

Action Plan of Chennai City

Managing Hazardous Wastes

V. R. Gurumurthy

Executive Engineer & Superintending Engineer (i/c)
Solid Waste Management
Corporation of Chennai, India

Chennai

Chennai City lies in the southeast coast of India, facing the Indian Ocean. It has a coastline of about 24 kilometers. It has a tropical climate with monsoon rains that come in the winter months. The city is relatively low lying, with its highest points being only about three meters above sea level. Four major rivers and fifteen drains let out to the sea. The low lying condition implies that drainage is not strong and swift. At independence the city had roughly 1.4 million people. It has grown now to 4.3 million. The growth has included many small and large industries. Larger industries dispose most of their wastes in a controlled manner through special private industrial waste landfills. Smaller industries often dispose of their untreated wastes into rivers or drains, producing a negative environmental impact.

The city is now planning a major reorganization of its waste management. The current waste management is to be transformed into a four part system: an incinerator is to be built to burn some wastes; a compost plant is to be built to compost materials; a recycle plant will be constructed to recycle glass, plastics and metal produces; and the remaining inert materials will be sent to a scientific landfill. It is estimated that the new plants will be operative at the end of 2007.

Problem

The major problem on which this action plan is focused is the management of hazardous wastes. This is a problem that concerns the entire city of 4.3 million people. The new waste management facility will require work on at least two levels. First, the city will have to gain better control of small industry wastes. Second, the new system will require some separation of wastes at the household level. Thus the action plan will require two different but interrelated activities.

Constraints

The major constrain at this time is the jurisdictional one. Hazardous wastes are under the control of the State government's Pollution Control Board. That Board will have to undertake a survey of the city's industries to identify hazardous wastes and develop a control system for those wastes. This will require a proposal to the State Chief Minister, through the Chief Secretary, who will then direct the Pollution Control Board to take the necessary action.

For the separation of wastes at the household level, the City Corporation will have the appropriate authority and responsibility. This will be the responsibility of the Zonal Officers who control activities at the city wards. The Zonal Officers are under the control of the Joint Commissioners for Health, Education and Revenue and Finance. A proposal for organizing household wastes will be given to the City Commissioner. The plan will involve some reorganization of household collection. Presently household wastes are separated into two categories: combustible and non-combustible. The new system will require a four part separation: combustible, compostable, recyclable and inert.

Action Plan

1. Develop written proposal for State action in industrial survey. Write a proposal for the State Pollution Control Board to survey all industries in the city. The proposal will be reviewed by the City Commissioner. The survey will test industrial wastes to determine levels of hazard and will propose appropriate control for each. The proposal can be written within one month for transmission to the State Chief Secretary
2. State survey of Chennai industries. The State's Pollution Control Board will carry out a survey of the city's industries and draft a plan for appropriate control. This will be done within about six months.
3. Write proposal to City Commissioner for Household Waste Management. A proposal with specific steps to be carried out will be written for the City Commissioner. The proposal will be reviewed by the Chief Engineer, who has responsibility for the Solid Waste Management Department. Decision on the plan will be made by the Commissioner. This will take about 2 weeks.
4. Design of household receptacles to be distributed to the households. This can be done within six months
5. Education for new waste management. Ward level programs will be developed to instruct people at the ward level how the new separation program will work. This will be organized for the second half of 2007 to be ready for the opening of the new plants at the end of 2007
6. Distribution of new receptacles to households. This will be done at the end of 2007, just before the new plants become operative.
7. School education program. A program for instruction in the schools will be developed to introduce the new waste management system to the school children. Meet with education Deputy Commissioner to plan a school curriculum on the new waste management program.
8. Design new special curriculum. It is assumed that the Deputy Commissioner on Education will develop a special curriculum for the schools on the waste management program. That will probably be done in the second half of 2006.

AUICK First 2006 Workshop

9. Education program in schools. New special curriculum to be launched in the schools in the first half of 2007.

10. The new system is planned to be operative by the beginning of 2008

11. Monitoring the new system. Solid Waste Management Department officers will work with Zonal and Ward managers to examine waste separation at the ward level. This will be done throughout the first year of the new system's operation, all of 2008

12. Maintaining the system. The Solid Waste Management Department will design the procedures for maintaining the system and will carry out maintenance and improvements as needed.

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Action Plan by Quarters

Action	3/06	4/06	1/07	2/07	3/07	4/07	1/08	2/08	3/08	4/08	1/09	2/09
1. Write proposal for State	X											
2. State action on survey		XX										
3. Proposal on household separation management	X											
4. Design new receptacles		XX										
5. Ward education program					XX	XX						
6. Distribute new receptacles						X						
7. School education program Meet with Dy. Comm. for Ed.	X											
8. School curriculum development	XX	XX										
9. New curriculum in schools					XX	XX						
10. New system operative							XX					
11. Monitoring							XX	XX	XX	XX		
12. Maintaining system							XX	XX	XX	XX	XX	XX