The Dynatec Difference

Complete wastewater treatment systems are designed, built, owned, operated and maintained (DBOOM) by Dynatec at facilities that generate wastewater. Compensation is in the form of monthly payments for the amount of water treated, purified and discharged to sewer or reused. The per-gallon charge fixes the total cost for processing the waste stream, including the cost for disposal of the residual waste. Dynatec owns, operates and maintains the equipment.

Introduction
Dynatec supplies complete outsourced wastewater treatment systems on a contract basis. Payment is made in “cents-per-gallon,” based upon the throughput of the system. Operation of the system and waste disposal is the responsibility of Dynatec. Each contract is individually negotiated so terms such as agreement length, purchase options, and initial payment size will vary.

A typical example is a system installed by Dynatec at a major bearing manufacturer’s plant. The system processes oily wastewater from machining and grinding operations, wash water, tumbling waste, and boiler blowdown. The system purifies water for sewer discharge continuously and automatically. It removes metals, oil, grease and phenols in order to make the water acceptable for discharge to the sewer. The concentrate of contaminants is disposed through a commercial waste disposal company. The bearing manufacturer disposed of their oily wastewater until the Dynatec system was started. Overall costs were initially reduced 61% and have improved as disposal charges have risen.

Significant Savings
- Waste stream reduction lowers discharge fees
- Water reuse reduces overall consumption
- Material recovery saves on processing chemicals
- Easy maintenance

Technology Benefits
Membrane Separation System
- Simple mechanical process
- Consistent high quality water
- Ability to reuse purified water
- Low operating costs
- Unattended operation
- Minimal disposal costs

Contaminants Removed
- Oil and Grease
- Heavy metals
- Machine Lubricants
- Suspended solids

Services Provided
- Systems Design
- Equipment and Installation
- Operator Training
- Maintenance Contract

Equipment Shown
System to remove oil and grease and heavy metals at an engine manufacturing facility. The water after treatment is discharged to sanitary sewer.
Benefits

- No risk. No capital employed in non-performing assets
- No need to operate or maintain equipment
- Assurance of a well-run and well-operated system
- Significant cost savings
- If waste is presently being hauled to a commercial waste treatment facility, this program will help to considerably reduce costs
- Costs fixed for the term of the contract
- Lower environmental liability

Experience

Dynatec has been engaged in the supply of complete systems for industrial wastewater treatment since 1979. Dynatec has installed hundreds of systems during that period of time.

Dynatec has provided systems on a contract basis since 1993.

How to Get Started

A outsourced contract project starts the same way all projects start. First, we must obtain information that helps characterize the waste stream and the treatment requirements. Treatability work is to be completed then a system design and proposal can be developed. At that time, the terms of the contract can be negotiated. Pilot testing on-site is sometimes implemented to confirm the project requirements.

Operation

The system installed will be a semi-automatic system that can be run with minimal operator attention. A Dynatec technician will attend to the system on a daily basis to check for proper functioning, the need for service or maintenance and water quality. The treated water is checked for compliance with discharge standards. Specific tests are completed for each parameter that must be monitored for compliance with sewer discharge. In this way, we are assured that the treated water always complies with requirements.

The concentrated waste is separated from the water and disposed of through an approved and licensed disposal firm. The cost for the disposal of the residual waste may be included as part of the charge for the contract service. The attention, care and maintenance required by the system is handled by the Dynatec operator.

Conclusion

Design-Build-Own-Operate-Maintain (DBOOM) offers fixed treatment and disposal costs for the period of the contract, allowing clients to accurately predict operating costs. Options can be negotiated that allow for purchase of the system during the terms of the contract. Where capital or labor is restricted, contract service agreements offer a reliable means of both reducing and fixing costs.

For each application, Dynatec selects the membrane that will provide the most cost effective long-term solution.