

# O.H. MATERIALS

**Innovative  
Solutions to  
Environmental  
Problems**

**O H M**

THE ENVIRONMENTAL SERVICES COMPANY



## The OHM Approach

Our approach to help clients solve their environmental problems is to provide a total scope of emergency and remedial services. We combine technical and scientific disciplines, experienced field personnel, and state-of-the-art equipment to identify, assess and solve existing problems and minimize future liabilities.

We offer technologically advanced on-site treatment alternatives which provide the most efficient, cost effective solutions by reducing or eliminating the need for off-site disposal. Because we have no capital investment in disposal facilities, we are not tied to any one treatment technique. Therefore we offer our clients the most objective remedial action alternatives.

Since our inception in 1969, we have successfully completed thousands of projects for private sector clients and governmental agencies. Twenty-four hour emergency service is available from response centers strategically located throughout North America.

In addition to experienced field crews, OHM has an extensive staff of degreed professionals, including hydrogeologists and geotechnical engineers, civil and mechanical engineers, chemists and chemical engineers, environmental engineers, health and safety specialists, and microbiologists. We provide an unmatched scope of services which includes:

- Emergency Response
- Ground Water Recovery and Treatment
- Hazardous Waste Site Cleanup
- Facilities Decontamination
- On-Site Treatment Equipment
- Technical Advisory Services
- Biological Treatment
- Laboratory Services
- Management of Underground Storage Tanks
- Surface Impoundment Restoration
- Explosives/Reactives Handling

Five of these services are described in this brochure. If you would like additional information on any OHM service, please mail the attached reply card or call 1-800-537-9540, 1-419-423-3526 in Ohio and Canada.

## Ground Water Recovery and Treatment

From our experience in completing hundreds of projects involving contaminated ground water, OHM has developed a wide range of action oriented services which includes hydrogeological investigations, evaluation of remedial alternatives, product recovery and on-site treatment.

When our full range of ground water services are combined with OHM project management, we can significantly reduce costs and speed project completion by minimizing subcontractor involvement. Our specific services are also available individually when that best suits our clients' needs.

Specific on-site services include:

- Recovery of phased liquids
- Recovery/treatment of contaminated groundwater
- Flushing of residuals
- Removal/treatment of soils

Our extensive experience can provide proven expertise in selecting and implementing the most effective remedial actions.

OHM's techniques include:

- Interceptor/recovery drains
- Interceptor/recovery wells
- Injection/recovery points
- Skimmer/scavenger wells
- Dynamic flushing systems
- Biologically enhanced flushing systems
- Containment walls/barriers

Our patented Underground Recovery and Treatment System provides an effective and low cost alternative for treatment of shallow ground water and contaminated soils. It incorporates a pneumatic subsurface recovery and injection system coupled with a mobile treatment system for removal of organic or inorganic contaminants.



Mobile treatment systems used to treat ground water before reinjection.

## Hazardous Waste Site Cleanup

Following the completion of hundreds of remedial actions at previously uncontrolled hazardous waste sites, OHM is recognized as the industry leader. Our innovative approach to designing and executing emergency or remedial actions is the key to eliminating liabilities associated with:

- Buried/Surface drums
- Surface impoundments
- Contaminated soils
- Above and below ground storage tanks
- Contaminated facilities

Wherever possible, we use mechanical operations to increase production rates and decrease labor costs. Remote drum handling equipment, for instance, can accomplish in days what would take weeks by traditional methods.

Analytical and disposal costs are reduced through extensive sampling and analyses performed on-site.



Drum grappeler lowers handling costs and increases safety of on-site personnel.

Contaminated surface water, ground water, and many hazardous wastes can often be treated on-site using various configurations of treatment equipment.

From site assessment to final closure, OHM provides the complete scope of services. We also provide single source, total responsibility for management of the entire project, eliminating the need for clients to deal with a large number of subcontractors.



## Decontamination... Structures and Facilities

OHM's individualized restoration programs have turned useless facilities into operations that are again available for production or resale. Solutions have been developed for facilities contaminated with:

- PCBs
- Dioxins
- Pesticides/Herbicides
- Cyanides
- Mercury
- Radioactive materials
- Military agents



Building structure being decontaminated with high-pressure solvent spray.

Our approach to these problems begins with a detailed site assessment and review of existing data. From this information, a complete technical approach is developed.

For complex problems, the decontamination plan may include bench testing of operational alternatives to verify the optimum decontamination methodology.

Successful decontamination techniques may include:

- Solvent application/extraction
- High pressure surfactant cleaning
- Hydroblasting
- Steam cleaning
- Sand blasting
- Various wet/dry abrasive cleaning techniques

## On-Site Treatment Equipment... Design, Engineering, Fabrication and Installation

OHM believes the challenges of environmental problems can best be met through engineered construction techniques for on-site detoxification, destruction, and/or volume reduction of contaminants.

In keeping with our philosophy, we have designed and fabricated a large spectrum of mobile treatment equipment — units which can be linked in treatment chains when multiple treatment technologies are required.



Custom designed air stripping tower removing TCE from ground water.

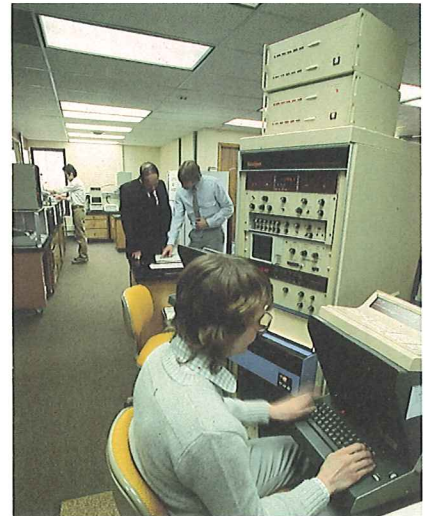
These systems not only decrease transportation and disposal costs, but more importantly, reduce future liabilities associated with off-site disposal. Our on-site treatment equipment includes:

- Carbon adsorption filters
- Clarifiers and separators
- Multimedia prefilters
- Air and steam stripping units
- Mixing/transfer equipment
- Bio-reaction vessels
- Retention pools
- Solids dewatering systems

## Technical Advisory Services... Planning Through Execution

OHM's professional staff provides the foundation for our total-scope approach. Our experienced scientists, engineers, and technicians are ready to assist you in the resolution of your environmental problems. Specific services include the formulation and implementation of:

- Remedial action master plan evaluations
- Hydrogeological investigations
- Site assessment
- Sampling/testing programs
- Process engineering/feasibility studies
- Environmental monitoring programs



Hazardous waste analysis using GC and GC/MS.

OHM operates both fixed and mobile labs to provide a wide range of analyses, including:

### Hazardous Waste/Product

- Trace contaminant identification
- Toxic/Hazardous material analysis
- RCRA, TSCS testing

### Water

- Organic/Inorganic
- Pesticides/Herbicides
- PCBs
- NPDES

### Air

- Ambient air monitoring
- Particulates
- Plume analysis



## **RESPONSE CENTERS**

**Atlanta, Georgia  
Baton Rouge, Louisiana  
Findlay, Ohio  
Grand Rapids, Michigan  
Houston, Texas  
Joliet, Illinois  
Minneapolis, Minnesota  
Mobile, Alabama  
Orlando, Florida  
Ottawa, Illinois  
Princeton, New Jersey  
Richmond, Virginia  
Sacramento, California  
St. Louis, Missouri  
Worcester, Massachusetts**

## **CORPORATE HEADQUARTERS**

**16406 U.S. Route 224 East  
Findlay, Ohio 45840**

**24-hour numbers:  
1-800-537-9540  
419-423-3526**



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