

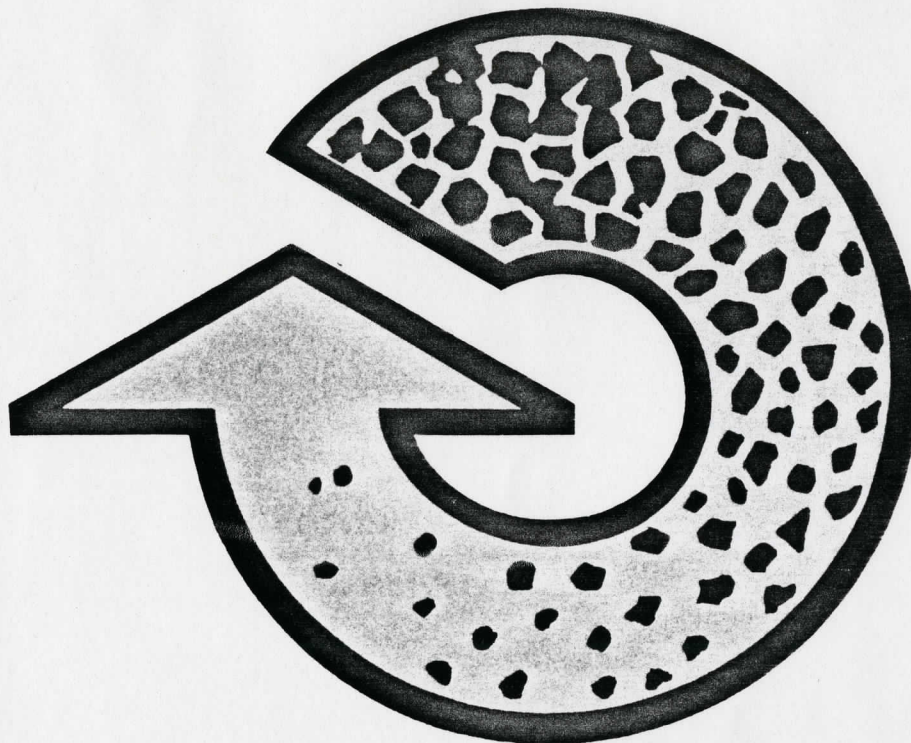
P.S. (Off the Mary's Gardens and Garden of Our Lady record)

To illustrate that one need not be dismissed as an impractical idealist, and can practice what one preaches in applying science and technology to the renewal of the face of the earth, I attach some literature on the Liquecon/Envirite Corporation in which I am deeply involved.

J.S.



Yours truly at Liquecon floral logo at  
Thomaston, CT plant, June, 1981.

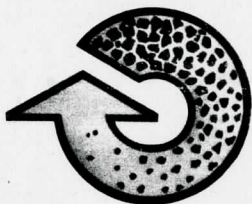


## **LIQWACON/ENVIRITE**

Liqwacon's Envirite<sup>™</sup> system is a specialized waste management service providing an environmentally sound solution to the problem of industrial waste disposal.

The Envirite system starts with...





## Managing Hazardous Wastes: A Vital Human Need

Hazardous wastes are an inevitable by-product of present day life. If industry were to stop generating hazardous wastes today, automobiles, airplanes, appliances, TV sets, telephones, tape recorders, polyester and plumbing fixtures would, along with many other products we take for granted, become extinct. Broadly speaking, hazardous wastes are part of the price we pay for a high standard of living. As per capita consumption increases, so does the waste burden we have to bear.

In meeting the evergrowing demand for products, industry in the United States will, this year, generate over 400 pounds of hazardous waste for every man, woman and child it serves. During 1980, the total hazardous waste burden nationwide was estimated to be 90.7 billion pounds;\* enough to fill a bumper-to-bumper line of tractor trailers (45,000-pound capacity) stretching more than 17,000 miles.

Short of putting industry in mothballs and retreating to a primitive way of life, industrial societies have few immediate options beyond taking aggressive action to assure safe disposal of hazardous wastes. Considering that only 10% of hazardous wastes generated in the United States are now managed in an environmentally sound manner,\* maintaining the status quo can only lead to severe environmental damage and untold human suffering.

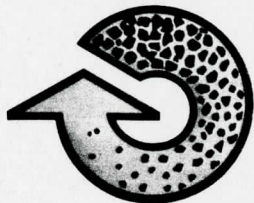
Right now, unsound waste management practices are taking a serious toll on the environment. Indiscriminate dumping and improper storage in unlined pits, ponds and lagoons are threatening many surface and groundwater supplies. In the United States, hundreds of wells have already been

\*1980 EPA estimate



capped due to pollution and the groundwater feeding these wells may not be safe to drink again for centuries – or longer. Unless this trend of environmental contamination is reversed, tragedies such as Love Canal are, in all likelihood, only grim foreshadowings of the impact on human life that lies ahead.

Consistent with values and goals of making worthwhile social contributions while serving those industries which meet basic human needs, Liqwacon Corporation was formed specifically to address the growing human concern for responsible waste management. Through its Envirite™ System, Liqwacon presents industry with a responsible alternative that allows society to defend its environment without forsaking its high standard of living.

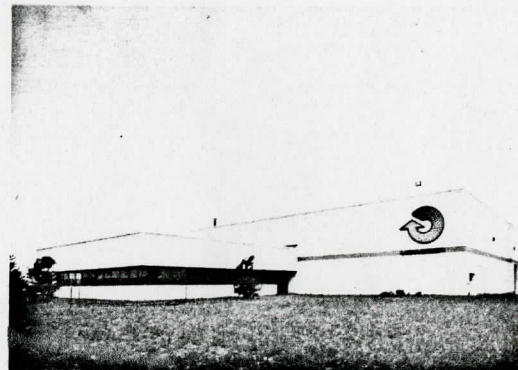


## Responsible Waste Management

Government has recognized the enormous threat to public health posed by indiscriminate handling of hazardous wastes and is now demanding corrective action through the EPA.

Enforcement of EPA regulations will have a heavy impact on waste management processes and increase the need for responsible waste management solutions such as Liqwacon's Envirite™ System. Pretreatment Standards under the Clean Water Act, for example, will prohibit the flushing of dangerous wastes into sewer systems and waterways. In addition, recently issued regulations under the Resource Conservation and Recovery Act dictate standards for waste generators and transporters, as well as waste treatment, storage and disposal facilities. At the heart of RCRA is a "cradle-to-grave" tracking system designed to monitor the handling of hazardous wastes from point of origin to point of disposal.

Motivated by increased regulation, the high risks associated with non-compliance and basic economics, much of industry is turning to waste management specialists such as Liqwacon for assistance. For some companies, in-house treatment is unaffordable. The documentation, administration and technology required are very costly. And, even firms that can afford their

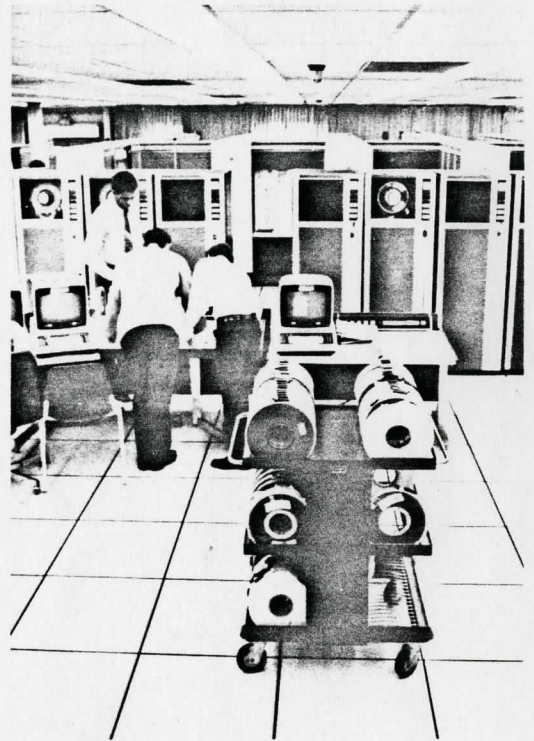
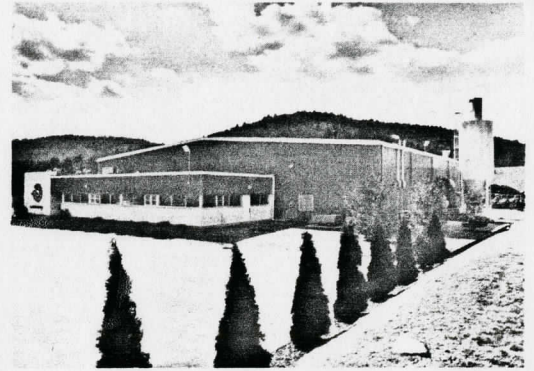


own treatment facilities find the concept of outside waste management attractive because it allows them to focus their full attention on their own business rather than diverting resources to the costly and complicated task of regulatory compliance.

Through specialization and economy of scale, Liqwacon offers industry a cost-competitive alternative and, more importantly, a complete and sound solution to the complex problem of waste disposal. Because the Envirite System complies with all local, state and EPA regulations, Liqwacon customers are freed from the burden of in-house compliance and the growing risks inherent in non-compliance.

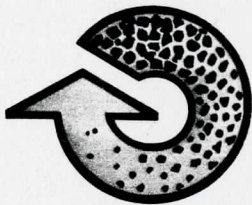
Responsible waste management is both an obligation — and opportunity — that is coming of age.





Photos clockwise from top left on facing page:  
 New Liqwacon plant in York, PA. The environment  
 to be protected. First Liqwacon facility,  
 Thomaston, CT, in operation since 1975. The  
 manufacture of equipment used every day  
 generates tons of hazardous waste. Liqwacon sales  
 manager reviewing benefits of the Envirite System.





## The Envirite™ System

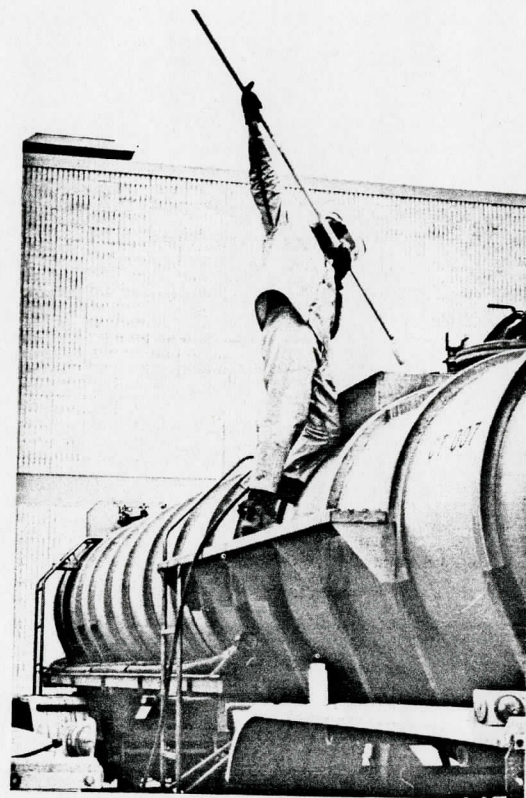
Liqwacon specializes in treating inorganic acid and alkaline wastes such as sulfuric acid and caustic soda. Typically, these toxic and/or corrosive wastes result from surface finishing operations, particularly metal finishing.

A good example of how these potentially harmful by-products are created occurs in the rapidly growing electronic component industry which generates millions of tons of inorganic wastes in the production of high technology chips and other complex circuitry during processes such as cleaning, plating, stripping and etching. The by-products of these operations – spent acids and alkalines as well as aqueous residues from pretreatment systems – are normally contaminated with heavy metals and other pollutants, and must be discarded.

Liqwacon's Envirite System is a comprehensive waste management process which helps industry dispose of these by-products in an environmentally sound manner. The system starts with a chemical analysis of the customer's waste material. Once this analysis has shown that a particular waste falls into Liqwacon's area of specialization and a treatment proposal is accepted by the customer, one of Liqwacon's 5,000-gallon tank trucks is dispatched for pickup.

When the truck returns, the waste is analyzed to verify that the truckload conforms to the initial customer sample. Then the load is pumped into the plant processing system for treatment.

During treatment, each waste receives the full attention of a laboratory chemist as it goes through the plant. Processing systems include large reactors, vacuum filtration equipment, facilities to remove common

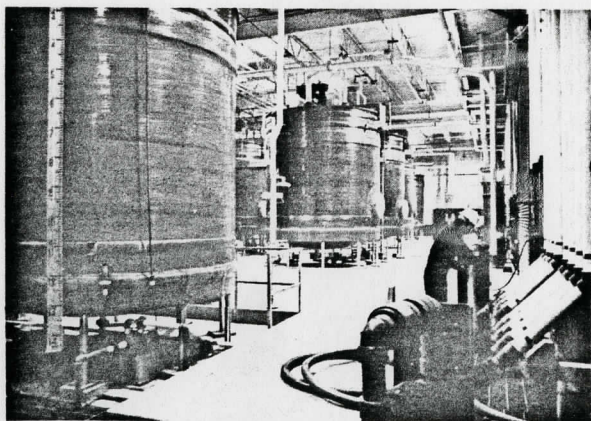
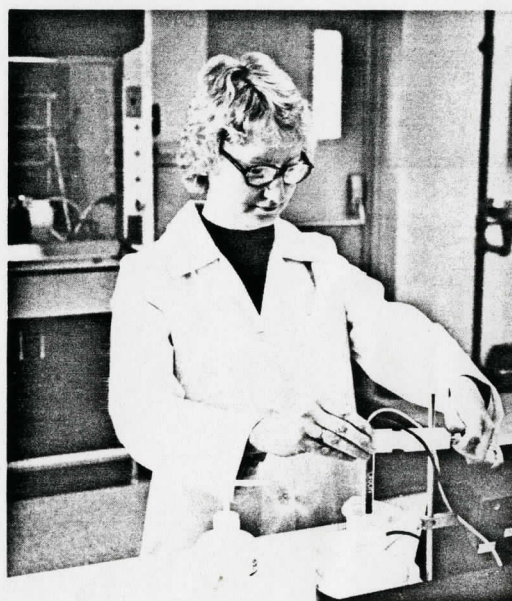
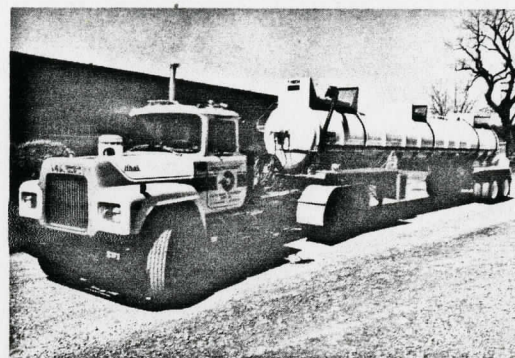
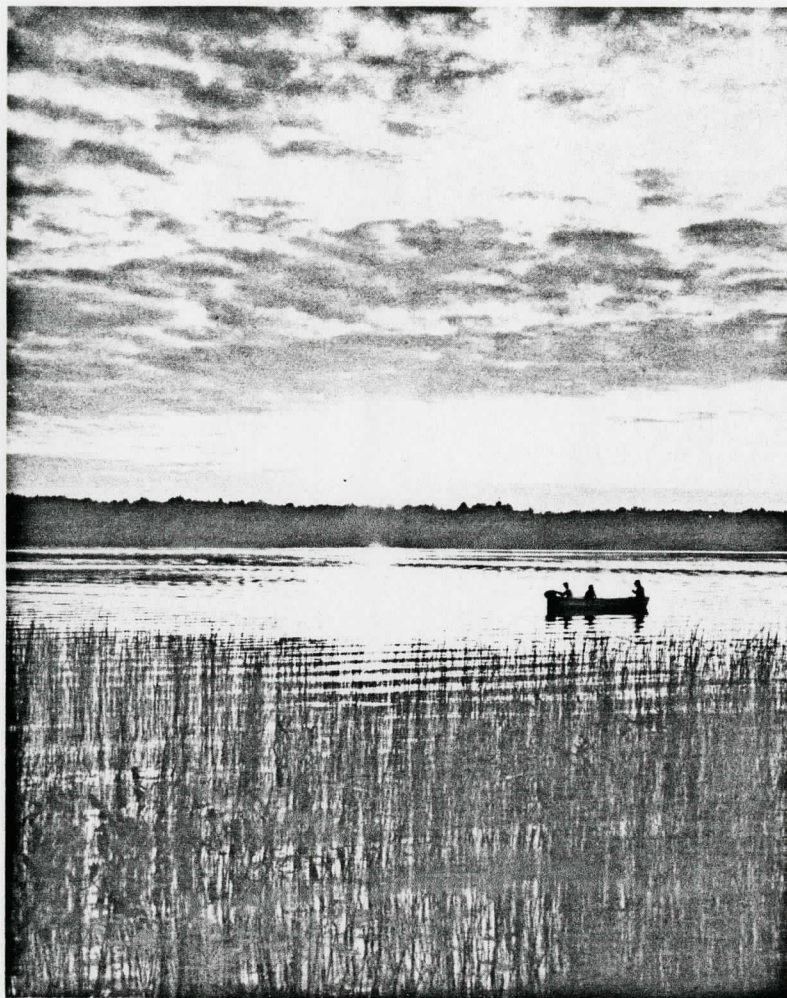


oxidizing and reducing agents, fume scrubbers and segregated holding tanks.

The basic steps taken during processing – detoxification, volume reduction and stabilization – produce two by-products: a pretreated effluent, which is quality controlled and thoroughly checked before being discharged to municipal wastewater facilities for a second treatment phase, and a filtered residue, which is stabilized for landfill.

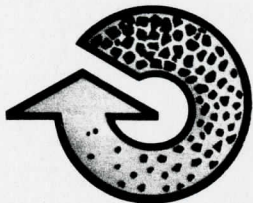
By relying on the Envirite System, industry can concentrate on its own business while being assured that its hazardous by-products are handled in an environmentally sound manner that fully complies with all federal, state and local regulations.





Photos clockwise from top left on facing page:  
Waste sample being taken prior to processing.  
An unspoiled recreational hideaway. Specially-  
equipped tanker for waste pick up. Lab facilities  
where waste samples and effluent are analyzed.  
Liqwacon's modern waste processing facilities.





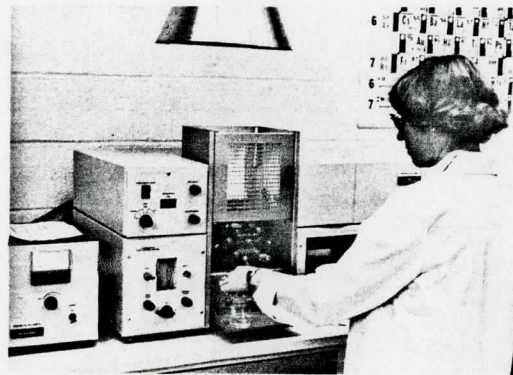
## Protecting the Public Interest

Liqwacon's dedication to protecting the public interest is witnessed by the exhaustive safety checks and careful processing procedures which make up the Envirite System.

At the heart of Liqwacon's quality assurance program are modern, extensively-equipped laboratories where preprocessing, in-processing and postprocessing chemical analyses are conducted to assure that each waste treatment cycle is proceeding safely and according to plan. Analyses ranging from parts per million to parts per billion, for instance, are made possible by double-beam atomic absorption spectrophotometers, just one of many sophisticated devices used to evaluate waste and effluent samples.

Handling and processing facilities, which are designed, constructed and maintained specifically to treat only those wastes that are compatible with the Envirite System, add another precautionary dimension. Segregated waste storage tanks, internal and external spillage control systems, gas scrubbers and specially-equipped transportation are just a few of the provisions aimed at maintaining safety during every phase of waste management inside and outside of Liqwacon plants.

Landfill sites, which are located near the center of the industrial territory to be served, are evaluated from geological, ecological and social points of view to assure safe, environmentally sound land use. Landfills are divided into cells which are capped and contoured as they are filled. These cells are monitored regularly by both Liqwacon personnel and regulatory



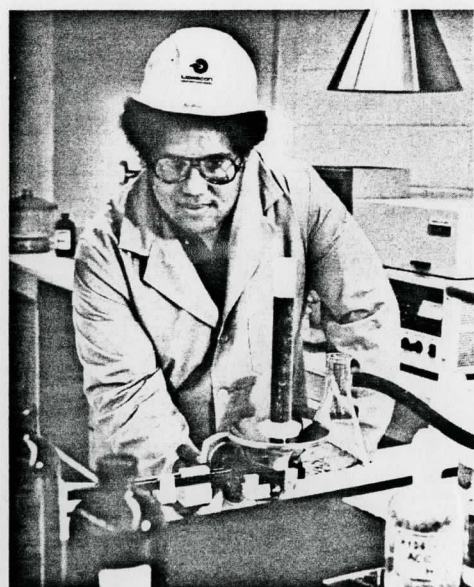
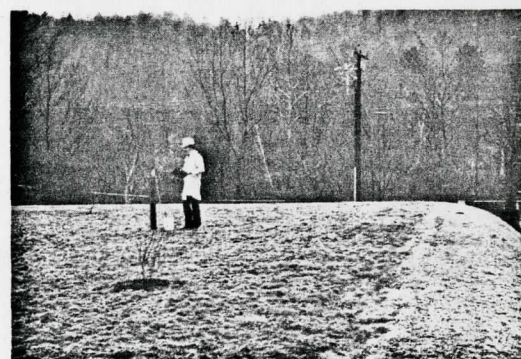
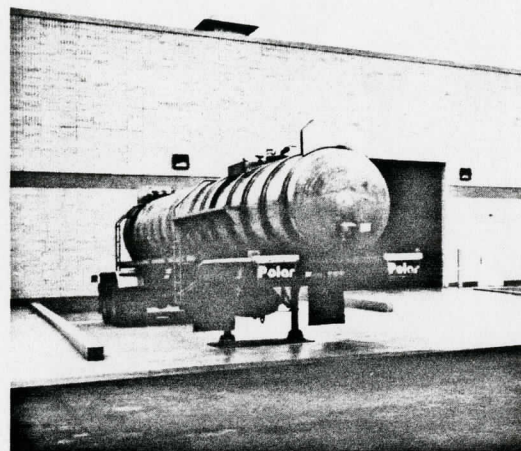
officials to evaluate the overall effectiveness of the waste treatment and disposal process.

Analyses of rainwater taken from open landfill cells and groundwater taken from monitoring wells during Liqwacon's five years of operation in Thomaston, Connecticut have amply demonstrated the soundness of the Envirite concept; tests have shown all water samples to be environmentally safe.

Considering that in the United States only 15.4 billion\* of the 90.7 billion pounds of hazardous waste generated were treated and disposed in 1980 by waste management firms, Liqwacon stands on the threshold of an important opportunity to apply proven waste management technology in society's behalf. Aggressive growth plans, which call for four processing plants by the close of 1981, a national network of strategically located facilities by the end of the decade and exploration of international market opportunities, have been tailored to meet the continuing human need for responsible waste management in the years ahead.

\*1980 EPA estimate



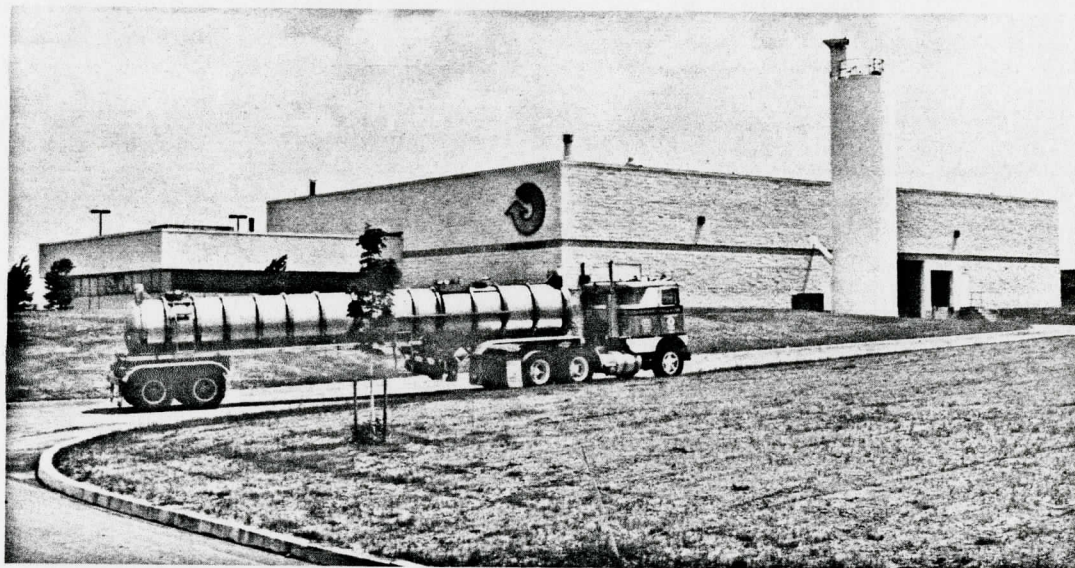


Photos clockwise from top left on facing page:  
Spectrophotometer permits waste and effluent  
analysis down to parts per billion. The environment  
in bloom. All unloading areas are sloped for  
spillage control. Landfill cells at Thomaston are  
checked regularly via special monitoring wells.  
Ongoing lab analysis assures safe waste processing.

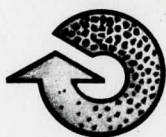


## Facilities

A network of Envirite™ treatment facilities is being planned to serve major centers of surface finishing. New Envirite treatment plants are scheduled for start-up mid-1981 in Canton, Ohio and Harvey, Illinois. Facilities in York, Pennsylvania and Thomaston, Connecticut are shown below.

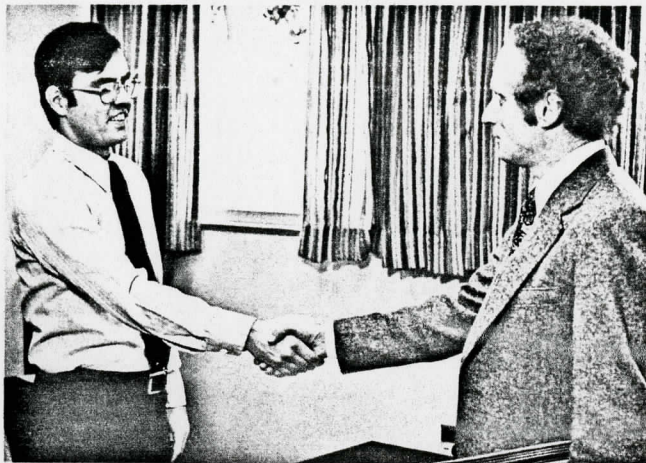


1600 Pennsylvania Avenue  
York, Pennsylvania 17404  
(717) 846-1900  
EPA I.D. Number PAD 010154045



Old Waterbury Road  
Thomaston, CT 06787  
(203) 283-8235  
EPA I.D. Number CTD 093616613





1. Liqwacon's Envirite<sup>TM</sup> system starts with a call by one of our trained and experienced sales engineers.

He will take a sample of your waste for analysis in our laboratory. Also, he will explain to you the major benefits of this specialized industrial liquid waste management service:

#### Cost

Since Liqwacon treats bulk quantities of wastes, it is able to realize capital and operating cost efficiencies. Thus, the cost of using Liqwacon's Envirite system is generally far less than the cost of on-site pretreatment.

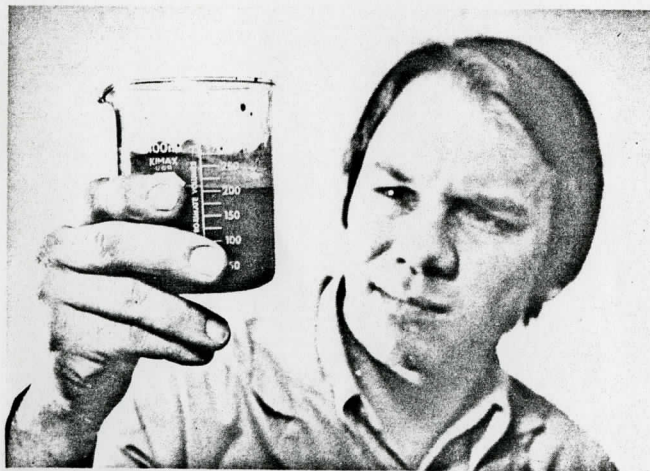
#### Regulatory Compliance

Liqwacon operates approved and licensed waste treatment, storage and disposal facilities. The Envirite system will ease your increasing regulatory burdens and your compliance with RCRA's standards is assured. Liqwacon EPA I.D. Numbers by facility are:

- CTD 093616613 (Thomaston, CT)
- PAD 010154045 (York, PA)

#### Specialization

Liqwacon specializes in the sound management of certain industrial wastes. Use of the Envirite system allows you to apply your personnel, space and funds to your business, to specialize in the things you do best, while we specialize in the things we do best.



2. Your waste sample will be analyzed by our laboratory chemists.

Liqwacon specializes in treating inorganic acid and alkaline wastes from surface finishing industries. Typically, these wastes result from pickling, etching, cleaning, polishing, stripping, coating and plating.

The wastes include:

- acids
- alkalis
- acids and alkalis with heavy metals
- aqueous sludges
- dilute organics (biotreatable) with heavy metals
- chromic acids
- oxidizing agents
- reducing agents
- cleaning agents
- inorganic rinse waters



3. Our sales engineer will call you with the results of our laboratory analysis.

In addition, the sales engineer will provide you with a price quotation for treatment of the waste. Price quotations vary depending upon several factors:

- pumpability of the waste
- degree of hazard in handling
- type of chemicals used for treatment
- quantity of solids produced for filtration
- amount and nature of organic components requiring treatment
- labor and laboratory services required for processing



4. Upon your approval of the price quotation Liqwacon will dispatch one of its tank trucks to pick up your waste.

Our transportation fleet is comprised of 5,000 gallon tank trucks and complies with all federal and state DOT and EPA regulations. Drivers are trained in waste handling procedures peculiar to the waste being transported.



Transportation cost, per load, is determined by the distance from the customer's plant to the closest Envirite™ treatment plant.

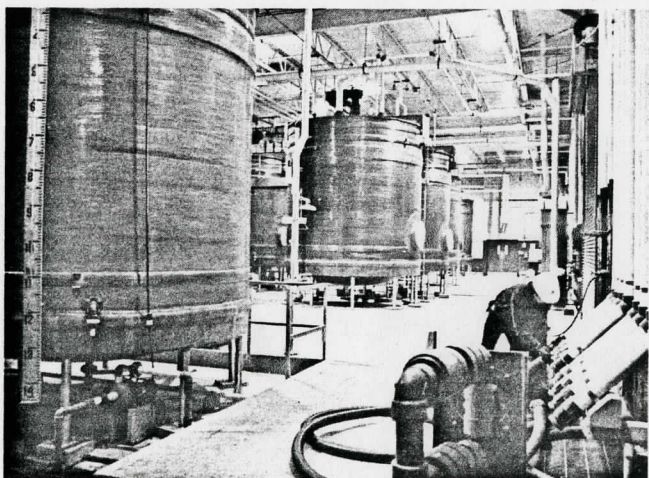
When the truck arrives back at our plant, the waste is checked by the laboratory to verify that the truckload conforms to the sample. Then, the load is pumped into the plant for treatment.



5. The laboratory is the nerve center of all processing operations. Each waste receives the full attention of our chemists as it is going through the plant.

The laboratory is equipped with a variety of modern instrumentation and equipment. A double beam atomic absorption spectrophotometer and accessory graphite furnace and electrodeless discharge systems permit analyses ranging from parts per million down to parts per billion.

Other equipment includes visible range spectrophotometers, inorganic and organic carbon analyzer, biotreatability testing systems, specific ion meter, oxygen meter, microscopy facilities, distillation equipment and apparatus required for EPA testing procedures.



6. Your waste will be treated by our modern equipment in one of our advanced plants.

Plant processing systems include large reactor systems to handle a variety of wastes, vacuum filtration equipment for liquid-solid separations, chromic acid treatment, facilities to remove common oxidizing and reducing agents, fume scrubbers, process pH monitoring and segregated storage holding tanks.

The plant, its processing systems safety and spill control devices were designed to meet or exceed all state and federal requirements.

We encourage our customers to visit our facilities to determine first-hand the high standards under which we operate.



7. The Envirite treatment process produces two by-products. The first byproduct is a pretreated effluent which is thoroughly quality control checked by our chemists before it is discharged.

Our facilities are connected to municipal wastewater treatment plants so that effluent can receive a second treatment stage before it is returned to the environment.

This discharge is made in compliance with federal, state and local pretreatment standards and results are periodically reported to state agencies.



8. Our engineers consistently check the metal hydroxide solids, the second byproduct of the Liqwacon process, which are landfilled in a secure landfill.

These solids, because of their alkaline state are stable and will not create leachate harmful to groundwaters. Just to check, we monitor each landfill cell with special monitoring wells. Completed cells are graded and capped as they are shown above. Also, Liqwacon posts financial bonds in compliance with state and federal regulations to guarantee that the landfilled materials will be monitored and maintained in an environmentally sound manner.