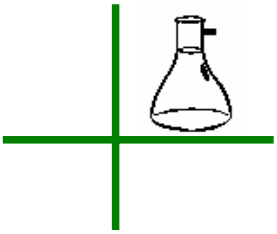


SOLID/ HAZARDOUS WASTE MANAGEMENT

*I*NTRODUCTION

Since, the beginning of environmental movement in the country, both government regulatory agencies and the industry focused their environment protection efforts on controlling the hazardous waste at the point where they enter the environment. This approach has been effective in protecting the environment.

The global environment meet in Stockholm in 1972 boosted the efferts of governments and people to address the environmental protection in a holistic way. Again after the introduction of the concept of sustainable development by Bruntland in 1987 and UNCED meeting in 1992 at Rio, the earth summit, the environmental issues including hazardous waste management got focused attention by developed countries. The recent Basel convention deals with the anti dumping policy.

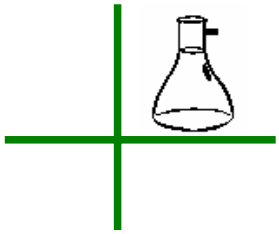
Solid / Hazardous waste generated by the industrial activities can't be so easily treated in-situ and disposed on-site for all the time. Unscientific management of such waste leads to serious environmental problems. It may include wastes like chemicals, metal, oil, glass, rubber, petrochemical products, some organic materials, plastic, gas etc. These wastes require adequate and proper control and handling. Efforts should be made to minimize it.

*M*ethodology

1. The classification of solid and hazardous waste to identified with reference to hazardous waste rule 2003, Manual on solid waste published by central public health and environmental engineering organization and U.S. EPA guidelines. Having collected all the data the waste is classified quantified and characterized its hazardous nature
2. Categories the biomedical waste as per BMW rules
3. Finding avenues for the sale of different kinds of waste considering the Indian condition.
4. Findings of the waste minimizing Waste Minimization options or measures could be grouped into three major categories
    - Waste reduction at Source
    - Recycling, Reuse, Reduce
    - Product Modification
5. Lechate analysis as per above requirements.
6. Selection of the site as per Hazardous waste landfill site selection criteria.
7. Physibility study for the selected site – Environmental Monitoring, Disaster Management and Risk Assessment for the selected site.

SCOPE OF WORK

1.	To Identify, Quantify and Categorize the Solid/Hazardous waste which is being generated
2.	Quantity and quality assessment of the solid and hazardous waste, identification of appropriate type of treatment and technology required for safe disposal of solid and hazardous waste at disposal site.
3.	Overview of the existing management technique as well as possibilities for better and effective management of Solid / Hazardous waste.
4.	To identify waste as well as source of generation in plant and to identify suspected hazardous waste requiring testing for further confirmation of hazardous nature.
5.	Review of existing methodology for segregation , collection, handling, storage, treatment and disposal
6.	To explore opportunities and recommend avenues for sale of different kinds of waste within the provisions of statutory requirements.
7.	Suggesting best techno economic method for Indian conditions segregation , collection, handling, storage, treatment and disposal of all types of wastes as per approval of concerned state pollution control boards.
8.	Minimization and identification of waste which could be recovered and reused and suggesting appropriate technology for the same.
9.	Preparation of plan for transportation of waste from the source of generation to the disposal site including mode of transportation and its route.
10.	The baseline data for treatment and disposal of solid and hazardous waste with respect to air, meteorological, geological, hydrological, surface water soil flora and fauna and socio-economic conditions with resettlement and rehabilitation of the project affected people will be collected and evaluated with respect to suitability of site.
11.	Testing of leachate and hazardous waste in order to assess the importance of various components of environment specially ground and surface water resources, ambient air soil and vegetation.
12.	To suggest alternate location for solid and hazardous waste disposal site in case of proposed site is not found suitable.
13.	Preparation of comprehensive plan for disposal of solid and hazardous waste including details of facility required for treatment of various type of waste and safe and secured disposal and the design and the specification for all equipment and civil woks to be carried out.
14.	Preparation of comprehensive procedure for collection, holding storage, transportation, treatment and disposal of solid and hazardous waste.
15.	Preparation of risk assessment and disaster management plan for disposal site. Report preparation covering all the above mentioned aspects including infrastructure requirement, cost estimation, manpower requirement, time schedule etc. for soled and hazardous waste management of waste treatment and disposal site as well as transportation from generation site to disposal site.
16.	Demonstration of the project covering waste collection, segregation, transportation and disposal methods for handling and disposal of solid and hazardous waste.



Estimated *T*ime: 4 Months

Estimated Cost *O*f *P*roject: 7 Lac.

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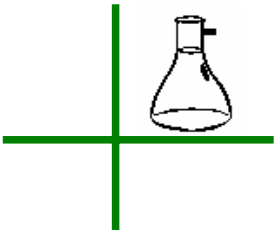

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