



Incinerating **HAZARDOUS WASTE**

INCINERATION • RESULTS • COMPONENTS • SOLUTIONS

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VULCAN
DRYING SYSTEMS

INCINERATION OF HAZARDOUS WASTE

Industrial processes produce waste that can be hazardous and detrimental to public health and the environment, if not properly managed. These wastes are produced in the production of cosmetics, detergents, pharmaceuticals, household paints, cleaning products, televisions, pesticides, computers, gasoline, and light bulbs, to name a few.

Additionally, many organic wastes threaten the environment if not disposed of properly. At poultry farms, cases of bird flu have been found, causing a high mortality rate in flocks. The carcasses of these flocks must be disposed of carefully in order to prevent contamination of ground and water supplies.

Fortunately, hazardous wastes can be incinerated. Incineration reduces the hazardous waste build-up and also generates energy through the gases released during the process.

INCINERATION'S RESULTS

Incineration converts hazardous wastes into ash, flue gas, and heat. The ash is produced by the inorganic substances in the waste. Flue gases can be dispersed into the atmosphere, but first must be cleansed of gaseous and particulate pollutants. Heat generated by the process can be used to generate electric power.

Incinerators reduce the solid mass of waste by 80-85% and the volume of waste by 95-96%. Incineration does not remove the need to landfill, but it does reduce the volume of waste being disposed of. One of incineration's strongest benefits is in the treatment of specific types of waste, such as clinical and hazardous wastes, where pathogens and toxins are destroyed in the high temperatures.



COMPONENTS OF AN INCINERATOR

A typical hazardous waste incinerator consists of the following pieces of equipment:

- A rotary kiln
- An afterburner
- An air pollution control system

Both solid and liquid wastes can be put into the rotary kiln, which typically has a temperature higher than 1,800°F.

VULCAN DRYING SYSTEMS SOLUTION

Vulcan Drying Systems manufactures a variety of incinerators for hazardous waste. The Vulcan Drying Systems Hazardous Waste Incinerator, for example, is a 12' x 20' long rotary drum incinerator with an air pollution control system. The unit consists of a ram feed system and a refractory lined rotary drum capable of operating at up to 2,600°F.

During incineration, hazardous wastes are fed semi-continuously by a ram feeder. The primary combustion chamber, consisting of the rotary drum and a 20 MMBtu burner, is controlled and modulated by a temperature controller and element, placed in the ductwork between the primary and secondary combustion chambers.

Incineration of hazardous wastes decreases the load placed on landfills, while helping to prevent dangerous contaminants leeching out and polluting surrounding environments. Through incineration, hazardous waste can be safely discarded.

For more information on Vulcan Drying Systems email us at sales@vulcandryingsystems.com or call us at +1 (660) 263-7474.