

Srishti Survey

Srishti recently carried out a survey of some healthcare facilities in Delhi, including 11 hospitals and a few small set-ups. The findings of the survey were-

- 1) Increase in the number of incinerators in Delhi because of nonexistence of a centralized facility.
- 2) Incineration of disinfected plastic taking place at a few places.
- 3) Red bags being used for incineration in some of the hospitals.
- 4) Incinerators not working at the temperatures specified in the rules.
- 5) Nearly all the plastic is being incinerated in some of the hospitals. But, the good news is that in some of the other hospitals the amount of plastic reaching the incinerator and the reuse trade is decreasing.
- 6) Incinerator ash is not being disposed off in landfills, but is collected by municipal workers



without any protective gears and dumped with general waste.

The medical community, which is the key stakeholder, feels that the following should be done-
Improving upon the Authorization fee structures –
Scrutiny of all equipment available for medical waste management by the Prescribed Authority –
Reduction in the cost of coloured bags available for segregation – serious efforts to be put in towards setting up of a centralized facility.

Dioxin in breast milk: After Japan and Belgium it's now Korea's FDA - Are people going in for incinerators listening?

Korea Food and Drug Administration (KFDA) announced the results of its research on dioxin contamination of the environment, including a report on the contamination of breast milk. The report said an average of 31.78 pg TEQ was detected per 1gram of breast milk fat, which is nearly 30 times the amount of daily tolerable intake of dioxin.

With the increased use of incinerators to burn medical waste and excessive use of chlorinated material, the problem of Dioxin will only increase. Dioxin is formed during the burning of chlorinated material. PVC which is used to manufacture blood, urine bags, tubing, some syringes is almost 50% chlorine.

*While there are lots of areas where Dioxin formation takes place, medical waste incineration remains one of the highest sources of Dioxin **Medical community needs to resolve, to consume fewer PVC products and say no to incineration.***

Incinerator News

Incinerator ban beginning to spread

The Connecticut bill proposing a moratorium on all new incinerators was introduced in the state legislature and passed by the environment committee. The Act states-

Section 1- The Commissioner of Environmental Protection shall not issue any permit for an incinerator. The provisions of this section apply to waste-to-energy plants or incinerators, medical waste incinerators, contaminated soil thermal desorption units, wood burners, sewage sludge, hazardous waste and tire incinerators. The provisions of this section do not apply to any application for an existing waste-to-energy plant or incinerator permit.

Generally, an individual must get DEPs solid waste and air permits to construct, operate, modify, or expand, waste-to-energy facilities and incinerators.

By law, DEP must assess the need of the facility or extra capacity, to meet the state's solid waste needs before issuing a permit to construct or expand a waste-to-energy facility.

Joseph R Parrish Jr
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Up in smoke; Medwaste burners are disappearing one by one

University of Iowa has decided to close its incinerator. Instead of investing \$1 million in pollution controls for U.S. Environmental Protection Agency emissions compliance, the university will outsource its waste to another incinerator. Officials there estimate that the move will save the university \$300,000 annually over upgrading. The decision process was lengthy, considering all the aspects, like budgets, capital costs and environmental impact, finally the incinerator lost.

The University of Iowa's decision to close the burner is part of a growing trend among the nation's hospital. Much of the waste that's been incinerated by hospitals will be treated by alternative methods at outside firms. In 1997, the EPA expected its new rules to close between 50 and 80 percent of the estimated 2,400 burners by the 2002 compliance deadline.

As hospitals continue to switch from incineration to outsourcing, those off-site treatment facilities predominantly will be treating the waste through alternatives. With EPA rules growing stricter, few hospitals will risk seeing their capital investments go up in smoke.

Cheryl A. McMullen

Finding new grounds: incinerator companies move to China

Three Chinese cities are receiving Swiss government loans to build incineration based waste treatment centers. According to agreements between the Chinese and Swiss governments, Switzerland will provide 11 million US dollars of government loans to build treatment plants in Wuhan and Jiujiang and Ganzhou.

Each of the treatment plants (using Swiss technology and equipment) involves a total of 50 million yuan (6 million US dollars) investment, with incinerators that can handle 40 tons of waste a day.

Vergil Bushnell, Multinationals Resource Center

Similar things are happening in Vietnam & Thailand, where, in the name of environment technology transfers, incinerators are being pushed in. The developing countries already have enough problems to deal with and they don't need any more problems in their coffers, even if they get it for free, in the pretext of aids.

After all who wants troubles even if they come for free

Kerala Incinerators: Poisoning one's own land

Kerala State Pollution Control Board (KSPCB) recently organised a workshop on Medical waste in Thiruvananthapuram. The workshop was conducted in association with International Union for Health Promotion and Education (IUHPE), Kerala Chapter and the British Council Library, Trivandrum. The Kerala State Pollution Control Board, Y's Men's Club, BKH Consulting Engineers Pvt. Ltd. and Pyrolator & Pyrolator Pvt. Ltd supported this workshop.

The authorities are planning one centralised facility for every district headquarters to dispose Medical Waste. Almost all the speakers talked about the various methods, by which waste can be managed, including policies and strategies but finally came to recommend that the installation of an Incinerator or a Pyrolator was the only solution. Following this, the association of Hospitals in Kochi is considering a 1000 tons plant and Thiruvananthapuram plans to go in for about 300-500 tons plant.

Almost 50% of the hospitals in Kerala are opting for incinerators. Many have installed the units but are waiting for the power connection. Kerala State Pollution Control Board stated that it considers Incineration a safe option and has also filed an affidavit in the High Court saying that burning plastics will not cause any harm.

Around 50 municipalities and 120 panchayats are planning to go for small capacity incinerators. The PCB has advised

Thiruvanthapuram Corporation to install an Incinerator, which may be the largest in the state.

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Our previous newsletters had articles about Kerala's incinerators and through this issue also we would like to warn the authorities against the installation of the burn technologies like the incinerators and pyrolators. We have already written letters and sent literature to the concerned authorities, others who may be willing to support this campaign against incinerators may write directly to Mr. Jayan, who is fighting these smoking devils in Kerala.

Attitude not Incinerators

While talking about waste management issues small towns and rural areas are easily forgotten. Rotary club decided to take up this issue in some towns of Vidarbha Region. To deal with medwaste, incinerators have been planned for 10 cities, including- Amravati, Akola, Chalisgaon, Jalgaon, Nagpur, Pachora, Wardha, Yavatmal and Umerkhed.

Rotary club should understand that this noble

Results of Ash Sampling

Sample No	Al (mg/kg)	Ar (mg/kg)	Ca (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Hg (mg/kg)	Pb (mg/kg)	Vd (mg/kg)	Zinc
Allotment Path	37126.2	21.84	6528.2	24.35	101.19	5.74			
Allotment Path	31150.0	19.31	4913.6	22.73	74.52	42.38	684.08	80.18	1862.9
Gardens & Allotment	N/A	10.00	N/A	3.00	130.00	1.00	500.00	N/A	300
Parks & Playing Fields	N/A	40.00	N/A	15.00	-	1.00	2000.0	N/A	300
Public Health Recommendations		20		1	50	0.5	50		200

*ICRCL, Interdepartmental Committee Reclamation of Contaminated Land (as supplied by the Environment Agency)

cause only needs training of the people involved and the right attitude and not those 10 small incinerators which its planning to sponsor. We appreciate the efforts of the club and request the concerned people to look in for safer methods to manage waste. Attempts to manage waste using incinerators may create a bigger problem than the waste itself.

Is Incinerator Ash Inert?

Who ever thinks incinerator ash is alert-

The ash from the municipal incinerator in the Byker area of Newcastle's East End had been used for a number of years on the pathways of local allotments parks and school playing fields. Residents consuming their home grown, 100% organic produce from the allotments were concerned and contacted Communities Against Toxics. Information supplied by CATs to the concerned residents resulted in ash being taken for testing. This revealed dangerously high levels of arsenic, mercury and lead, and an astonishing level of ignorance concerning the ash content within the City council, Health Authority and the companies operating the incinerator.

About 2,000 tonnes of the ash has been spread over allotments, pathways and bridle paths over the last six years and some members of the community believe that testing was only done on the initial batch of ash.



SRISHTI *med* waste UPDATE

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City bans mercury thermometer sales

Mercury thermometers can no longer be sold in Duluth following a vote on a landmark move by the City Council there. It's the first such local ordinance in North America and follows Minnesota's nation-leading statute banning the distribution of mercury thermometers in hospitals. The council voted unanimously to adopt the measure.

Mercury is a neurotoxic element, which, in high levels, can cause stuttering, slurred speech and uncoordinated movement. It can be absorbed into the blood and easily cross the blood brain and the placental barrier and cause birth defects, including brain damage or hearing impairments.

Just one gram of mercury, the amount found in most thermometers, is enough to put fish consumption advisories on a 20-acre lake. U.S. Environmental Protection Agency reports that 17 tons of mercury from thermometers is dumped into the nation's solid waste each year.

In part, Duluth's ordinance reads:
"No person shall sell at retail or offer for sale at retail within the city any fever thermometer or basal thermometer containing mercury." The penalty is \$700 per violation. Sellers could be fined \$700 for each mercury thermometer sold or \$700 for each day they remain on display for sale.

In 1992, the Minnesota Legislature passed a law prohibiting hospitals from distributing mercury thermometers or using them on patients.

New England states have put together a mercury action plan and likely will consider similar legislation in the fall. Also, Vermont's Mercury Advisory task force has recommended phasing out the sale of mercury thermometers. San Francisco's Board of Supervisors introduced a

similar resolution.

In 1992, Sweden banned the sale of mercury thermometers and found that the move posed no undue hardship on retailers or manufacturers.

The American Poison Control Centre received 18,000 calls in 1998 regarding broken mercury thermometers. The centre estimated that it cost them between \$30 and \$60 to process each call.

*By Jason Skog and Melanie Evans
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Things are moving fast in some places, its now our turn to react. All medical institutes should gradually move towards non-mercury based instruments and in the process train their staff to handle mercury spills.

Events

Srishti Seminar

Srishti in association with the Central Pollution Control Board and the Dept. of Environment & Forest (Delhi Govt.) organized a seminar entitled Medical Waste: The Emerging Experiences in India, on 56th February 2000 in New Delhi. Past the deadline for the first phase of implementation of the Bio medical waste rules, we thought it was time that all the stakeholders came together and reviewed the situation.

The seminar aimed to bring together all the groups and individuals working on medical waste nation-wide. The idea was to give all these people a platform to discuss their problems and share their experiences for others to benefit from them.

The seminar was spread over two days. The first day had presentations from hospitals, NGOs, government and private entrepreneurs working in this area. Second day was devoted to panel discussion and recommendations. Some of the recommendations from the seminar were- Standardisation of the protective gears and various other equipment used for waste management by the government, compiling



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Volume 4 No.1 March2000
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existing training modules and come out with one comprehensive national manual, urgency in establishing centralised facilities and strict monitoring by the authorities.

Recommendations would be forwarded to the government. We also floated the idea of formalizing Medical waste Action Network (MAN). A report entitled "Emerging Experiences in medical waste management in India" was released on the seminar day. If you wish to have a copy of this report you can write to us.

Hyderabad

APVVP in association with Ministry of Health organised a seminar for the Superintendents and RMOs of all Govt. hospitals on 3^d of March. As an outcome of the seminar a 5-member committee has been formed at the Govt. level for all the matters related to Bio-medical waste. Incidentally, APVVP hospitals are celebrating a Waste Management Fortnight.

Mrs. Jyotsna Chauhan

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National Workshop on Hospital Waste Management (7th-8th March 2000)

India Development Centre in collaboration with Centre for Occupational & Environmental Health, Lok Nayak Hospital organised a National Workshop on Hospital waste management on 7th -8th March. The workshop was attended by officers of Health Department, industries, and NGOs from India, Nepal and USA.

The Main Objective of the workshop was to give practical training in implementation and development of appropriate technology for bio – medical waste management.

Workshop covered the issues of occupational safety and health, epidemiological studies, legal aspect, and safe disposal of radioactive waste. It also discussed new Technologies and role of NGOs in Medical waste management.

The workshop emphasised on the need of better and safer Technologies. Better syringe protective devices and disposal system can reduce needle prick injuries, safe disposal of Radioactive substances in the hospital should become a part of comprehensive system of treatment and disposal. More co-ordinated work of Health, Engineering, Sanitary, Sewage, Environmental and Architect department is required while dealing with Medical waste. The urgent need for a centralised facility in Delhi and other big cities was also felt.

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Forthcoming

Indian Society of Health Administrators (ISHA) is organising the second national seminar on Hospital clinical waste, Hazards management, and infection control from 12-15 of April 2000 at Vishranti Nilayam, CSI Women's House, 18, Infantry Road, Bangalore- 560001. The seminar would focus on- hospital waste's health effects, segregation, Socio- economic, environmental and legal aspects, in addition to sources of infection, infection control, universal precautions and action plans for management of clinical waste. Another seminar would follow this one. For details contact-The Programme Officer, Indian Society of Health Administrators (ISHA), 104, (15/37), Cambridge Road Cross, Ulsoor, Bangalore-560008.