

***LEONARD B. GOLDMAN, PE – PRINCIPAL CONSULTANT***

EDUCATION: B.M.E., Mechanical Engineering – The Cooper Union Institute of Technology; M.B.A., Business Administration – New York University

REGISTRATIONS: Professional Engineer – New Jersey, New York, Pennsylvania, Ohio, Connecticut, Delaware, Florida and Texas

Registered with the National Council of Engineering Examiners for National Certification

EXPERIENCE:

Mr. Goldman is the founder of Leonard Engineering and Environics and is currently the principal consultant to Envar Services, Inc. in the areas of engineering, environmental and construction activities. Mr. Goldman is a specialist in the design of major product handling facilities, design of marine facilities for the petroleum, petrochemical and general cargo industries. Environics was established to provide environmental engineering design and remediation services to industrial, commercial and transportation enterprises. Prior to beginning Leonard Engineering, he was Chief Design and Construction Engineer, Manager of Terminal Operations and Major Projects Development Manager for Amerada Hess. He developed various bulk terminal projects for the company's Northeastern region including tank terminals, marine facilities and refinery layouts and arrangements. These involved all aspects of layout design, construction management, installation, pipeline design and routing, plant operations, environmental control facilities and management.

Several of the projects for which Mr. Goldman has been responsible in the areas of design and construction management are:

- ◆ Marine Facilities for Petroleum Terminals: Design complete terminals, including marine facilities for Amerada Hess and over 300 major marine facilities for a wide variety of chemical, petroleum, and petrochemical facilities. Design and construction management are major dredging activities at petroleum terminals and commercial facilities including structural diking, dewatering systems, environmental controls and including State, Federal, environmental and permit activities included for the design of soil retaining structures, berms, and remediation activities. International activities included projects in Japan, Russia, Ukraine, Kazakhstan, Tajikistan, Tatarstan, Canada, St. Croix, Bahamas, Puerto Rico, and Aruba.
  1. Management of Dredging Activities and Transport of Dredged Material
    - a. Authority/Permitting Process
    - b. Potential Impacts/Regulatory Objectives
    - c. Testing Requirements
    - d. Overland Transport of Dredged Material
  2. Open Water Alternatives
    - a. Authority/Permitting Process
    - b. Ocean Disposal
    - c. Other Open Water Disposal Areas
    - d. Reprofiling Operations

3. Upland Confined Disposal Facilities
    - a. Design, Construction, Operation, and Closure
    - b. Surface Water Discharges
    - c. Ground Water Discharges
    - d. Terrestrial Ecosystem Impacts
    - e. Public Health Impacts
  
  4. Alternative Disposal Options
    - a. Subaqueous Disposal Pits
    - b. Containment Areas
    - c. Structural & Non-structural Fill
    - d. Landfill Cover
    - e. Agricultural Use
    - f. Capping Open Water Disposal Sites
    - g. Sediment Testing and Permitting Requirements for Various Dredged Materials
    - h. Deterioration of Ground Water Criteria
- ◆ Chemical Manufacturing: New and/or expanded chemical storage terminal facilities for various companies in Perth Amboy, Linden, Bayonne, Jersey City (NJ), Marietta (Ohio), Houston and Brownsville (Texas).
  
  - ◆ Transload Rail Terminals: Design of transload and tank train facilities for the transportation of cargo and bulk liquid products.
  
  - ◆ Site Investigations: Environmental remediation activities relating to the State of New Jersey and Federal ECRA, RCRA, NJPDES and DPCC programs.

Mr. Goldman provides forensic engineering services to various long-term industrial clients as well as litigation assistance in a wide variety of engineering and environmental matters. He is familiar with New Jersey, New York and Federal regulations with respect to investigations, environmental impact studies and remediation. He is also familiar with ISRA (formerly ECRA) State regulations, "Spill Act" regulations and CERCLA requirements.

AFFILIATIONS:

- National Society of Professional Engineers
- Water Pollution Control Federation
- Building Officials Conference of America
- National Fire Protection Association
- Bulk Storage Subcommittee of the National Fire Protection Association