No.12-17/2008-HSMD Government of India Ministry of Environment and Forests HSM Division

Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi – 110 003 Dated 3rd Septmeber, 2008

OFFICE ORDER

Sub: Committee to evolve a roadmap for management of wastes in the country.

The Ministry of Environment & Forests, Government of India, hereby constitute a Committee to prepare a road map for management of wastes in India. The Committee shall comprise of the following members:-

1.	Sh. R.H.Khwaja Additional Secretary, MoEF, Delhi.		Chairman
2.	Chairman, Delhi Pollution Control Committee, Delni	•	Member
3.	Member-Secretary, CPCB, Delhi.	-	Member
4.	Representative of CAG, Delhi.	-	Member
5.	Mr. K. V. Sarabhai, Director, CEE, Ahmedabad	-	Member
6.	Mr. Ravi Agarwal, Director, Toxics Link, Delhi	-	Member
7.	Mr. P. C. Tyagi, Former Chairman, CPCB, Delhi	-	Member
8.	Prof. S. P. Mehrotra Director, NML, Jamshedpur	-	Member
9.	Dr. G. K. Pandey Adviser, MoEF, New Delhi	•	Member-Secretary

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- 2. The Terms of Reference of the Committee is to evolve a roadmap for proper management of wastes in the country.
- 3. The Committee may invite for its meetings any expert(s)/representative(s) of the concerned Ministries as special invitees.
- 4. The Committee may meet as often as may be necessary.
- 5. The Committee shall submit its report within 3 months from the date of its constitution.
- 6. The TA/DA of non-official members for attending the Committee meetings will be borne by the Ministry of Environment and Forests as per the Government of India rules.
- 7. Sitting charges of Rs. 1,000/- will be paid to each participating non-official member of the Committee.
- 8. This issues with the approval of Secretary (E&F).

(M. Subba Rao)
Director (HSMD)

Copy to:

1. All the concerned.

2. PPS to Secy(E&F), 3. PPS to AS(RHK), 4. PS to JS(RKV), 5. PS to Adv(GKP), 6. SO(HSMD), 7. IFD/GC/Spare Copy.

No.12-19/2008-HSD Government of India Ministry of Environment & Forests HSM Division

Paryavaran Bhawan, CGO Complex, Lodi Road, New Delhi, 110 003

Dated: 2nd February, 2009

OFFICE ORDER

Sub: Committee to evolve a roadmap for management of wastes in the country.

In partial modification of the Office Order dated 3rd September, 2008 constituting a Committee to prepare a road map for management of wastes in India, it has been decided to include the representative from Ministry of Health and Family Welfare and Ministry of Urban Development as the Members of the Committee.

- 2. The tenure of the Committee has been extended up to 30th April, 2009.All other terms and conditions remains same.
- 3. This issues with the approval of the Competent Authority.

(Dr. Manoranjan Hota) — Additional Director

Copy to:

- All the Members of the Committee
 Secretary, Ministry of Urban Development
 Secretary, Ministry of Health & Family Welfare
 PPS to Secretary (E&F),
- 5. PPS to AS(RHK)
- 6. PS to Adv.(GKP)
- 7. SO (HSMD)
- 8. IFD/GC/Spare Copy
- 9. Dr. Saroj, Director (HSMD)
- 10. Dr. M. Suba Rao, Director (HSMD)
- 11. Dr. Chhanda Chowdhry, Director (HSMD)

Annexure-2

Minutes of the First Meeting of Committee to Evolve a Roadmap on Management of Wastes in India



In consonance with the recommendations and suggestions made by the Principal Director of Audit, Scientific Department (PDA-SD) in its Report on "Performance Audit of Management of Wastes in India" the Ministry of Environment & Forests (MoEF) constituted a Committee on 3rd September, 2008 under the Chairmanship of Shri R.H. Khwaja, Additional Secretary, MoEF to Suggest a Roadmap on Management of Wastes in India. The First Meeting of the Committee was held on 21st October, 2008 at 3.00 P.M. in the Chamber of the Chairman. A representative of the Ministry of Urban Development was invited for the meeting as the report mainly pertains to Municipal Solid Waste Management. The list of the members who attended the meeting is enclosed at Annexure-1.

After welcoming the members, the Chairman informed about the background and objectives of the meeting. He stated that although we have all the requisite laws and various aspects of waste management, execution/implementation is poor mainly because of the non-willingness of the implementers, besides some other constraints. He suggested that the Committee should come out with concrete, practically implementable action plan for waste management in the country within the specified time period for the Committee. He requested the Committee Members to go through the Executive Summary and the recommendations of the CAG Report and review each recommendation with the practical approach and suggest action points to implement the recommendations. He, then requested each member of the Committee for their preliminary views regarding waste management in the country.

Mr. Viswanathan from CAG gave an overview of the work carried out by their organization and the contents of the Report. He informed the Committee that they have not distinguished between various kinds of wastes for studying the mechanism of implementation and compliance of various rules. However, since the hazardous wastes management in the country has a more or less defined structure and has altogether a different regime, they have excluded the same from the recommendation on policy framework, monitoring and coordination. The report primarily focuses on municipal solid waste, plastic waste and bio-medical wastes. They have also reviewed some of the international practices and suggested certain measures for management of wastes. These are only guiding recommendations and the MoEF is free to adopt whatever is practically implementable. He, then distributed the copies of the Report to all the members for their review. The members were requested not to quote or make it public till it is laid in the Parliament.

Mr. Paritosh Tyagi, Ex- Chairman, CPCB expressed that the Committee may pick up the relevant work done by the National Waste Management Council which had prepared reports on three types of waste viz. industrial, municipal solid waste and rural waste. Those reports may be reviewed once again and action point suggested which are

still incomplete may be completed. He also suggested that Ministry of Health should also be made member of the Committee. The Committee should also look into the waste from the industries like packaging etc. He suggested to the Ministry that the scope of the Road map may be defined for a clear understanding of the Committee.

Ms. Shyamala Mani, representative of CEE expressed that there are technological barriers in implementing the Municipal Solid Waste Rules as the Rules stipulate segregation of waste at source while many of the entrepreneurs adopt entirely different options like wastes to energy where no segregation is recommended. Many Municipalities are having this technology embargo, therefore, actual execution of the rules is not possible. Further, emphasis should be more on reduction of waste rather than collection and disposal.

Shri Satish Sinha, Toxic Links expressed that the besides these issues, the implementation of Bio-medical wastes Rules is also very poor due to many reasons which include lack of resource, governance, capacity etc.

Shri Makhijani, Member Secretary, CPCB expressed that the CPCB has compiled the information about various type of wastes and their characteristics, however, the information regarding MSW and Plastic Wastes is poor as the main implementing authority for MSW is Ministry of Urban Development. Since MoEF and CPCB are the main implementing authorities for hazardous and Bio-medical wastes, CPCB has fairly good quality data on both these wastes.

Shri M. Sankarnarayanan, Deputy Adviser, CPEHEEO, Ministry of Urban Development expressed that as management of Municipal Solid Waste is a State subject, MUD has no information regarding Solid Waste Management in the States which the Chairman questioned. He clarified that since the Secretary-in-Charge, State Department of Urban Development and the Urban Local Bodies (ULBs) are responsible for implementing the MSW Rules in the Municipal Area in their jurisdiction, and MUD is the Central Ministry for the same, it becomes automatically the responsibility of MUD to implement these Rules in the States. It was suggested that MUD may also be made member of the Waste Management Committee constituted by MoEF.

Shri J.K.Dadoo, Chairman, DPCC informed the Committee regarding various measures taken by Delhi Government for Municipal Solid Waste, Bio-Medical Waste, E-Waste, Mercury Waste and Hazardous Wastes. He further informed the Committee about various models on public-private partnerships on which the Delhi Government is working for MSW including compost plant and energy generation. In his opinion, any technological issues can be resolved after analyzing the waste characteristics and available resources.

In the end, it was decided that there is a need to thoroughly look into the recommendations of CAG in the light of existing Rules and regulations and suggest the action points for improving the present system. It was suggested that two working

groups may be constituted on MSW, Plastic, Demolition and Packaging wastes and Bio-Medical and E-Waste. The Sub-Group shall also examine the existing Practices & available Technologies, both at National and International levels. The suggestions made were agreed and the 2 Sub groups were constituted with the following compositions:

1. Working Group on MSW, Plastic, Demolition and Packaging Waste

(i)	Shri J.K. Dadoo	-	Chairman	
(ii)	Shri K.B. Sarabhai, CEE	-	Member	
(iii)	Shri Raj G. Viswanathan, CAG of India		Member	
(iv)	Representative of Ministry of Urban Develo	Member		
(v)	Representative of CPCB	-	Member Convene	er

2. Working Group on Bio-Medical, Hazardous and E-Waste

(i)	The Member Secretary, CPCB	-	Chairman
(ii)	Prof. S.P. Malhotra, NML	-	Member
·(iii)	Shri Ravi Agarwal, Toxic Links	-	Member
(iv)	Ms. Namita Prasad, CAG of India	-	Member
(v)	Representative of CPCB	-	Member Convener

The Ministry shall issue the formal orders and Terms of References for the working groups.

The meeting ended with the vote of thanks to the Chair.

Minutes of the 2ND meeting of the Committee to evolve road map on management of wastes in India

The 2nd meeting of the Committee to evolve road map on management of wastes in India was held on 4th September, 2009 under the Chairmanship of Shri R. H. Khwaja, Additional Secretary. The list of participants is at Annexure.

- 2. The Chairman, at the outset, welcomed the participants and mentioned that the Committee was constituted on 3rd September, 2008 to evolve a roadmap for proper management of wastes in the country. He also briefly mentioned about the report titled "Performance Audit Management of Waste in India" prepared by the Comptroller and Auditor General of India. The first meeting of the Committee which was held on 21st October, 2008 constituted two Working Groups to further deliberate (i) on Municipal Solid Waste (MSW), plastic, construction & demolition and packaging waste under the Chairmanship of Secretary, Department of Environment, Government of Delhi and (ii) on biomedical, hazardous and e-waste under the Chairmanship of the Member Secretary, CPCB. The Committee was to submit the report within three months i.e. by 3rd December, 2008. The tenure of the Committee was extended up to 30th April, 2009 due to non-submission of reports from the respective working groups. Since the Working Groups have recently submitted the reports, the Committee could now finalise it's report. He then requested the respective working groups to give presentation of their work. He also requested the members to offer their views/comments on the recommendations of the working groups so as to finalize the report.
- Dr. A B Akolkar, gave a presentation of the Working Group on the Municipal Solid Waste Management. The working group informed that there are 5260 cities in the country with estimated waste generation to the tune of 0.573 MMT/d as per 2008 estimation. The Working Group mentioned that out of the total 5260 Local bodies only 1167 (2007-08) Local Bodies have been granted authorization. There has been no fixed target for compliance to the Schedule I of the MSW Rules, 2000 and also no regular practice of monitoring of waste processing and disposal. The Working Group made several recommendations which have been agreed by the Members of the Committee. These recommendations include that the Urban Local Bodies (ULBs) need to assess quantity/characteristics of MSW before selection of processing technology, the ULBs need to ensure 100% waste segregation, (driven by Awareness program/NGO involvement), house-to-house waste collection, adequate waste storage facility, daily garbage lifting & transportation, waste processing (organic & recyclables, use inert for brick kilns & land reclamation (end up to zero waste), organize waste segregation & collection through awareness program, involving PPP/NGOs or by ULB, SPCBs/PCCs to grant authorization to ULBs after DPR etc.
- 4. Some members have expressed concern over the lack of implementation of the MSW Rules, 2000 and suggested that a system needs to be put into place for compliance of regulations and best practices which would monitor the progress of the implementation. This system will help in tracking early slippages, identifying reasons and would enable concerned stakeholders for better compliance. The detailed recommendations would be finalized taking all the comments/suggestions in view.
- 5. The report of the Sub Group on Plastic Waste Management was presented by Dr. R K Khandal. He mentioned that an estimated quantity of 10,000 TPD i.e. 9% of MSW is generated in the country. The per capita generation of plastic waste is 5.7 kg

/annum. The main cause of concern of this waste is it's non-biodegradability. The Group documented that 90% of the plastic types are estimated to be recycled. There is a need for exact quantification of such wastes. The working-group was of the view that since the plastic waste generation is bound to grow, therefore the implementation of regulatory system need to be made more effective. Methodologies need to be adopted for rejection, disposal and reduction of plastic waste. The working-group explained the environmental issues/concerns which includes littering of plastics carry-bags, packaging films due to lack of proper collection system, burning of non recyclable plastic waste of multi-layer, metallized pouches which causes health hazards, functioning in non conforming areas etc. The detailed recommendations would be finalized taking all the comments/suggestions in view.

- 6. Dr. N.B. Mazumdar presented the findings of the sub-group on Construction & Demolition Waste (C&D waste) Management. He mentioned that C&D waste and other inert materials (e.g. drain silt, dust and grit from road sweeping) is significant about a third of the total municipal solid waste. The working group suggested that a sustainable solid waste management system for C&D waste be adopted which may include the following:
 - Separate line of collection and transportation of C&D waste may be planned.
 - ii) Separate storage of C&D waste for different categories of generators (household, institutional, infrastructure) be planned.
 - iii) Planning for better utilization (even fine material can be used as inert daily cover at sanitary landfill) of C&D waste be prepared.
 - iv) Separation of C&D waste at source and its recycling be planned.
 - v) Land filling by C&D waste be prohibited.
 - vi) A mechanism be developed for marketing the products from C&D waste.
 - vii) Concrete bricks and paving blocks made for C&D waste be promoted.
 - viii) Guidelines may be for developing C&D waste management.

The detailed recommendations would be finalized taking all the comments/suggestions in view

- 7. The report of the working group on packaging waste management was presented by Dr. Shaymla Mani. Packaging plays an important role in the supply chain as a strategic tool for business development and improved business performance under the present and future needs. The working group expressed concern about littering caused by used packs and their disposal. An inefficient, haphazard collection and recycling system which is being practiced for packaging waste is an environmental nuisance. This has serious ramifications on its effect on environment and also on human health. Recycling has been suggested as one of the main solutions for handling the packaging waste. The recommendations of the working group include the following:
 - Study be initiated for estimating the magnitude and characteristics of each type of packaging material in the waste stream, major sources of waste generation and the existing disposal system being practiced.
 - A policy on packaging waste management system with the participation of all stakeholders be developed.
 - iii) Studies on a framework for promoting clean recycling Policy for packaging waste be developed by using Life Cycle Analysis (LCA).

- iv) Guidelines / rules be brought out so as to involve large scale retailers and user industries from Pharma, Processed Food industries etc. BIS may be requested to frame such a standard
- v) Public awareness programme be intensified.

The detailed recommendations would be finalized taking all the comments/suggestions in view

- 8. Dr. B.P. Shukla from CPCB gave the presentation of the working group on Hazardous Waste Management, Biomedical waste Management and E.-waste Management. Dr. Shukla mentioned that Gujarat (about 29%), Maharashtra (about 25%) and Andhra Pradesh (about 9%) are the top three Hazardous Waste generating States. Chhattisgarh (about 5%), Rajasthan, West Bengal and Tamil Nadu (about 4 %) are found as major generators of hazardous waste. These seven States together, are generating about 80 % of country's total hazardous waste. 64 sites of Common Hazardous Waste Transportation, Storage and Disposal Sites (TSDFs) identified in various States/UTs, out of which 35 sites have been notified. The working group made recommendations which include the following:
 - i) Waste avoidance and waste minimization at source be promoted by reuse, recovery and recycling of hazardous waste.
 - There is a need for updating & periodic review of inventory of hazardous waste generation including on-line tracking system for movement of hazardous waste.
 - iii) Available technologies such as cement kilns be promoted for hazardous waste co-processing.
 - iv) Waste generation be persuaded for setting up of Common Treatment, Storage and Disposal Facilities (TSDF).
 - The issue of interstate transportation of hazardous waste need to be addressed.
 - vi) Remediation of illegal dump sites may be made mandatory.
 - vii) Harmonization of EXIM regulations and training of Custom Department personnel may be intensified.
 - viii) Handling and management of hazardous waste during ship dismantling be regulated.
 - ix) The infrastructure of regulatory bodies need to be strengthened.

The detailed recommendations would be finalized taking all the comments/suggestions in view.

- 9. Biomedical Waste Management: The working group on Biomedical Waste Management made recommendations which include the following:
 - Responsibility of operator of a Facility need to be clearly defined.
 - The Role of responsible regulatory authorities except Prescribed Authority needs to be presented.
 - The generator/occupier of the biomedical waste be allowed to have onsite treatment equipments like autoclaving /microwaving /shredder as well as incinerator;
 - A national inventory on bio-medical waste be carried out.
 - Penalty for violations may be proposed in the Amendments to the Rules.

- MoH & FW may be requested to consider for grant of license to those obtained authorization under the BMW Rules.
- The Regulatory Bodies be strengthened.
- 10. The working group on E-waste Management made recommendations which include legislative, administrative and technological measures encompassing the following:
 - Strengthening of Legislative Frame Work.
 - Developing mechanism to check illegal import of the E-waste.
 - Making Legal Provisions for Extended Producer Responsibility.
 - Phasing out hazardous substances in EEE to the extent possible.
 - Re-visiting import provisions in SEZ Regulation.
 - Regulating Charity Goods including the old computers.
 - Banning Import of CRT.
 - Regulating Import based on longer usable life time.
 - Assigning Responsibilities to various stake holders.
 - International Practices for Management of E-Waste.

The detailed recommendations would be finalized taking all the comments/suggestions in view

- 11. A Drafting Committee was constituted to finalise the report of the Committee. The Drafting Committee would consist of the following members:
 - i) Shri R. H. Khwaja, Additional Secretary, MoEF
 - ii) Shri Rajiv Gauba, Joint Secretary, MoEF
 - iii) Shri R G Viswanathan, Principal Director, Comptroller and Auditor General of India
 - iv) Dr. A. B. Akolkar, Additional Director, CPCB
 - v) Dr. Manoranjan Hota, Additional Director, MoEF
- 12. It was agreed that the draft Report of the Committee would be ready within next fortnight for consideration in the next meeting of the Committee.

The meeting ended with a vote of thanks to the Chair.

List of Participants

- 1. Shri R. H. Khwaja, Additional Secretary, Ministry of Environment & Forests---in the Chair
- 2. Shri Ravi Agarwal, Director, Toxic link, Indian Institute of Packaging, Regd. & Head Office, Indian Institute of Packaging, H2 (Ground Floor), Jungpura Extension, New Delhi 110 014, Ph: 24331414, E-mail: ravig64@gmail.com
- 3. Shri Satish Sinha, Association Director, Toxic link, Indian Institute of Packaging, Regd. & Head Office, Indian Institute of Packaging, H2 (Ground Floor), Jungpura Extension, New Delhi 110 014, E-mail: satish@toxicslink.org
- 4. Shri A.K. Dhussa, Director, Ministry of New and Renewable Energy, Block-14, CGO Complex, Lodhi Road, New Delhi-110 003, Ph: 24364188, E-mail: akdhussa@nic.in
- 5. Dr. S.K. Nigam, Senior Scientist, Central Pollution Control board, Parivesh Bhawan, CBD-cum-Office Complex East Arjun Nagar Delhi-110032, Ph. 43102453, E-mail: ssskn.cpcb@nic.in
- 6. Dr. A.B. Akolkar, Additional Director, Central Pollution Control board, Parivesh Bhawan, CBD-cum-Office Complex East Arjun Nagar Delhi-110032, Ph. 22307863
- 7. Shri M.K. Choudhury, Central Pollution Control board, Parivesh Bhawan, CBD-cum-Office Complex East Arjun Nagar Delhi-110032, Mob: 9868129126
- 8. Shri B.K. Sharma, Central Pollution Control board, Parivesh Bhawan, CBD-cum-Office Complex East Arjun Nagar Delhi-110032, Mob: 9868278276
- 9. Shri Anand Kumar, EE, Central Pollution Control board, Parivesh Bhawan, CBD-cum-Office Complex East Arjun Nagar Delhi-110032, Mob: 9818255368
- Shri B.P. Shukla, Additional Director, HWM Division, Central Pollution Control board, Parivesh Bhawan, CBD-cum-Office Complex East Arjun Nagar Delhi-110032, Ph: 22307643, E-mail: bpshukla9@yahoo.com
- 11. Shri Chandra Babu, EE, Central Pollution Control board, Parivesh Bhawan, CBD-cum-Office Complex East Arjun Nagar Delhi-110032, Ph. 43102322, Mob. 9868278803, E-mail: jcb.cpcb@nic.in
- 12. Shri M. Dhinadhayalan, Assistant Adviser (PHE), Central Public Health & Environmental Engineering Organization (CPHEEO), Ministry of Urban Development, Room No. 658 'A, Nirman Bhawan, New Delh-110011, Ph: 23062418, E-mail: mdheen@gmail.com
- 13. Shri M. Subba Rao, Director, HSMD, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi-110003, Ph. 24361410, Email: wowsubbarao@yahoo.co.in
- 14. Dr. Saroj, Director, HSMD, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi-110003, Ph: 24364067
- 15. Dr. (Mrs.) L. Sonar, DDG (P), Directorate General of Health Services, Ministry of Health and Family Welfare, Mulana Azad Road, Nirman Bhawan, New Delhi- 110 011
- 16. Dr. Shyamala Mani, Programe Director, Centre for Environment Education (CEE), Thaltej Tekra, Ahmedabad-380054, Gujarat, Mob. 9811428447

- 17. Sh. Rajiv Dhar, Director, Director & CEO, Indian Institute of Packaging, Regd. & Head Office, Indian Institute of Packaging, E-2, MIDC Area, Andheri (E), Mumbai-93, Mob: 9322841702
- 18. Dr. Chetna, Department of Environment, Govt. of India, Mob: 9717593542, E-mail: chetna_anand@rediffmail.com
- 19. Dr. Anil Kumar, Director, Department of Environment, Govt. of India, Mobi 9717593505, E-mail: dr.anilkumardelhi@gmail.com
- 20. Dr. Ajay Kumar, Assistant Director & Chief, Shriram Institute for Industrial Research 19, University Road, New Delhi-110007, Mob. 9891955044, E-Mail: aktyagi@shriraminstitute.org
- 21. Dr. Sanjay Rajpøt, Assistant Director, Shriram Institute for Industrial Research 19, University Road, New Delhi-110007, Mob. 9868144455, E-Mail: rajput@shriraminstitute.org
- 22. Dr. U.K. Niyogi, Joint Director, Shriram Institute for Industrial Research 19, University Road, New Delhi-110007, Mob: 9871859998, E-Mail: ukniyogi@shriraminstitute.org
- 23. Ms. Namita Prasad, Director, Environment Audit, CAG of India, Mob. 9868184426, E-mail:
- 24. Dr. N.B. Mazumdar, Senior Technical Advisor, IL&FS, Waste Management & Urban Services Ltd. Mob: 9810899043, E-mail: nbmazmdar@gmail.com
- 25. Shri R. G. Viswanathan, Principal Director, Principal Director of Audit, Scientific Departments, A.G.C.R. Building, I.P. Estate, New Delhi 110 002, Mob. 9810268790, Email: viswanathan.rg@gmail.com
- 26. Dr. R. K. Khandal, Director, Shriram Institute for Industrial Research 19, University Road, New Delhi-110007, Tel (011) 27667267, 27667850 E-Mail: rkhandal@shriraminstitute.org
- 27. Shri Dharmendra, Chairperson, Delhi Pollution Control Committee, Government of N.C.T. Delhi, 4th Floor, ISBT Building, Kashmere Gate, Delhi-110006, Ph: 23392108
- 28. Dr. Manoranjan Hota, Additional Director, MoEF
- 29. Shri Shard, Deputy Director, MoEF

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F. No. 12-19/2008- H5MD
Government of India
Ministry of Environment & Forests
HSM Division

Paryavaran Bhavan CGO Complex, Lodi Road New Delhi-110 003

Date: 18th November 2008

OFFICE ORDER

Subject: Working Groups under the Committee to Evolve Roadmap for Management of Wastes in the Country.

As decided in the First Meeting of the Committee to Evolve a Roadmap for Management of Wastes in the Country held on 21st October 2008 under the Chairmanship of Shri R.H. Khwaja, Additional Secretary, Ministry of Environment & Forests (MoEF), the following two Working Groups are hereby constituted comprising of the Members as below-

- (1) Working Group on MSW, Plastic, Demolition and Packaging Waste
 - (i) Shri J.K. Dadoo

Chairman

(ii) Shri K.B. Sarabhai, CEE

- Member
- (iii) Shri Raj G. Viswanathan, CAG of India
- Member
- (iv) Representative of Ministry of Urban Development-
- Member

(v) Representative of CPCB

Member Convener

Member Convener

- (2) Working Group on Bio-Medical, Hazardous and E-Waste
 - (i) The Member Secretary, CPCB

Chairman L

(ii) Prof. S.P. Malhotra, NML

Member

(iii) Shri Ravi Agarwal, Toxic Links

Member

(iv) Ms. Namita Prasad, CAG of India

.....

(v) Representative of CPCB

- Member
- 2. The TORs for the Working Groups will be as follows-
 - (i) Review the existing regulatory system on waste management including regulatory mechanism.
 - (ii) Review the recommendations of Principal Director of Audit in its Report on Performance Audit of Management of Waste in India' in the light of existing system.

Contd.

- (iii) Review the International systems of waste management as provided in the Report.
- (iv) Provide concrete action points along with action plan to implement the recommendation of the CAG.
- (v) Any other suggestions
- 3. The Working Group shall submit its report within two months from the date of constitution.
- 4. The Central Pollution Control Board (CPCB) shall provide the necessary logistic support along with the TA/DA and Sitting fee to the non-official members of the Working Groups for attending meetings as per the Government of India rules.
- 5. The Working Groups may co-opt industry representatives or other experts, if required.
- 4. Meetings of the Working Groups shall be organized by CPCB at the convenient venue and time for the Working Groups.

This is issued with the approval of the Additional Secretary (RHK).

(Sanchita Jindal)
Additional Director

To,

The Chairman and all Members of the Committee and Working Groups.

Copy to:

PPS to AS (RHK)/ PS to Adviser (GKP)/PS to JS (RKV)/ Dir (SR)/ DD(S)/SO (HSMD)/IFD/GC/Spare Copy.

(Sanchita Jindal)
Additional Director

List of the Members of the Committee to Evolve a Roadmap for Management of Wastes in the Country and Members of the Working Groups

1. Mr. J. K. Dadoo

Chairperson
Delhi Pollution Control Board
Room No.601, C-Wing
Delhi Secretariat
I.P. Estate
New Delhi-110 002

2. Dr. S.D. Makhijani Member Secretary Central Pollution Control Board Parivesh Bhawan East Arjun Nagar

Shahdara

3. Shri Rai G. Viswan

Delhi-110 032

Shri Raj G. Viswanathan
Principal Director
Principal Director of Audit
Scientific Departments
A.G.C.R. Buidling, T.P. Estate
New Delhi-110 002

4. Mr. K. V. Sarabhai

Director Centre for Environment Education (CEE) Thaltej Tekra Ahmedabad 380 054 Gujarat

5. Mr. Ravi Agarwal

Diector, Toxic Link H2 (Ground Floor) Jungpura Extension New Delhi 110 014

6. Mr. P. C. Tyagi

Former Chairman, CPCB Delhi 48-B, Green View Apartments Sector-15-A Noida-201301 Uttar Pradesh

- 7. Prof. S. P. Mehrotra
 Director
 National Metallurgical Library (NML)
 Jamshedpur-831007
 Jharkhand
- 8. Mr. M. Sankarnarayanan
 Deputy Adviser (PHE)
 Ministry of Urban Development
 CPHEEO, Nirman Bhawan
 New Delhi- 110 011
- 9. Ms Namita Prasad
 Principal Director of Audit
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