



# Waste Watch

A Newsletter by Chintan-Bharti Waste Resource Centre

May 2005

## Danger Looming Large in Delhi?

### Waste-to-Energy

Some cynics quote, that growing waste is the sign of prosperity and development in India. Well it can be nothing farther than such a crude lie. The copycats always promote the things that the western world has applied to it's situation for good or bad, Take the case of RDF technology for burning waste to derive energy, which is being set up in Delhi. World over the technology has been discarded but in Delhi the government has given the green signal to the toxic fuming monster.

Contrary to its own report (Waste Master Plan 2020), which says that, "RDF is often an option when emission standards are lax and RDF is burned in conventional boilers with no special precaution for emissions" The Municipal Corporation of Delhi (MCD) is installing Waste-to-Energy technologies under the name of RDF for disposing off 2000-3000 metric tones of MSW per day. The MCD concern for dealing the growing waste in Delhi is appreciable but applying bad technology does not solve the problem but will only aggravate the situation further.

Test have shown areas as far as 1,000 miles are impacted directly by the chemical particulates, metals, dioxin, products of incomplete combustion etc., from it. Every resident of Delhi in particular would be exposed to the toxins emitted by incinerators via the food chain through fish, milk and other dairy produce.

Even breast fed infants would be affected, as its by-products will also contaminate their mother's milk. By installing such a technology the citizenry stand at great risk of such contamination and health effects.

### Is it Viable?

First of all 'Refuse Derived Fuel' or RDF is a thermal and combustion technology, mainly used to prepare waste for mass incineration. It is just another name of a form of incineration like pyrolysis, gasification etc. Therefore there is no real difference but only in names.

The waste coming out from Delhi is also not suited for producing energy since Delhi's garbage has an average calorific value of about 800 cal / kg. For combustion technologies to succeed they would need about 2000 to 3000 cal / kg, other wise auxiliary fuel has to be added. This makes the process more uneconomical and polluting than it already is. Moreover more



than half the investment of the cost is put to reduce the emissions, some of which are very deadly, such as mercury, dioxins and furans, volatile organic compounds (VOCs) and heavy metals like lead, cadmium, mercury etc. The RDF requires pelletisation, which causes special problems. Since pellets, to burn need plastics and paper in them, these when used in household stoves or industrial furnaces which are scattered in communities, release toxics in completely uncontrolled environments to which communities are directly exposed. Toxics are created at various stages of such thermal technologies. Various POPs for released in the atmosphere, which can play havoc on pregnant mothers and unborn child via food chain.

The United States' Environmental Protection Agency (USEPA) has evaluated

that that incinerator emissions are the primary source of dioxin, and major sources of mercury, lead, arsenic, particulate, and other pollutants. The ash that results from burning trash is even more toxic.

The incineration of pellets made from Refuse Derived Fuel (RDF) violates several international laws such as: Kyoto Protocol, Stockholm Convention on POPs, Recommendations of United Nations Environment Programme (UNEP)'s Global Assessment on Mercury. The proposed plant is not in line with national legislations and guidelines also such as: MSW Rules, 2000 because according to the MSW Rules it is illegal to incinerate chlorinated plastics (like PVC) and wastes chemically treated with any chlorinated disinfectant. The Burman committee also cautioned not to adopt expensive technologies of power generation, fuel pelletisation, incineration, etc until they are proven under Indian conditions. 'White Paper on Pollution in Delhi with an Action Plan' prepared by Union Ministry of Environment and Forests says that, "The experience of the incineration plant at Timarpur, Delhi and the briquette plant at Bombay support the fact that thermal treatment of municipal solid waste is not feasible. Recycling sector will suffer including the informal sector workers like waste pickers and kabaris, since plastics and paper are required to be burnt for maintaining heat in the incinerator.

### Is there any alternative?

In fact we feel that such high cost routes must be avoided and instead only appropriate methods such as bio-methanation, composting and proper recycling propagated. Incentives and subsidies should be offered in areas of 'cold' technologies alone, which are suited to our country economically, socially and also to our wastes.

We must Oppose the current initiative of the MCD to install the waste to energy plants at Timarpur in Delhi and suggest more humane and environmental friendly initiative.