



ENOUGH DATA TO SUE... ITS TIME TO ACT NOW

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Latest CPCB data on incinerator monitoring shows Particulate matter levels in incinerator emissions exceed permissible limit by upto 22 times and Hydrogen Chloride level are upto 2.5 times more than permissible limit

The CPCB has been monitoring the progress of bio- medical waste management in Delhi since 1996 . The stack emission monitoring analysis carried out in seven hospitals during April 1999 showed that the particulate matter is exceeded by more than five to fifty times of the permissible limit and HCL levels were exceeding the level by 4 times. This level reflects the amount of chlorine in the waste stream and since there is no facility in India for dioxin-monitoring the HCL level is considered as a parameter for extrapolating the amount of chlorine and hence dioxin and furan formation. Incinerator emissions are linked with sever health effects such as cancers, and immune system disorders. Recently, stack emissions of several incinerators were monitored by CPCB and the test results of few are shown below :

Hospital	Date of Monitoring	Particulate Matter		Hydrogen Chloride	
		Limit	Reading	Limit	Reading
A	23/03/1999	150	951.1	50	67
B	05/04/1999	150	1873.9	50	65.3
	05/04/2000	150	1082	50	39.9
	07/12/2000	150	237	50	4.7
C	07/04/1999	150	1219.2	50	49.4
D	15/04/1999	150	3312.5	50	195.7
E	16/11/2000	150	924.7	50	31.4
F	17/11/2000	150	166	50	100.8

Source : Central Pollution Control Board

Its time that incinerator issues are taken up seriously and defunct machines are shut down. Moreover measures should be taken to ensure that no more such obsolete machines are allowed to come up.

The battle against PVC is ongoing . In our previous newsletter , we read about major stores in Europe phasing out PVC . A bigger step is being taken by various hospitals of Denmark and Austria , which are involved in an extensive categorisation of waste materials for recycling and aggressive PVC reduction programs. .

The Aarhus Hospital , Denmark sorts waste into 17 different categories, with more to come. Tommy Willis,



Hospitals against PVC : The POISON plastic

purchasing manager at Grenaa Hospital, Denmark implemented a PVC elimination program beginning in 1988 and is now working to produce PVC-free nasal cannulas , suction catheters and oxygen masks with PVC-free connected tubing. At Kinderklinik Glanzing Hospital , Vienna , from among 700 disposable, plastic medical products present at the hospital, only 14% contain PVC .Looking at the efforts of hospitals ,Vienna City Council has also committed itself to making the city PVC-free. Similarly , closer to home, at Holy Family Hospital New Delhi , segregation at source consists of 3 categories , then at the disposal site plastics are further segregated into 8 categories which include IV bags , tubes , syringes ,barrels and plungers and other categories.

PVC when incinerated emits dioxins and furans which are highly toxic. They can cause cancer , disruption to the hormone system, weaken the immune system and can cause We all need to be united in our aim to eliminate this poison plastic. Such hospitals are certainly doing their share. We need to do ours.

Source: Mark Rossi

Health Care Without Harm

Mercury : The TOXIC Threat

- Of the estimated 158 tons of mercury emitted annually into the atmosphere , 10 percent comes from the incineration of medical waste .
- 1.6 million pregnant women , children ,and women of child-bearing age are exposed to unsafe levels of mercury from fish alone ,according to the EPA .
- Infants are at special risk of brain damage from mercury exposure
- .Some 60,000 U.S. children are born each year with developmental impairments triggered by fatal exposure to methyl mercury, usually as a result of their moms having eaten tainted fish One gram of mercury will contaminate a twenty acre lake with enough mercury to cause fish advisories .For comparison, one thermostat contains about 3 grams of mercury ,one electrical switch about 3.5 grams and 100 fluorescent lamps contains about 4 grams of mercury !
- Effects of mercury poisoning include nervous system disorder such as tremors , memory loss weight loss ,mood swings, muscle weakness, skin rashes.

TO JOIN THE FIGHT AGAINST MERCURY ..WATCH OUT FOR OUR NEXT ISSUE...

INTERACTIVE

Achievements

To acknowledge the role of nurses in health care waste management, Mrs. Bhattacharya, Principal, RAK College of Nursing was invited to release the poster at a poster and book release on the 28th of August , organised by Srishti.

A small token of appreciation was given to Hospitals, nurses and ward boys who have contributed to improve medical waste management practices in their respective fields .

Holy Family Hospital, Delhi and Sundaram Medical Foundation, Chennai were the two hospitals which received the mementos for establishing good waste management practices in their hospitals

Sister Poonama Thomas of Sundaram Hospital and Mr. Kailash Kumar of Holy family Hospital received the certificate of appreciation for their contribution and role in waste management in their hospitals.

WHATS YOUR OPINION ???

A recent study, shows an average of 36 needle stick injuries per health worker per year.

What do you think the hospitals should do to protect their workers from such injuries and infectious diseases arising from them?

...We want to hear from You...

Dealing With Sharps: The Indian Experience

In August 2001, a research team with staff from PATH (Seattle and India), Srishti, and Research Pacific India, conducted a design-stage field evaluation of four prototype needle pullers in India. Needle pullers are a concept we (PATH's medical waste team) has been exploring as a tool to safely and completely extract and contain the metal needle from syringes at the location where needles are used.

The problem I found with sharps waste in India can be generally defined as 1) needle prick to health workers and the community, 2) reuse of disposable sharps, and 3) large volumes of sharps waste

Nursing staff was aware of risks to the community of needle stick and reuse of sharps

Most often the tip was burned off the needle with a needle burner, or the needle was bent. Needles were usually batched before having the tip burned off. Forceps were then used to pick up the needle and place it in the burner. The remains of the needle and hub were put in a plastic bucket with a plastic strainer inside. Needle burners were generally very worn looking with burn holes in the plastic ones and rust on the metal ones.

Our concept of needle puller and idea of pulling the needle out was easily accepted at most of the healthcare facilities we visited. Almost everyone who tried the needle pullers thought they were a very practical solution that could help sharps waste management and needle prick in India.

--Nancy Muller

Program For Appropriate Technology in Health
(PATH) Seattle

Incineration hurts sexual development in Belgium

A study published in The Lancet, found that poisonous emissions from incineration of waste has a severe impact on the sexual development of children. Teenagers living closer to incinerators have smaller sexual organs than those otherwise.. *This horrifying discovery incinerators not be close to any human dwelling, the exemplifies the dangers of incinerators. While there no rule in India that requires incinerators not to be close to any human dwellings the Andhra Pradesh Pollution Control Board has forbidden any incinerators to be close to human dwellings The Tamil Nadu Pollution Control Board is also considering on taking up this issue.*

Source : The Lancet , Issue 357,2001.

Autoclaving Vs incineration

The Environmental Justice Networking Forum (EJNF), Wildlife and Environment Society of SA (WESSA) and Earthlife Africa commend Compass Waste Services for selecting autoclaving above incineration .

This step will protect community health since autoclaving do not emit health threatening pollutants such as dioxins , furans and acidic gases .In the Indian Scenario , while incinerators are still polluting the environment almost everywhere , one can see an emerging shift to wards alternatives as well..

Cancer warning over Dundee incinerator

MORE than 35,000 people in Dundee , UK have been told not to grow vegetables or touch the earth in their gardens because it could be contaminated by cancer causing chemicals ! ". These areas also cannot be used to graze animals .This report by Friends of the Earth believes that there has been a marked increase in the numbers for non-Hodgkins lymphoma, one of the cancers most closely associated with dioxin pollution .(4.6% above the national average.) *Apart from causing cancers, these chemicals pass through the food chain and excessive levels can accumulate in body fat and destroy the immune system. Young children are most vulnerable and can ingest them from contaminated soil or through breast milk . The solution to this problem ?, We will leave that up to you: the decision makers , health care professionals and citizens to decide.*

Source : Lucy Adams

Medical Waste: Emerging Technology Options

Untreated medical waste was recognized as a problem in early 1970s and the immediate solution was ‘out of sight –out of mind’. Incinerators, which burnt everything, gave a false sense of security and within a decade there were over 6500 on site installations in the US. But soon the problems of toxins like Dioxins and Furans, which are carcinogenic, endocrine and immune disruptors were evident. In 1997, USEPA formulated strict pollution control norms for the incinerators and it was estimated that over 98% of the incinerators would have to be shut down, because to retrofit the incinerators with pollution control devices would call for huge investments. Alternatives to incinerators started picking up and the need for environment friendly technologies was acknowledged. Alternative technologies are non- burn technologies and are basically categorized as- thermal, chemical, irradiative and biological. Srishti recently released a book published by Health Care Without Harm (an international coalition of NGOs, working on medical waste management), titled “ Non- Incineration Medical Waste Treatment Technologies” which talks about all these technologies in great details. For details contact us.

RML adopts Micro waving

Dr Ram Manohar Lohia Hospital had recently installed a microwave device to disinfect their waste and then shred it. The Meteka Microwave Disinfection Device was installed and is maintained by Pulse Pharma Pvt. Ltd .

Dr Charu Hans , Department of Microbiology at RML said “The device is non-polluting and easy to handle. It reduces the chances of waste being picked by ragpickers and being recycled .”

We can only hope that other hospitals follow the same route away from incineration towards alternatives and centralised facilities.

PMC made party in pollution case

The Patna Medical College and Hospital has been polluting the Ganga by disposing bodies and other waste into the river . The Patna High Court has implicated the Patna Municipal Corporation as a respondent in the PIL as it was not discharging its duties in taking care of the matter, in spite of both the PMCH and PMC receiving lakhs of rupees as an agreement between them .

This act is not only against the Bio Medical Waste Management and Handling Rules , 1998 which directs all human anatomical waste (Category 1) to be incinerated or buried deeply, but also shows extreme callousness of PMCH and the PMC.

Source : Hindustan Times

Bio Medical Waste Plant to be set up in Jaipur

A common treatment facility for bio-medical waste will be set up in Jaipur, and will be ready by this December. It will have a capacity to dispose of waste produced from 10,000 beds .This treatment plant is being set up by Instromedics India Private Ltd.

Source : Business Standard

KSPCB asks private firms to treat Bio – Med waste

Participating in a seminar on Bio – Medical waste organised by the Karnataka State Pollution Control Boards, the Chairman Mr Upendra Tripathy called upon private entrepreneurs to come forward and set up common treatment facilities. Maridi Ecotherm Systems, which has set up a common treatment plant, provides transportation and treatment facility at Rs 3.5per bed per day .

Source: The Deccan Herald

CALENDER



31st October

Industrial growth often conceals the dangers to communities and the environment. Are we aware of the threats we face ? Or are we resisting the toxic invasion? Toxics Link seeks to address these issues through a public lecture series which brings a panel discussion entitled:

The Chemical Juggernaut : Is The Citizen Safe?

For details contact:

Ruchita Khurana : 4320711,
4328006

18th November

Srishti is organising a national meet of the medical action network, India to discuss policies and future action plans on medical waste management.

19th November

A seminar on Occupational Health is being organised and a lecture will be given by Peter Orris, who works with the Occupational Health Services Institute, for Occupational and Environmental Safety and Health at the University of Illinois,

For details contact Srishti.

Q. How can you help



There are simple ways by which you as a concerned citizen can help solve the problem of medical waste. If you are a doctor or a patient –

■ **Remember** – no plastic and sharps used in patient care should leave the hospital without disinfection and mutilation
If you are a patient, insist that your injection syringe is cut and the needle destroyed the moment it is administered.

■ No incinerator should be allowed to come up within city limits. Meet and convince the facility owners against any such installations

■ Ensure that the healthcare facilities in your area are not disposing their waste in municipal dumps meant for your colony. Insist them to subscribe to a facility or else write to the Pollution Control Board.

About Our Organization...

Srishti is a non- profit society working on the environmental issues of waste and its management. As a part of our research, we have initiated a campaign towards better medical waste management throughout the country. Our emphasis is on moving away from polluting technologies towards safer ones. We have been working on issues of occupational health and safety and waste management practices with authorities and policy makers within and outside health care institutions.

Some facts on Medical waste

- On an average a hospital bed would generate 1kg waste
- Of this only 10- 15% is infectious, 5% hazardous and rest is general waste
- People who mix their waste create a 100% problem and people who segregate have 80 % solution already
- Penalty for not following the rules can be 1 lakh rupees fine and 5 years imprisonment

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CPCB Findings :

The CPCB has been monitoring the progress of bio- medical waste management in Delhi since 1996. The incinerator emissions testing was carried out in 6 hospitals of Delhi for Particulate matter and Hydrogen Chloride . The findings of the survey are as follows

- Particulate matter in emissions EXCEEDS limit by 6.16- 22
- Hydrogen Chloride 2 - 2.5 times more than limit.

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Some Recommendations based on these observation by the CPCB are :

- Segregate BMW as per the rules.
- Maintain prescribed temperatures in the incinerator chambers.
- Install necessary air pollution control devices.
- Improve O&M of the incinerator.
- Operate the incinerator by skilled personnel
- Stop incineration of chlorinated plastics.

