

# Incineration Services

## Fact Sheet

Of all the various disposal technologies a customer can choose for their waste disposal, incineration offers the most complete destruction. Clean Harbors' Incineration Services thermally destroy organic matter through the use of high temperatures.

Clean Harbors owns and operates seven hazardous waste incinerators in North America. Three incinerators are located at our Deer Park, Texas, facility. Five incinerators are housed in Aragonite, Utah; Kimball, Nebraska; El Dorado, Arkansas; and Lambton, Ontario.

### Direct Incineration of Incompatible/Reactive Materials

Clean Harbors specializes in the management of incompatible/reactive liquids, solids, sludge, and gases via direct incineration.

### State-of-the-Art Fluidized Bed Technology

Our Kimball, Nebraska, incinerator uses a *fluidized bed incineration technology*. The vertical thermal oxidation unit operates in the 1400-1600°F range, and the bed is made up of small, granular inorganic materials that mix throughout the unit. The fluidized bed technology helps to promote a more complete organic combustion than other incineration technologies.

### Rotary Kiln Technology

Our Deer Park, Texas; El Dorado, Arkansas; and Aragonite, Utah, incinerators use a *rotary kiln technology*. High temperature kilns provide greater flexibility in destruction of hazardous waste. A high temperature kiln and afterburner can process material in bulk and drum (liquids, solids, and sludge), process lab packs, and manage compressed gas cylinders, bulk sludge processing, etc.

### Liquid Injection Technology

Our Lambton, Ontario, incinerator uses a *liquid injection technology*. This technology is a high temperature system consisting of a fixed unit incinerator, a semi-dry spray dryer absorber, and a four-compartment baghouse. This system provides a cost-effective and environmentally sound option for the management of liquid and pumpable materials.

### Rail Access to Minimize Transportation Costs

Clean Harbors incineration facilities can receive waste via rail. Rail shipments reduce customer transportation costs as well as over-the-road liability. Our Kimball facility can provide value added service, *rail car cleaning*, when requested. Our Deer Park facility can receive and process incompatible / reactive liquids in rail via direct injection into the incinerator chambers.



## Why Clean Harbors' Incineration

With nearly 70% of North America's incineration capacity, our five incineration facilities in the U.S. and Canada ensure we can meet any incineration requirement from any customer. Clean Harbors' kilns are capable of incinerating solids, liquids, and sludge and our thermal treatment systems' advanced technology can destroy up to 99.9999 percent of all hazardous constituents.

### Ash Management

All ash generated from a Clean Harbors incinerator is managed internally to a company owned and operated landfill. Ash generated from our Kimball and Deer Park incinerators is managed to on-site landfills further ensuring customers that their liability ends at the incinerator.

Unique to the industry is Clean Harbors' Kimball facility, which is the only commercial hazardous waste incinerator in the United States that can delist their ash. After stabilization, ash is certified to be non-hazardous and is "delisted" prior to placement in the on-site monofill. As a result, it is no longer regulated as a hazardous waste under RCRA.

### Compressed Gas Cylinder Management Program

Clean Harbors' Deer Park and El Dorado facilities specialize in the management of compressed gas cylinders. Deer Park and El Dorado can manage cylinders weighing up to one ton. We have successfully managed over 1,100 different gases at our Deer Park facility. El Dorado can also manage large C-Class cylinders, ISO, and multi tube trailers of compressed gas. Our Aragonite incinerator is permitted to process compressed gases and accepts some gas cylinders.