Impact Assessment on Air Quality around Integrated Municipal Solid Waste Management Plant in Hyderabad

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Abstract: The menace of environmental pollution due to improper municipal solid waste management (MSWM) has been enduring the human world still it is growing due to enormous growth of industries in the developing countries. Currently 2.0 billion tonnes per year of MSW is generating. Solid Waste Management process includes the collection, conveyance, segregation, treatment and disposal. Various municipal Solid waste treatment (landfilling, incineration, open burning) processes which emits the hazardous Greenhouse gases & affects Environment and Human health. This study has made an attempt on collection of data about various process involved in treatment of Hyderabad Integrated Municipal Solid Waste Management (HIMSWM) done by Ramky group Pvt Ltd and its impact on air. During 2018 national cleanliness survey was conducted in that Hyderabad ranked first out of 4,203 cities in Solid Waste Management. GHMC, the Greater Hyderabad Municipal Corporation, is responsible for the city’s Solid Waste Management function. Hyderabad ranks among the top 5 cities in India in Solid Waste generation. In these processes Landfilling is one of the major municipal solid wastes (MSW) disposal methods practiced all over the world. Although it is considered as the most cost-effective means of waste disposal, but there are poor management practices specially in developing countries like India are the major causes of environmental pollution. Recently several studies has been carried out for the better understanding of the effects of landfill pollution on human health as well on the environment. Toxic gas emissions from landfills like Methane, NOx, SO2, VOC's, CO2, PM, HC, pose a serious threat to both the environment and human health. Some studies has shown that the toxic gases released from landfill sites are even responsible for the lung and heart diseases in humans beings. Landfills also generate a toxic soup known as leachate, formed when the waste is subjected to biological and physiochemical transformation process. Leachate is highly toxic and causes the land and groundwater pollution. This study focus the impact on air due to landfills, and the challenges faced in the current scenario, and the possible measures that can be taken to deal with the problem of municipal solid waste management treatment.

Keywords: Greater Hyderabad Municipal Corporation, Hyderabad Integrated Municipal Solid Waste Management, landfilling, incineration

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