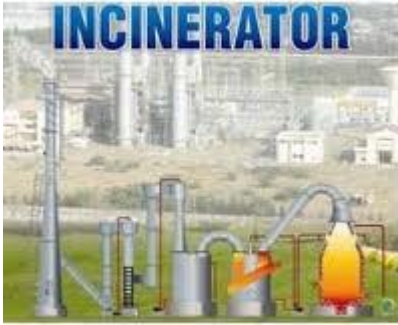


## THE INCINERATOR



Hazardous wastes generated by the industries are required to be managed as per the Pollution control parameter. Besides, segregated organic residues, highly concentrated effluents such as mother liquors and toxic effluents not feasible for physio-chemical, biological treatment also require proper disposal through incineration. Hierarchy of options in hazardous waste management, in sequence, is to switchover to cleaner technologies, cleaner production options and exploring the potential for reusing, recycling, recovering, renovation before sending to incineration and secured land filling. Incineration of hazardous waste from many industries is a task that requires comprehensive knowledge & skill in respect of chemistry, thermal engineering and environmental engineering. Therefore, the BL ENGINEERING (BLU-TEK)

studies the incineration facilities and develops its own design to meet the standards.

Thermal oxidation through incinerator is one of the proven technologies for destruction of hazardous waste in all the forms i.e. solid / semi solid / liquid / Bio-Medical / Radioactive and gaseous, based on the feeding system, so as to render them innocuous in the form of non-toxic and non-hazardous residues. Though it is a solution for destruction of complex hazardous waste, requires knowledge to judge the compatibility of various wastes for the purpose of homogenization of feeding waste, to operate and maintain thermal processes, pollution control devices, which demands skill & experience, in order to comply with the environmental regulations for hazardous waste the incineration facilities are, in principle, expected to handle the hazardous waste in solid and liquid forms having high degree of variation in respect of characteristics due to different nature of industries, which will have direct bearing on efficiency of combustion system and pollution control devices.

The rapid industrial development is posing a perplexing problem of waste management. The refuse is created by all sections of society - industry, commerce, and the public. The careless handling of the refuse has resulted into grave pollution aftermaths. In view of consistently degrading ecological situations pollution regulations have become more stringent. Hence, proper waste handling and management is the need of the hour. To protect the environment from the hazardous waste, efficient and reliable incinerating system is the way out.

An incinerator can dispose of an incredible amount of solid waste when utilized properly, which proves too that it is the most efficient waste disposal process. It mainly consists of 2-stage combustion chambers and the scrubbing system. The furnace is constructed of heavy, well-insulated materials, so that it does not give off extreme amounts of heat produced. The high levels of heat are kept inside the furnace or unit so that the waste is burned quickly and efficiently. If the heat were allowed to escape, the waste would not burn as completely or as rapidly. Disposing of trash or waste effectively, it eliminates the high cost of having waste hauled away and deposited elsewhere, such as piling rubbish atop existing landfills. Incinerators also serve to keep dangerous materials from finding their way to landfills where they can harm people, including those that work in such facilities. In case of liquid waste, it eliminates the need of discharging the effluents in the river bodies.

Aside from reducing the sheer quantity of solid waste by roughly 90%, an incinerator can also be used to manage certain materials that cannot be disposed of properly by simply dumping them in another location due to issues of public health and safety. The extreme temperatures produced by an incinerator can obliterate certain biohazards, as well as other toxic materials which are found in medical and hazardous waste. Other dangerous and harmful materials can also be broken down in an incinerator, such as confiscated drugs, radioactive waste, and contaminants. The use of an incinerator, as well as all other processes by which waste is disposed of, is strictly regulated to protect our health and the environment.