Indian Centre for Plastics in the Environment

Eco-Echoes

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ICPE NEWSLETTER

Anti-litter Rules on the Way

In this Issue

Indian Centre for Plastics in the Environment

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Forthcoming Events

ET, ICU and Nemex 2006

16-18 May, 2006

Birmingham, U.K.

ET status has a the U.K.'s largest environmental technology management service exhibition.

ICU is the only event of its kind for all contaminated land industry in the U.K. It provides visitors with an essential forum to network and attend a wide range of special events including the high profile conference & seminar.

NPE 2006

The International Plastics Showcase

19-23 June, 2006

Chicago, Illinois USA

NPE 2006 takes place in Chicago, the heart of the $330 billion a year U.S. plastics marketplace and a hub of trade with South America, Europe and Asia.

For details:
www.npe.org/world

Plexpo INDIA 2007
PROSPERITY THROUGH PLASTICS

4th National Plastics & Packaging Exhibition

25-28 January, 2007

Ahmedabad

Plexpo India 2007, 4th National Plastics & Packaging Exhibition to be held from 25th-28th January, 2007 follows the stupendous success of previously organized three Plexpo exhibitions.

The exhibition will showcase plastics raw materials masterbatches, machineries, moulds, dyes, ancillary equipments, packaging materials and various plastic end products, etc.

Organized by:
Gujarat State Plastics Manufacturers Association
E-mail: plexpoindia@gspma.org
Website: www.gspma.org

The Municipal Corporation of Greater Mumbai (MCGM) initiates Anti-littering Rules

The Municipal Corporation of Greater Mumbai has initiated a campaign to remove community solid waste storage centres from public roads in phases by providing services for point-to-point collection of segregated Solid Waste by bell-ringing vehicles at fixed times.

The MCGM hereby notifies the following rules to be known as "The Municipal Corporation of Greater Mumbai Municipal Solid Waste (Prohibition of Littering and Regulation of Segregation Storage, Delivery and Collection) Rules 2006" under Section 368 of the Mumbai Municipal Corporation Act, 1888.

Since the last 5 or 6 years the plastics industry has been saying plastics per se should not be blamed for the waste nuisance, it is basically LITTER. The industry has been asking for strong Anti-Litter laws and implementation in India as it is believed that if used bags are not littered, the environmental nuisance in cities could be considerably reduced in India.

The Municipal Corporation of Greater Mumbai has now drafted the Anti-Litter Rules and the authorities have invited response from NGOs and concerned citizens.

A meeting was held on 22nd Dec. 2005.

The summary points of the meeting were as below:

1. NGO and MCGM's partnership would be brought under the recognition and acceptance by the political representatives for true success.
2. A Management System for managing the Solid Waste should be established.
3. Chronic areas (of problems) are to be identified and intense efforts should be made for resolving the problems for those areas.
4. More awareness campaigns are important rather than evolving procedures for enforcing fines/punishments.
5. Involving workers' unions (of MCGM) in the decision making process is very important.
6. More than 60% area is covered by slums. Special measures are required for creating infrastructure in those areas.
7. Providing cycle van or hand-trollies in slum areas for waste collection. Fund to be organized.
8. The system for employing contractual service arrangement in specific areas was discussed and agreed to be implemented on experimental basis.
9. Dattak Vasti Yojna programme is to be encouraged in more slum areas.
10. Also need to increase the frequency of street sweeping, was discussed.
11. Need to change the reporting system of the sweepers was discussed. It was suggested that instead of all sweepers of the area reporting to the supervisor at the point, the supervisor should visit the whole area and take note of the sweepers work.
12. The procedure of levying the fine was discussed. It was felt that collection of fines could not be bestowed to the NGO group as it comes under the purview of public accounts committee of the government authority.

However, possibility of employing contractors by going through tendering procedures, etc., was also discussed.

Abstracts from the Draft Notice of Municipal Corporation of Greater Mumbai

- No one shall litter or dirty any public place, and each citizen will be responsible to keep the city clean. Failure to do so shall attract fines.
- All waste to be segregated by the generator. Failure to segregate shall invite fines.
- All waste to be held with waste-generator or at designated spots till time of picking up by MCGM vehicle that uses the bell-ringing concept.
- Citizens to be urged to compost biodegradable waste. MCGM will provide infrastructure as well as incentives for such initiatives.
- A formal close and sustained association between MCGM and civil society to lead to an overall clean city. The existing structure of ALM's/local citizen's organizations will be strengthened and systems of citizens' reporting and monitoring will be established.
- MCGM will ensure that all the systems to support and facilitate the citizen's responsibility (as generator) are also simultaneously in place.

Application of the Rules:

These rules shall apply to every public place within the limits of the Municipal Corporation of Greater Mumbai, to every generator of municipal solid waste and to every premise under the ownership or occupation of any person within the limits of the Municipal Corporation of Greater Mumbai.

Prohibition of Littering:

In Phase 1 of the implementation of the Rules:

- On and after the date on which these rules are published in the newspapers, no person shall throw, deposit or cause to be thrown or deposited any waste whether liquid, semi-solid or solid including sewage and waste water upon or in any public place, except in a manner provided for in these rules, or in any other rules framed under the Environment (Protection) Act, 1986 or the Mumbai Municipal Corporation Act, 1888 or under any other law which may be in force.
- On and after the date on which these rules are published in the newspapers, no person shall throw any type of waste into any type of water body (natural or man-made) including "pooja" articles.
- On and after the date on which these rules are published in the newspapers, no person shall spit, urinate, defecate, feed groups of animals or birds, wash vehicles/utensils or any other object in any public place except in such

List of different types of municipal solid waste

Biodegradable	Recyclable	Non-recyclable	
		Hazardous	Non-hazardous
• Kitchen Waste Incl: Tea leaves, Egg shells, Fruit and Vegetable peels • Meat • Bones • Flowers • Garden and Animal litter • Leaf litter • Soiled paper • House dust after cleaning • Coconut shells • Sanitary pads/ disposable diapers • Ashes	• Newspapers • Paper books and magazines • Glass • Wire • Metal objects • Plastics • Cloth rags • Leather • Rexine • Rubber • Wood/Furniture • Packaging	• Fluorescent Tubes, and CFL's • Spray/aerosol cans • Fertilizers and pesticide containers • Car batteries • Cells • Bleaches and household kitchen and drain cleaning agents • Chemicals and solvents and their empty containers • Chemical-based cosmetic items • Medicines, discarded • Pints, oils, lubricants, glues, thinners and their containers • Styrofoam • Thermometers • Photographic chemicals	• Shoe polish • Mattress and sofa foam • Thermocol

public facilities/conveniences specifically provided for any of these purposes.

- On and after the date on which these rules are published in the newspapers, every person shall ensure any public place in front of or adjacent to any premises owned or occupied by him including footpath and open drain/gutter is free of any waste whether liquid, semi-solid or solid including sewage and waste water and every such person shall provide an adequate number of litter bins within such premises and ensure that there are adequate connections for drainage of waste water into the public drainage system.

Segregation, storage, delivery and collection of Municipal solid Waste

In Phase 1 of the Implementation of these Rules:

- On and after the date of publication of these rules in the newspapers, every generator of municipal solid waste in Greater Mumbai shall store and deliver municipal solid waste in a segregated manner in three different groups, viz., biodegradable waste, recyclable waste and non-recyclable waste in accordance with the procedure laid down in Schedule I. Further non-recyclable waste is also to be separated into i) hazardous, and ii) non-hazardous waste, and stored and delivered to MCGM separately.
- Untreated biomedical waste, hazardous industrial waste, construction and demolition waste, shall not be mixed with any of the three groups of municipal solid waste specified above and such waste shall be governed by the rules separately framed for the management and handling of such waste under the Environment Protection Act, 1986, and/or the Mumbai Municipal Corporation Act, 1888.

Citizens' Empowerment

The effective implementation of these Bye-Laws required the active participation of citizens with MCGM's support. Hence:

- Any registered ALM, NGO, RWA, CBO, citizens' group or elected public representative that is willing to take the responsibility of keeping an area clean will be empowered by MCGM to do so. This will include enforcement of the anti-littering laws as well as segregation and delivery of recyclable and non-recyclable waste to MCGM.
- Citizens and citizens' groups are also encouraged to suggest to MCGM "area improvement/beautification scheme" for their locality that when implemented, along with the cleanliness of locality, will contribute to the upliftment of that neighbourhood. MCGM will provide active support (including funds) for the implementation of the schemes.
- The NGO Council and MCGM will jointly review the effective implementation of these rules, at least twice a year, and take appropriate steps to ensure course correction such as evaluation of MCGM's active support to the rules, citizens' response and participation, revision of fines, evaluation of incentives, etc.

Mandatory Support by MCGM

- MCGM will provide incentives to the generator of waste for reducing waste by composting and recycling, and these incentives will be based on the savings made by MCGM by reduction of the volume of garbage to be transported. Schedule and specifications for the incentives will be detailed through a separate document available at all Ward Offices.
- Generators of waste are urged to compost their biodegradable waste in-situ, and use the compost created from segregated biodegradable waste at the source for the purpose of gardening and greening of their individual premises and surroundings. MCGM will undertake to purchase any extra compost, if available, from the generator, at a specified fixed cost as notified from time to time.
- MCGM will set up composting units within the landfill or at any notified suitable area, for the further processing of the biodegradable waste that is collected.

Recyclable municipal solid waste shall be stored in covered bins and/or secured bags and delivered by every generator of waste to:

- any scrap dealer, recycler, authorized rag pickers' organizations, or any other person, or
- the community (dry waste) storage centres notified by the Municipal Commissioner, or
- to the dry waste collection vehicle which shall be provided weekly by the Municipal Corporation at such spots and at such times as may be notified by the Municipal Commissioner from time to time for collection of recyclable waste.

In order to regulate the sorting of the recycled waste that is col-

lected, MCGM will notify as many ward-wise recyclable waste sorting centres as possible, where the recyclable solid waste is transported, and then sorted out by registered rag pickers' organization/recyclers' association. These recyclable waste sorting centres will be on MCGM land, and will be manned/regulated by registered rag-pickers organizations/recyclers' associations.

Exceptions

1. For a limited number of festive occasions, (list as notified by the State Government), there will be relaxation by MCGM in the collection of fines for littering only for a limited period (not exceeding 24 hours), and MCGM will take the required measures to clear the litter generated in this period.
2. For large gatherings of people in public places for any reason (including for exhibitions, circuses, fairs, political rallies, religious, socio-cultural events, protests and demonstrations, etc.) where Police and MCGM permission is sought for the gathering/event, it will be the responsibility of the organizer of the Event to ensure the cleanliness of that area as well as all appurtenant areas. A Refundable Cleanliness Deposit will be taken from the Organizer, for the duration of the Event. This deposit will be refunded on the completion of the event and it is noted that the said public place has been restored back to a clean state.

(Note: In place of MCGM, the local Statutory Body such as MHADA, Port Trust, Railways, etc., will also be required to collect such a cleanliness deposit, for use of their land.)

ICPE has studied the draft of anti-litter rules, and made the following comments:

Disposal method of waste at the waste generating point

On this issue, we suggest to implement the Mandatory Recommendation made by the Committee constituted by the Hon. Supreme Court of India in the Report of Solid Waste Management in Class I Cities in India – (Chapter 3, pp26):

"Waste should be stored at the source of waste generation in two BINS/BAGS, one for food waste/biodegradable waste and another for recyclable waste such as papers, plastics, metal, glass, rags, etc. Waste such as used batteries, containers for chemicals and pesticides, discarded medicines and other toxic or hazardous household waste (Annexure E), if and when produced, should be kept separately from the above two streams of waste."

On use of plastic bags for collection and disposal of waste

(i) Worldwide plastic trash bags/garbage bags are used for collection and transportation of waste. This is cleanest way of handling wet waste.

(ii) Measures are to be taken not to dump the wet waste in the landfill area along with these trash/garbage bags. These bags are to be recovered for recycling into suitable application.

(iii) Habit of using plastic carry bags for wrapping food waste and throwing into the roadside/common Municipality bin especially in the slum areas, is to be discouraged by suitable awareness programmes.

Some more comments

List of some domestic hazardous waste (from Report of the Committee constituted by Supreme Court of India)

- Aerosol cans
- Batteries from flashlights and button cells
- Bleaches and household kitchen and drain cleaning agents
- Car batteries, oil filters and car care products and consumables
- Chemicals and solvents and their empty containers
- Cosmetic items, chemical-based
- Injection needles and syringes after destroying them both
- Insecticides and their empty containers
- Light bulbs, tube-lights and compact fluorescent lamps (CFL)
- Medicines, discarded
- Paints, oil, lubricants, glues, thinners and their empty containers
- Pesticides and herbicides and their empty containers
- Photographic chemicals
- Styrofoam and soft foam packaging from new equipment
- Thermometers and mercury-containing products

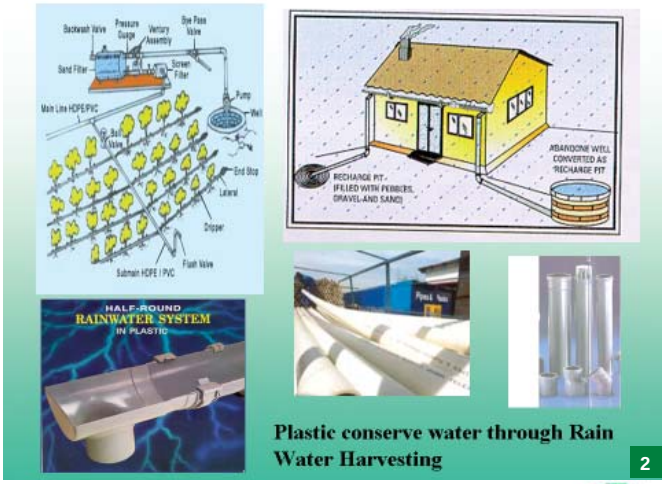
Plastics and the Environment – An Assessment and Road Map

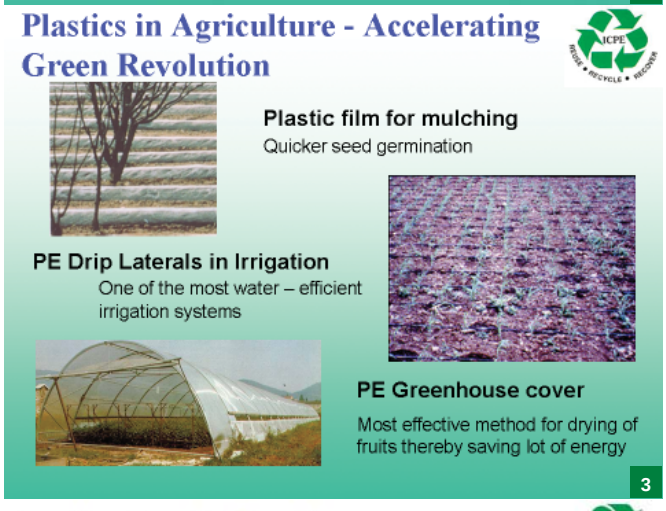
ICPE led an Industry Delegation and made a presentation to the Ministry of Environment and Forests on 21st Nov, 2005 on various issues of Plastics in the Environment.

Important ones included:

- Requirement of Uniform Laws and Rules for the entire country on thickness of Plastics Carry Bags.
- Exclusion of 'Plastics' from the list of Hazardous Waste.
- Review on use of Biodegradable Plastic Bags for the collection of Biomedical Waste.

Some of the slides are reproduced below:





Energy requirements for Production of Materials Used in Packaging

Material	kWh / kg
Aluminium	74.1
Steel	13.9
Glass	7.9
Paper	7.1
Plastics	3.1

Source: I.Boustead and G.F.Hancock- Energy & Packaging
J.E.Juliet-Plast. Engg.

Plastics – Least Energy Consuming materials...

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Plastics classified as Food Contact Substances

Food & Drug Administration, USA

- All current regulated plastics have been found to be well within the margin of safety.

Source : FDA Consumer, November – December 2002

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Despite These Advantages...

9

Plastics Bags/Packaging Under Scanner

- Blamed for Environmental problems
- Alleged as Hazard to Human and Animal Life.
- Termed as major cause of choking drains / floods
- Different states have different Regulations Relating to its Use

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Myths & Reality

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Myth

Plastic Bags Choke Drains in Monsoon Resulting in Floods

Reality

- The root cause is dumping of all types of waste by public into open sewers & drains
- Plastics form < 1% of Municipal Solid Waste (MSW) on an average. Figure for Indian Metros is reported to be around 3%.
- Waste materials like metal cans, bricks, mortar, waste tyres, discarded footwear and clothes dumped in drains & sewers leads to choking

Solution lies in proper waste management & timely cleaning of sewers & drains before monsoons

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Myth

Plastics are Not Recyclable

Reality

- Plastics are 100% recyclable
- In our country, 60% of Plastics is recycled compared to 22% of World avg (Others are of long life span)

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Myth

Plastics are Toxic and Not Safe

Reality

- Food and drug authorities Worldwide permit the use of different plastics in various applications
- Plastics are used world over for personal care, packaging of food products, medicine in-vitro medical and child care products
- Tooth brush,milk pouch, edible oil, ice cream blister packing for tablets IV & blood bags heart valve toys,diapers Etc

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Myth

Plastics Deplete Resources

Reality

- Plastics is the most resource efficient Packaging material

To pack 500 Grams of Coffee	
Packaging Material	weight (Grms)
Glass	500
Tin	130
Plastics	12

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Myth

Plastics Cause Litter

Reality

- Most of the countries adopted Twin Bin culture to segregate Dry and Wet Waste
- Local government to make arrangement for proper segregation system
- Infrastructure and system support for proper waste management
- National law on segregation is not being implemented
- Segregation facilitates proper recycling

Plastics Do Not Litter But We Do !!

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Myth

Plastic Bags have No Reuse

Reality

- Plastics bags are reused for temporary storage and repackaging.
- The recycled plastics are used in barsati film, mats, many low-end moulded articles and also used for construction of Tar Roads.

REUSE---------- RECYCLE----------> RECOVER

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What is the Real Issue ?

We enjoy the convenience of plastics but are not willing to take responsibility of proper disposal

- The society has to be properly informed
- Education of waste management of plastics

What to throw?
Where to throw?

What to do with the collected plastics waste?

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Material Recovery

Recycling - The Indian Solution

Converting to value added end products..

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Huge Value addition

Plastic Waste

Box strapping

Plastic Footwear

20

Huge Value addition

Milk Pouches

Barsati Film

Plastic Woven Sacks

Niwar patti

21

Huge Value addition

Battery Cases

Luggage

Plastic Carry Bags

Mats

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PVC Footwear to PVC Footwear

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Other Alternatives

- Manufacture of Industrial Fuel from all types of Plastics Waste
- Construction of Tar Road with Waste of Plastics Bags

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The laboratory of Prof. Dr. Alka Zadgaonkar

25

Plastic Waste for Manufacture Industrial Fuel

26

Mixing of plastics waste with stone –Asphalt Plant, BMC

27

View of the road – 6 months after completion

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Waste Management at Mumbai
ICPE-NAGAR-SMS-FORCE-BMC Project

Gold in garbage at Cuffe Parade

Last week, three months' functioning of Cleansweep, a pilot project in "A" ward, was assessed by its managers. Some gladdying results were certainly available. But the reflection also turned up some basics that spark a degree of discomfort. Since the initiative is meant to provide experience to a progressive citywide roll-out, its findings are worth looking at with care.

As the name suggests, the project addresses solid waste management, starting with segregation of domestic waste. It was once meant to cover all of the Parade. 20 buildings fall in with the practice. Five did not. Non-collection brought four of the five into the fold at once. One is still errant. Whereas the project is replicated elsewhere, fines and non-collection must be a part of the project design.

3. The BMC must change to earn citizen cooperation. It is still run by unionised workers, or fear of union reaction, and lax supervision. There is irregularity of attendance and work output, non-performance on premises. In general, citizens have a right to walk away from work that the BMC should legi-

- **Pilot project with NGO's - Integrated Municipal Waste Management.**
- **Working at 5 locations**

Segregation of Household Waste ⇒ Transport to designated place
Sorting ⇒ Recycling

.... Cleanliness begins at Home

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Segregation of Waste at Source...

Rag pickers with van

Dry waste being carried for loading into Municipality van

Loading of dry waste in Municipality van

Dry waste at housing colonies

Municipality van with dry waste on way to segregation area

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Segregation of Waste at Source

Segregation of dry waste

Storing of segregation dry waste in secured place

Packing of segregated dry waste

Segregation of dry waste being weighed and sold to recyclers / traders

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Wealth from Waste

Solid Waste Management Projects in Mumbai Wards
4 Wards under Project: A, D, F (North) and S
Comparative Assessment of the Segregation Activities during 2003 & 2004

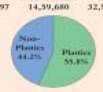
Total quantity and value of Dry Wastes collected and segregated in 2003 and 2004 in the ICPE monitored projects in Mumbai Wards were analysed and the figures are given below:

2003

Weight (kg)			Value Earned (Rs.)		
Plastics	Non-Plastics	Total	Plastics	Non-Plastics	Total
2,17,161	4,06,483	6,23,644	14,19,759	9,40,766	23,60,525

2004

Weight (kg)			Value Earned (Rs.)		
Plastics	Non-Plastics	Total	Plastics	Non-Plastics	Total
2,46,323	6,15,803	8,62,126	18,39,997	14,39,680	32,99,677



Observations:
a) There is a significant improvement in the annual figures of 2004 compared to that in 2003.
b) The average income for the rag pickers has gone up from Rs. 3,396 per month in 2003 to Rs. 4,741 per month in 2004 (Total number of rag pickers is 58).

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Matheran
Solid Waste Management Project

- A SWM Project initiated by ICPE in the eco-sensitive zone of Matheran in August 2002.
- To tackle the problem of disposal of Plastics Solid Wastes
- ICPE took up the initiative to provide assistance to the Matheran Municipal Council and presented a solution to their waste management problems
- Committee was formed with representatives from Matheran Bachao Samiti, ICPE, MCGM and Bisleri.
- ICPE also conducted an awareness programme in the Municipal Schools to educate the locals, hoteliers, shopkeepers on community awareness, environment and waste management.

Matheran is now clean and free of garbage

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The Mahabaleshwar Project

- **ICPE Initiated a Waste Management Program Eco-Sensitive Zone of Panchgani**
- **ICPE actions:**
  - **Awareness on proper waste disposal methods**
  - **Display boards / Free Waste Bins / Jumbo Bags**
  - **Arrangement for Disposal of Dry Waste thru' Waste Dealers**
  - **ICPE is involving local associations and private bodies for a joint project in this region.**

Replicate the Matheran success

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Submissions...

Uniformity in rules based on MoEF Notifications to encompass

- **Thickness**
- **Size**
- **Usage rule**
- **Other characteristics**

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Submissions...

- **In the present Hazardous Waste (Management and Handling) Rules, 2003, all Waste of Plastics Process considered as Hazardous**

Whereas, under Basel Convention, all Plastics Waste (except PVC) is considered non-Hazardous

(Decision on PVC pending)

Notification Needs Appropriate Amendment

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Submissions

- **Use of Biodegradable Bags for Hospital Waste – Needs Review**
  (Hospital Wastes are incinerated or chemically treated)
- **Plastics Processing to be Classified under Green Category**

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Support Needed from MoEF for the following Projects

- **Use of Waste Plastics for Tar Road**
- **Incineration for Power Generation**
- **Fuel from Low-End & Multilayer Plastics**
- **Recovery of Energy from Waste Plastics**

ICPE COMMITTED FOR DEVELOPMENT

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PVC and the Basel Convention

Origin of the Convention

In the late 1980s, a tightening of environmental regulations in industrialized countries led to a dramatic rise in the cost of hazardous waste disposal. Searching for cheaper ways to get rid of the wastes, "toxic traders" began shipping hazardous waste to developing countries and to Eastern Europe. When this activity was revealed, international outrage led to the drafting and adoption of the Basel Convention.

Background

Initially there was concern that plastics wastes needed to be controlled by the Basel Convention. During the twelfth session of the Technical Working Group of the Basel Convention in February 1997 it was recognized that plastic wastes including chlorinated polymer and copolymers wastes do not have intrinsic hazard characteristics and that any hazardous effects that may arise are from the disposal of these wastes. At that meeting it was decided that non-halogenated polymer wastes and some fluorinated polymer wastes should be placed on the Annex IX – non hazardous (B3010). A consensus could not be reached on PVC wastes due to concerns of miss-management of these wastes. During the fourteenth session of the Technical Working Group, held in Pretoria, in November 1998, it was reviewed that PVC wastes and PVC coated cables have been placed on list C. This is simply a working list used by the Technical Working Group for considering the placement of wastes on either Annex VIII (list A) or Annex IX (list B) and has no other status.

Due to the divergent opinions on the hazardousness of PVC wastes and PVC coated cables and stated positions of some countries mean that it has not yet proved possible to achieve a consensus within the Technical Working Group. But at this stage no single country has informed the Basel Secretariat that it has included PVC wastes in its national definitions of hazardous waste. Nevertheless some consider they should be listed on Annex VIII-hazardous wastes.

One problem that had been identified refers specifically to the treatment of PVC wastes and PVC coated cables. It is agreed that burning could result in the production of dioxins and, in the absence of control, to their release to the environment. This has been given as a reason for proposing the placing PVC wastes and PVC coated cables on Annex VIII (list A). However, placement of a waste on lists contained in Annex VIII or IX cannot be due to its management practices, according to the principles of classification adopted in the Basel Convention, which are intrinsic characteristics.

The evaluation of the hazardousness of PVC wastes and PVC coated cables in terms of the Convention seems to be premature, at that time, with respect both to the completeness of the scientific information available and the Technical Working Group's own evaluation of the application of the hazard classes H10 to H13.

The Secretariat, in cooperation with other experts as necessary, was requested to prepare a view of the available and forthcoming scientific information and provide an independent summary report for Technical Working Group.

A proposal to re-examine the listing of PVC wastes and PVC coated cables should be reconsidered at a future meeting of the Technical Working Group only when the results of a review of the available and forthcoming scientific information are ready and the Technical Working Group's review of the H characteristics is concluded as far as these characteristics are necessary to conclude the classification.

During the sixth Conference of Parties in December 2002, the Technical Guidelines for the Identification and Environmentally Sound Management of Plastic Wastes and of their Disposal contained in document UNEP/CHW.6/21; was adopted. The secretariat was requested to disseminate them to Parties, non-governmental organizations and industry in all United Nations languages as appropriate; and invite Parties, non-governmental organizations and industry to use the technical guidelines. This guideline included the current available scientific information on PVC and PVC coated cables and Environmental Sound Management (ESM) practices.
http://www.basel.int/meetings/cop/cop6/cop6 21e.pdf

As requested by decision VI/37 on the work program of the Open-ended Working Group, the Secretariat has undertaken the task to continue collecting relevant and recent scientific information on PVC wastes and PVC coated cables in collaboration with Parties, industry, non-governmental organizations and other organizations. This information has been placed on the website of the Basel Convention. www.basel.int

Where are we now

At the seventh meeting of the Conference of Parties, held in October 2004, it was agreed to

(Cont. on page 14)

Question & Answer in the Rajya Sabha and Lok Sabha of Indian Parliament on Plastics and the Environment

Rajya Sabha

Plastic Waste

Unstarred Question No. 1877
Smt. Bimba Raikar:

(a) Whether India generates around 7250 tonnes of plastic waste including PET bottles, snack/gutka pouches, etc., every day;

(b) Whether 60 per cent of this plastic waste is recycled into inferior products which are hazardous to health;

(c) Whether the rest 40 per cent is tossed around to choke sewers and environment; and

(d) Whether Government would enact an uniform law for use of biodegradable plastics?

Answer: Shri Namo Narain Meena, Minister of State in the Ministry of Environment and Forests:

(a) As per the Manual on Solid Waste Management brought out by the Ministry of Urban Development in the year 2000, plastic waste generated in the country is around 5000 tonnes per day.

(b) As per the information provided by the Indian Centre for Plastics in the Environment, about 60% of the India's plastic production is recycled annually. Standards have been laid down by the Bureau of Indian Standards for recycled plastic products.

(c) Plastics in general are chemically inert substances. They are 'per se' not harmful to the environment, except the indiscriminate littering of the plastic material along with other garbage and the absence of its organized segregation.

(d) Biodegradable Plastics is still in its nascent state. Its development and usage in the developed countries also is limited. A uniform law for the use of biodegradable plastics is not under consideration of the Government at present.

Use of Plastic in Agricultural Activities

Unstarred Question No. 2587
Shri Shahid Siddiqui:

(a) Whether it is a fact that Government has recommended the use of plastic in agricultural activities, if so, the justification for the recommendation; and

(b) Whether any study has been done on the alternatives to plastics, if so, the details thereof showing the comparative cost-benefit ratio?

Answer: Shri Kanti Lalbhuria Minister of State in the Ministry of Agriculture:

(a) Plastics materials are used in the following applications in the agriculture which are being promoted through various Centrally sponsored Schemes:

- Drip Irrigation
- Sprinkler Irrigation
- Green House/Low Tunnels
- Mulching
- Plastic Crates

The above applications help in achieving increase in yields, water saving, better quality produce, raising crops in extreme climatic conditions. The use of plastic crates for carrying fruits & vegetables not only facilitates transportation maintaining the quality of produce but also saves forests to a larger extent which would have been otherwise cut to produce wooden boxes to carry fruits & vegetables.

(b) Plastics materials have been developed as an alternative to limited conventional resources, viz., wood, paper, jute, etc., as well as for ecological balance and environment protection. Studies have been carried out to produce biodegradable plastic materials for use in agriculture applications, viz., mulching. However, such material is costlier than the conventional plastics materials.

Water Treatment and Disposable Facilities

Unstarred Question No. 1875
Smt. N. P. Durga:

(a) The details of cities which have set up suitable waste treatment and disposable facilities under the Municipal Solid Waste (Management and Handling) Rules, 2000;

(b) Whether it is a fact that India produces 42 million tonnes of urban solid waste annually, and

(c) What measures Government are taking in coordination with the States and local municipalities to maintain the urban waste to the minimum level?

Answer: Shri Namo Narain Meena, Minister of State in the Ministry of Environment and Forests:

(a) As per the information provided by the Central Pollution Control Board of State Govt., Land fills have been set up in various cities and towns.

(b) As per the information provided by the Ministry of Urban Development, India produces around 42.0 million tonnes of municipal solid waste annually and 1.14 lakh tonnes of waste everyday.

(c) The Ministry of Environment and the Central Pollution Control Board have funded projects for the setting up model demonstrating facilities for the management of municipal solid waste as per the Municipal Solid Waste (Management and Handling) Rules, 2000 on cost sharing basis.

Lok Sabha

Deadly Disease in Children due to Toys

Unstarred Question No. 4211 Shri Raosaheb Danve Patil:

Whether the Government is aware that small children are likely to contact a disease like cancer by putting PVC toys in their mouth?

Answer: Dr. Anbumani Ramadoss, Minister of Health & Family Welfare:

Polyvinyl Chloride (PVCs) is used to produce plastic materials having wide applications in the building sector, packaging, electrical appliances, medical care, agriculture, the automotive industry and toys. As per a WHO study there is evidence that exposure to vinyl chloride causes cancer in humans. However, the report identifies inhalation as the main route for the occupational exposure, which occurs primarily in plants producing vinyl chloride and PVC. The same report calls for measures to minimize emissions at production sites and sanitary landfills, and to ensure low residual levels in PVC. However, there is no evidence which suggests contacting of cancer by putting PVC toys in mouth.

(Cont. from page 12)

include the review of scientific information on the disposal of PVC wastes in the work program of the Open-ended Working Group of the period 2005-2006. Nevertheless, scrape plastic coated cables, including PVC coated cables were mirror listed on Annex VIII if destined for uncontrolled burning and on Annex IX if ESM is applied.

Also the Secretariat was requested to prepare, based on comments received and made in all the meetings up to the seventh meeting of the Conference of the Parties, a paper analyzing the current situation for consideration by the Open-ended Working Group; and also requested the Open-ended Working Group to submit to the Conference of the Parties at its eighth meeting recommendations for a decision on the status of PVC wastes in the context of the Basel Convention.

An interim guideline for H013 was also adopted at the seventh meeting of the Conference of Parties. This guideline advised that the only practical examples of use for these H characteristics are limited to approaches using testing procedures based upon leachate of wastes. None of the Parties provided concrete information regarding approaches concerning other materials yielded after disposal. The document contains practical information on leachate tests which could be used by Parties to develop a national approach for H13. At this stage there is no harmonized approach that could be recommended.

Similarly, progress was reported for H10, H11 and H12.

The Convention is now ready to decide on the listing of PVC wastes.

(Source: European Council of Vinyl Manufacturers)

PVC industry strongly feels that PVC waste should join other plastics waste on Annex IX as long as they do not have Annex III (hazard) characteristics as currently defined in the Basel Convention.

Official representatives of various countries are required to place their view points to the Basel Convention Secretariat. Malaysian Government has already officially declared that as per Malaysian Government Regulations, PVC waste do not fall under the classification of Hazardous Waste. Representatives of Indian PVC industry also met the official representatives of Indian Government, Jt. Secretary, MoEF and Director, MoEF and put forward the views and facts before the Government officials substantiating that PVC waste should not be categorized as a hazardous waste.

Proposed New Regulation to include Acidity Factor as a New Test Parameter in Cables by EC

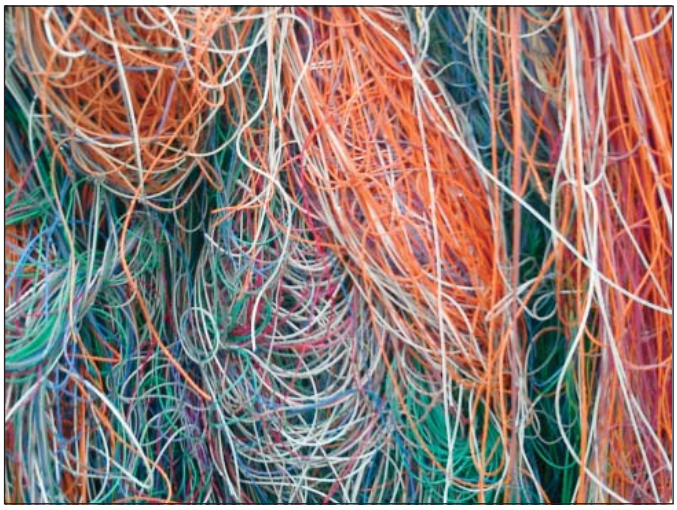
Technical Barriers to Trade (TBT) committee of European Commission (EC) has proposed new regulation related to fire performance of cables as a part of Construction Products Directive (CPD).

Chemicals and Petrochemicals Manufacturers' Association (CPMA), has requested the Ministry to forward their objections to the EC and urge upon it to reconsider the same in view of the points raised against the proposal as stated below:

- From approximately 32 million MT PVC consumed globally, about 6% is used in wire and cable sector. There is hardly any match to the techno-commercial performance of PVC in the specific areas of low-medium voltage power cables, household wiring, instrumental cables, telephone cables, to name a few. With the tremendous developments in infrastructure across the globe, PVCs market in wire and cable sector alone is expected to grow at the rate of about 4.5%.

- The most important and serious concern in case of fire is generation of toxic gases, the main one being Carbon Monoxide (CO). Majority of the people who die from exposure to toxic gases had lethal levels of CO in their blood. It is important to note here

that CO is odourless and hence kills without warning. HCl generated during burning of PVC, on the other hand, causes irritation and hence alerts the inmates of the impending danger, much before attaining a lethal dose. It has been experimentally demonstrated that it takes about half an hour to form a lethal dose of HCl in a normal room fire, whereas formation of lethal dose of 'CO' due to burning of wood, cloth and other natural and synthetic materials is much faster. Moreover as 'CO' is odourless, it does not give any indication of the impending danger to the inmates.



- In any fire, the first stage, i.e., initiation is the crucial stage to act for prevention of its spread. PVC by its chemical nature is very difficult to burn and is self extinguishing, i.e., it would cease to burn the moment the source of flame is withdrawn/extinguished.

- PVC has highest Flash Ignition Temperature, Highest Self Ignition Temperature and Highest Limiting Oxygen Index (LOI), among the common insulating materials. These properties put PVC ahead of other materials as a fire resistant material. These aspects have been ignored in the Proposed Regulation.

It appears that this proposed draft decision is being put forth to effectively ban the usage of PVC coated cables in EU market. A product should be selected over an alternative due to its techno-commercial advantages. The proposal has failed to demonstrate that PVC cables are in anyway unsafe. There is no justifiable reason for excluding PVC as a material for cable coating. Any technical regulation adopted by the commission has to conform to the EC's binding obligations under the TBT agreement. This proposed draft decision is not based on relevant international standards, is not performance based and appears to create unnecessary obstacles in international trade.

Do Not Litter.
Keep Your Environment Clean.

- **Segregate and Throw Waste Only in Waste Bins.**
- **Use Two Bins – One for Wet Waste, One for Dry Waste.**

Plastics, Metals, Paper …
Can be recycled into useful products.

Waste Food and other Biodegradable Waste.
Can be composted into manure.

Issued in Public Interest by

Municipal Corporation of Greater Mumbai

and

Indian Centre for Plastics in the Environment

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