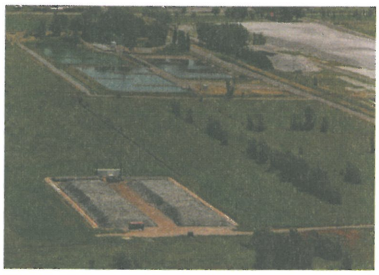
Treatment and Disposal of Petrochemical Plant Hazardous Sludge

TYPE OF CLIENT:
Petrochemical Company

COST ($CAN):
- ❑ < 500 K
- ❑ 0.5 – 1 M
- ☑ 1 – 5 M
- ❑ 5 – 10 M
- ❑ > 10 M

BACKGROUND
The objective of this project was to remediate a sedimentation pond, which is part of a petrochemical plant's storm and wastewater treatment process. Over the course of 30 years, hazardous sludge, reaching up to 330,000 ppm of total petroleum hydrocarbons had accumulated in the pond.

SOLUTION
Following an evaluation of thermal, physical (centrifugation, solidification) and biological solutions, Biogenie proposed a fixed-price remedial solution based on the on-site biological treatment of the hazardous waste followed by disposal of the treated material in a sanitary landfill. This solution met favorably with the guiding principles of our client's Responsible Care Environmental program while providing substantial cost savings in comparison with the traditional solution of disposal in a security landfill.

SERVICES


- Preliminary assessment of the pond;
- Characterization of the contaminated material;
- Assessment of the pond, including an estimate of the total volume of contaminated material utilizing a power-driven sonar;
- Feasibility study to evaluate various treatment options, including a treatability study to validate the viability of a biological treatment solution;
- Securing of all required permits and design of a site-specific Health and Safety Program;
- Construction of an access road as well as two treatment areas;
- *Ex situ* Biopile treatment of 7,800 tons of highly contaminated sludge, clayey soils and sediments;
- Disposal of the treated material (non-hazardous) in a sanitary landfill;
- Reconstruction of the sedimentation basin using a waterproof liner;
- Preparation of the Remedial Action Completion Report.

This project is a prime example of Biogenie's ability to design and implement customized, cost-efficient and totally guaranteed remedial solutions.