. Stack <u>Emission mg/Nm</u> Attach to PM SO <sub>2</sub> Metals ( pb. Zn. ) S. No. Location <u>parameter mg/m</u> SO <sub>2</sub> , NO <sub>x</sub> ,SPM, Pb, any others

\*Delete whichever is not applicable



16.	Hazardous waste management a. Waste generation b. Details on collection , treatment and transport c. Disposal (I) Please furnish details of the disposal facilities (II)Whether facilities provided are in compliance with the conditions laid down in the authorisation granted under rule 5 by the State Pollution Control Board (III)Please attach analysis report of characterisation of hazardous waste generated ( including leachate test if applicable )	S.No. Name Category <u>Quantity</u> ( last 3 years)
17	Details of waste proposed to be acquired through auction /negotiation/contract or import as the case may be for use as raw material.	1. Name 2. Quantity required per year 3. Waste listing & No. in Annex VIII (List A)/ Annex IX (List B) of Basel Convention ( BC) 4. Hazard Characteristic as per Annex III of (BC)
18	Occupational safety and Health aspects	Please provide details of facilities provided
19	Remarks ( I ) whether industry has provided adequate pollution control system / equipment to meet the standards of emission / effluent. (II) Whether industry is in compliance with conditions laid down in the HW authorisation. (III) whether HW collection and Treatment , Storage and Disposal Facility (TSDF) are operating satisfactorily (IV) Whether conditions exists or likely to exists of the material being handled /processed of posing immediate or delayed adverse impacts on the Environment. (V) Whether conditions exists or is likely to exists of the material being handled / processed by any means capable of yielding another material eg , leachate which may possess eco-toxicity.	Yes / No.  Yes / No  Yes / No  Yes / No  Yes / No
20	Any other Information I) II) III)	
21	List of enclosures as per rule 19(2)	

Signature of applicant

Designation:

Date:.....

Place:.....

**Form - 12**

[ See rule 19 (13) ]

**Form for Filing Returns by Recyclers/Re-refiners of Non-Ferrous Metal Wastes/  
Used Oil/Waste Oil\***

[To be submitted by recyclers/re-refiners to State Pollution Control Board/ Committee by  
31<sup>st</sup> January of every year]

1.	Name and address of the recycler	
2.	Name of the authorised person and full address with telephone and fax number	
3.	Installed annual capacity to recycle non-ferrous metal wastes/used oil/waste oil ( in MTA )	
4.	Total quantity of non-ferrous metal wastes/ used oil ( in MTA ) purchased/ processed/ sold during the period from October – March / April –September	(i) Quantity of wastes purchased from the manufactures- (ii) Quantity of wastes purchased from auctioneers- (iii) Quantity of wastes obtained form any other source- (iv) Quantity of wastes processed- (v) Quantity of wastes sold
5.	Quantity and type material recovered from non-ferrous metal wastes/used oil/waste oil (in MTA)	
6.	Quantity of recyclable materials sent back	(i) the manufacturers (ii) other agencies #

- delete whichever is not applicable
- # enclose list of other agencies

Place : .....  
Date : .....

Signature:  
Designation:

**Form - 13**  
[ See rule 20 (5) ]

**Form for Filling Returns of Auction/ Sale of Non-Ferrous Metal Wastes/  
Used Oil/Waste Oil \***

[To be submitted by waste generators / auctioneers to the concerned State Pollution Control Board / Committee by 31<sup>st</sup> January of every year]

1.	Name and address of the waste generator/auctioneer	
2.	Total quantity of wastes auc tioned / sold during the period	(i) Non-ferrous Metal Wastes [indicate type and quantity in metric tonnes alongwith the name(s)/address(s) of registered recycler(s)]:  (ii) Used oil/waste oil [indicate type and quantity in metric tonnes alongwith the name(s)/address(s) of registered recycler(s)/re-refiner(s)]

\*delete whichever is not applicable

Signature:

Designation: ....."

Place : .....

Date : .....

[ File No. 23(16)/2001-HSMD ]

DR. V. RAJAGOPALAN  
Joint Secretary

Footnote: Principal rules were published in the Gazette of India vide S.O. 549(E) dated 28<sup>th</sup> July, 1989 and subsequently amended vide S.O. 24(E) dated 6<sup>th</sup> January, 2000.