

***Mobile
Infrared
Incineration
System***



OHM Corporation

OHM mobile infrared incineration system for on-site treatment of organic-contaminated soils and sludges

OHM System Advantages

Proven: First TSCA-permitted mobile infrared system and first mobile unit permitted for PCB destruction in Canada. Demonstrated 99.9999% destruction/removal efficiency (DRE) for PCBs, one of the most difficult compounds to destroy.

Comprehensive: Destruction of a wide range of hazardous wastes including dioxins, furans, pentachlorophenol, creosote, and numerous other volatile and semivolatile organic wastes.

Convenient: Completely mobile system; entire project completed on site, eliminating transportation of soils and providing for the return of decontaminated soils to the client.

Cost-Effective: Highly mobile system operational in 11 to 14 days, reducing transportation and setup costs and increasing productivity.

Permanent: On-site destruction minimizes or eliminates client liability.

The OHM incinerator meets the following EPA criteria for the destruction of PCBs:

Destruction/Removal Efficiency	>99.9999%
Particulate Emissions	<0.08 gr/dscf
HCL Control Efficiency	>99%
Maximum HCL Emissions	<4.0 lb/hr
Combustion Efficiency	>99.9%
PCB Contamination Levels	20,000 ppm

Cover: OHM's mobile infrared incineration technology was proven to be exceptionally effective in the destruction of PCB contamination in soils at a Superfund project in Florida.



First proven mobile infrared incineration system in the industry

OHM Corporation introduced significant advances in environmental services capabilities with the completion of the first successful full-scale commercial application of mobile infrared incineration technology.

This breakthrough not only advances the state of the art, but more importantly reduces direct cost and time required for remediation projects.

OHM produced the first practical infrared incineration system after making significant proprietary design modifications which enhanced and further developed existing incineration technology. Those modifications — and OHM's commitment to providing cost-effective, high-productivity mobile incineration — proved so effective the system was awarded the first permit under the Toxic Substances Control Act (TSCA).

Under the TSCA permit, the OHM incinerator is certified to have the capability to:

- Incinerate PCB-contaminated soils in all 50 states
- Process up to 165 tons of waste per day, the highest permitted capacity in the nation

Throughout 20 years in environmental services and the successful completion of more than 10,000 projects, OHM has pioneered the development of proprietary technologies. OHM also is a leader in successfully applying techniques and systems used in other industries to on-site remediation projects.

The System

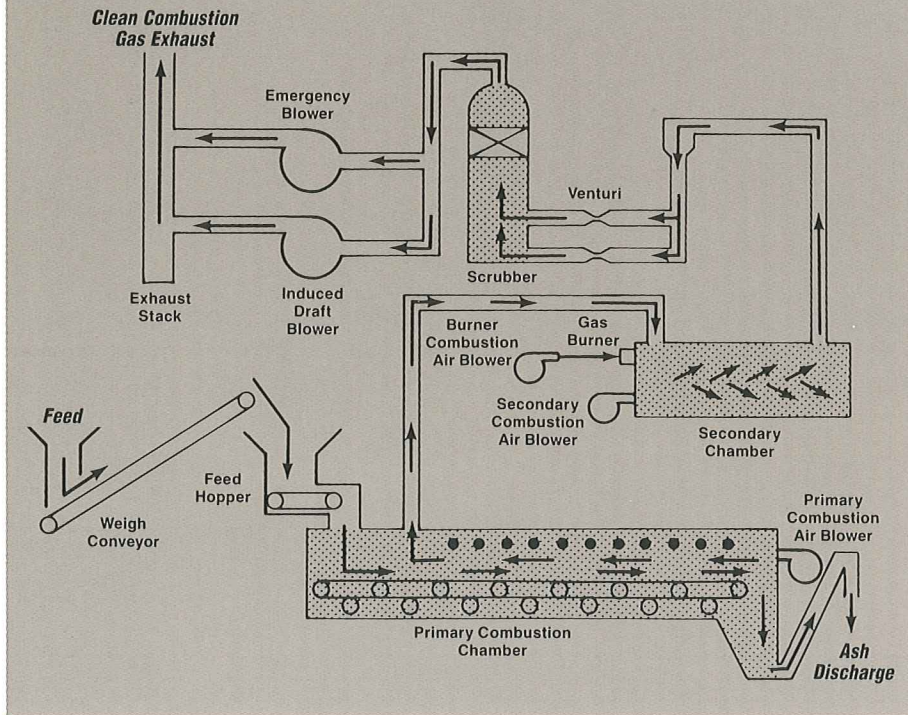
Primary Incineration Chamber

At the entrance to the electric-powered infrared furnace — the system's main component — waste is metered precisely onto a high-temperature, alloy-wire mesh belt. Soils are conveyed through the heating modules where the waste is exposed to infrared radiant heat provided by horizontal rows of electrically powered silicon-carbide rods. Air is injected into the furnace at strategically located points in the chamber.

Three critical variables — conveyor belt speed, temperature profile, and combustion air profile — can be precision-controlled for peak thermal destruction efficiency over a broad range of waste characteristics. OHM certified thermal technicians use the computerized logic-control system to monitor and continuously optimize these variables throughout the incineration process to assure maximum hazardous-waste treatment performance.



Mobile Infrared Incinerator



Secondary Combustion Chamber

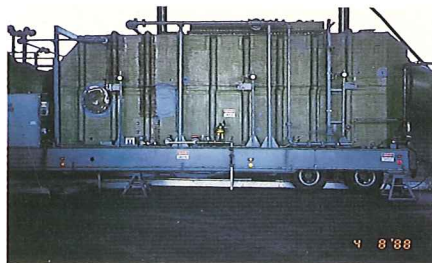
The secondary chamber contains four burners and can be operated with natural gas or propane. This chamber is operated to achieve the 99.9999% DRE required for PCB incineration.

A crossover duct connects the two chambers. Both chambers and the crossover duct are insulated with durable ceramic fiber insulation which is lightweight and resistant to heat and shock stress. This special insulation is lighter than that used in rotary kilns and can be cold-started from room temperature to 2200°F in just one hour.

Air-Pollution Control System

The air-pollution control system includes the following components:

- Quench — water spray for gas cooling
- Venturi Scrubber — for removal of particulates
- Chevron Demister — for removal of water droplets
- Packed Scrubber — for removal of acid gases
- Induced Draft Fan — for full-system airflow



Maximum Reliability, Productivity

OHM's proprietary design modifications provide a completely mobile incineration system with maximum system productivity and reduced costs. System modifications include:

- Integration of trailer and skids for faster setup and reduced weight
- Installation of computerized logic controller/data-tracking system for increased safety and simplified data tracking and reporting
- Streamlined electrical wiring for greater safety, better quality control, and faster setup
- Addition of emergency draft fan and trailer to meet OHM's rigid safety requirements and ensure that incinerator gases are scrubbed in the event of an emergency shutdown

Mobile Infrared Incineration System Operating Range

Waste Throughput	100 tons-225 tons/day
Primary Chamber Temperature	1600°F-1800°F
Primary Chamber Residence Time	10 minutes-90 minutes
Secondary Chamber Temperature	2000°F-2200°F
Secondary Chamber Residence Time	2 seconds-4 seconds
Soil Moisture Content	<50%
Utility Requirements	
■ Electric	500 kW-1800 kW
■ Propane/Natural Gas	5 MMBtu/hr-7 MMBtu/hr
■ Water	30 gpm-60 gpm



Cost-Effective, Comprehensive Performance

Preparation and handling of wastes for incineration too often account for a disproportionate share of project costs. The cause: firms specializing in incinerator operation lack expertise in materials-handling requirements and equipment knowledge.

OHM's expert staff includes engineers and skilled craftsmen who specialize in the design and engineering of environmental treatment systems, just part of our vast base of expertise in the spectrum of environmental sciences and engineering specialties.

OHM's entire inventory of more than 1,500 units of equipment also is available to perform materials separation and size reduction, dewatering, wastewater treatment, and other materials-handling functions.

OHM also can provide additional treatment such as solidification for ash containing leachable heavy metals.

In addition, the nationwide OHM network of six laboratories and eight mobile laboratories can provide the analytical and data management services needed to support on-site remediation projects.

The OHM Engineered Project Approach

OHM has assembled a professional staff and the technical and operational centers to deliver a new dimension in client services which is the Engineered Project Approach. The Engineered Project Approach is a technology-driven plan which integrates assessment, engineering, design, construction, and remediation requirements to solve environmental problems. This OHM approach provides clients with a workable plan to deliver the disciplines, capabilities, and equipment required for any or all of the following project phases:

- Define the problem
- Select the best solution
- Design the solution
- Implement the solution
- Treat and dispose of waste

An Engineered Project Approach Plan can be prepared regarding the application of the incineration technology for your project.

Find Out More

For more information call 800-537-9540. Or write:

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