

DEBORAH A. LANGE, P.E., DEE

Deborah Lange is the first Executive Director of The Brownfields Center, a collaborative effort between Carnegie Mellon and the University of Pittsburgh. Her responsibility at The Brownfields Center is to act as an interface between the activities of the universities (education and research) and the interests of the brownfield development community. Prior to joining The Brownfields Center and since 1986, Ms. Lange was employed full-time by Paul C. Rizzo Associates as the partner-in-charge of domestic and international environmental projects. Ms. Lange began her consulting profession in 1984 as a project engineer for IT Corporation assigned to hazardous waste management projects. From 1980 to 1984, Ms. Lange was a research engineer for U.S. Steel Corporation focusing on air and water pollution control issues associated with steelmaking operations.

Education

Ph.D. (all but dissertation) - Carnegie Mellon, Department of Civil and Environmental Engineering - Research related to the engineering economics of brownfield development. Advisor: Dr. Sue McNeil

M.S. (1982) - Carnegie Mellon, Department of Civil Engineering.

Thesis title: "The Affect of Ammonia on the Calcium Carbonate Scaling Tendency of Blast Furnace Recycle Water." Advisors: Dr. Richard Luthy, Carnegie Mellon, and Mr. Edward Mihelic, United States Steel Corporation

B.S. (1979) - Cum Laude, The Pennsylvania State University, Department of Civil Engineering

Other Education

Institute for Professional Practice - ASFE (Association of Firms Practicing in the Geo Sciences), 1989

Kennedy School of Government - HUD/CPD Community and Economic Development Seminar, 1997

Professional Associations

- Engineers' Society of Western Pennsylvania, Board of Directors and Program Chair for ISRC '99
- Pittsburgh/Allegheny County Enterprise Zone, Governance Committee
- American Society of Civil Engineers
- Environmental Industries Association
- Solid Waste Association of North America
- Pennsylvania Waste Industries Association, Steering Committee and Chair of the Technical Committee

Professional Registrations

Professional Engineer: Pennsylvania, Ohio, Delaware

Diplomate of Environmental Engineering - Solid Waste Specialty, American Academy of Environmental Engineers

Professional Experience

1979-1984: United States Steel Corporation, Pittsburgh, Pennsylvania

Research engineer in both air and water pollution control. Studied alternative methods of wastewater treatment for steel-making process waters such as blast furnace recycle water and waste pickle liquor. Designed data collection methodology and performed statistical reduction of data to assess the sources of fugitive air emissions from "hot end" steel-making processes.

1984-1986: International Technology Corporation, Pittsburgh, Pennsylvania

Designed and permitted hazardous waste management facilities for steel and chemical process plants. Designs addressed management of wastes, contaminated soils, water treatment and stormwater control.

1986-1997: Paul C. Rizzo Associates, Pittsburgh, Pennsylvania

As Vice President and a Partner, most recent responsibilities have included the management of the company's international operations and environmental projects.

Notable international projects include:

- Master plan for the remediation of the Lernacken (abutment area for the Oresund Link) area near Malmo, Sweden
- Preparation of a master solid waste management plan and preliminary disposal facility designs for 50 major cities in Mexico
- Environmental audits, baseline assessments, and management plans for privatized steel-making and power generation facilities in Argentina

1997-present: The Brownfields Center, Carnegie Mellon-University of Pittsburgh

The revitalization of old industrial sites (generally in urban settings) is very complex because it relates to environmental, economic, and social welfare (quality of life) issues. As the Executive Director of The Brownfields Center (TBC), Ms. Lange envisions TBC as a link between academia and the community. TBC serves to apply the academic research and computer-based decision support tools to real-world problems. Likewise, TBC will try to understand real world issues (both domestic and international) and formulate appropriate research agendas to provide solutions to those issues. To date, TBC and the projects therein are funded by Carnegie Mellon and the University of Pittsburgh, the National Science Foundation, the U.S. Department of Housing and Urban Development (through the Pittsburgh /Allegheny County Enterprise Community), and the Heinz Endowments.

Publications

1. Lange, D.A., S. McNeil, J. Horakova, J. Pletnicka, "Bringing Together Stakeholders and Experts for Brownfield Prevention," International Intermediate Conference on the Conservation of the Industrial Heritage of Mining and Metallurgy: Economic Structure in Change, Industrial Heritage in Danger, Sponsored by: The University of Miskolc, Hungary, September 22-28, 1999.
2. McNeil, Sue and Deborah Lange, Ipek Erzi, Catherine Rakestraw, "Evaluating Urban Brownfield Development and Transportation Alternatives Using Sustainability Indicators, submitted to Transportation Research Board, to be published in 1999.
3. McNeil, Sue and Deborah Lange, "Engineering Urban Brownfield Development," Manufactured Sites: Integrated Planning and Design in the Remediation, Reclamation and Reuse of the Post- Industrial Landscape, editor Niall Kirkwood, Island Press, to appear in 1999.
4. Lange, Deborah and Catherine Rakestraw, "Brownfields and the S-Word," ISRC '99 – Official Publication of the Industrial Sites Recycling Conference, Sponsored by the Engineer's Society of Western Pennsylvania, September 1999.
5. Lange, Deborah and Catherine Rakestraw, "Capturing Brownfield Success: A National Glimpse," Industrial Sites Recycling Conference '99, Sponsored by the Engineer's Society of Western Pennsylvania, September 1999.
6. Lange, D.A., B.F.Cellier, T. Dunchak, "A Case Study of the HELP Model: Actual vs. Predicted Leachate Production Rates at a MSW Landfill in Northeast Ohio – One Year Later," American Society of Civil Engineers/SWANA Landfill Symposium, Denver, CO, July 1999.
7. Lange, Deborah and Paul Fischbeck, "Advancing P-RISES to Market Brownfield Sites on the World-Wide-Web," presented at Environmental Software Showcase – Environmental Resources in the Information Age, sponsored by Air and Waste Management Association, Pittsburgh, Pennsylvania, May 1999.
8. Lange, Deborah and William Lafe, "Brownfield Development in Pittsburgh Pennsylvania," presented at Contaminated Land Problems in Central and Eastern Europe Conference, sponsored by Risk Abatement in Central Europe, Katowice, Poland, January 1999.
9. Lange, D.A., P.S.Fischbeck, "Who Wants to Know? The Diversity of Brownfield Information," Brownfields'98, U.S. Environmental Protection Agency, Los Angeles, CA, November 1998.
10. Lange, D.A., S. McNeil, J. Horakova, J. Pletnicka, "Brownfield Prevention: A Case Study in Ostrava, Czech Republic," Warsaw '98: Fourth International Symposium and

Exhibition on Environmental Contamination in Central and Eastern Europe, Warsaw, Poland, September, 1998.

11. Lange, D.A., "Baseline Environmental Assessments: A Philosophy," Warsaw '98: Fourth International Symposium and Exhibition on Environmental Contamination in Central and Eastern Europe, Warsaw, Poland, September, 1998.
12. Lange, D.A., B.F.Cellier, T. Dunchak, "A Case Study of the HELP Model," *Water Quality International*, November/December, 1997.
13. Lange, D.A., B.F.Cellier, T. Dunchak, "A Case Study of the HELP Model: Actual vs. Predicted Leachate Production Rates at a MSW Landfill in Northeast Ohio," SWANA Landfill Symposium, Sacramento, CA, August, 1997.
14. Lange, D. A., "International Marketing of Environmental Services," Environmental Industries Association's Waste Expo, Las Vegas, Nevada, 1996.
15. Lange, D.A., J.A. Broschious and E.G. Zullo, "Leachate Management Design in Mexico," *Waste Age*, January 1996 (also presented at Superfund XVI, November 1995).
16. Lange, D.A., J.A. Broschious, P.C. Rizzo, G. Rosiles, J. Stein, "Solid Waste Master Planning in Mexico", Presented at PRO-ECO '95, May 1995.
17. Lange, D.A., "Landfill Siting and Engineering", Presented at 1er Internacional del Medio Ambiente", March 1995.
18. Lange, D.A., "Assessing Landfill Options", Presented at PRO-ECO '94, May 1994.
19. Lange, D.A., P.J., Landry, C.M. Rizzo, E.G. Zullo, " A Case Study of the HELP Model: Leachate Production Rates at a MSW Landfill in Southwest Pennsylvania", Presented at NSWMA Waste Tech '93, January 1993.
20. Lange, D.A., R. J. Buffalini, T. Dunchak, "Siting a Municipal Solid Waste Landfill in a Limestone Quarry", Presented at NSWMA Waste Tech '93, January 1993.
21. Lange-Kennedy, D.A., and M.A. Pelcher, "Exploring Innovative Landfill Solutions", Solid Waste & Power, August 1991.
22. Lange-Kennedy, D.A., R.J. Buffalini, and P.C. Rizzo, "Field Versus Lab Testing for Clay Liners in Western Pennsylvania and Eastern/Central Ohio", presented at NSWMA Waste Tech '90, September 1990.
23. Lange-Kennedy, D.A., "Overfilling--One Potential Solution to the Waste Crisis in the Northeast", presented at NSWMA Waste Tech '89, September 1989.

24. Lange-Kennedy, D.A., "Effect of Sinter Composition on Steel Plant Emissions: A Mixture Experiment with a Twist", presented at the Spring Regional Conference of the American Statistical Association, 1984.
25. Lange-Kennedy, D.A., "An Alternative Approach to the Estimation of Calcium Carbonate Scaling Tendency in Blast Furnace Recycle Water", presented at the International Water Conference, 1982.

Other Professional Activities

CEE/Heinz School course – Fall 1999

Program Chair: ISRC'99

USACOE presentation

CEE Seminar

Workshop in Czech Republic

HUD training seminar

HUD/EPA presentations

Session Chair: WasteExpo '98 - Chicago - Computer Applications for Landfill Operation

PA Association of Env professionals

ASCE engineer's week

Program Committee: ISRC'98

NSF '97 presentation

BF' 96 scholarship

Project Experience

Specific Experience in: Environmental

Name of Project:: Lujan de Cuyo and Cruz de Piedro Power Plants

Period of Service. From: 1994 ; To: 1998

Name of client: CMS Generation Co.

Activities performed by the professional: Environmental audits of two power plants were performed in Mendoza, Argentina. The audits included soil/ground water/air sampling, conducting interviews, and assessing potential environmental problems. Also, included was a limited chemical characterization of the facilities. An Environmental Management Plan was prepared for use by plant personnel which described actions required to maintain plant compliance with applicable environmental regulations.

Position: Principal-in-Charge

Name of Project: Environmental Audits at 23 Facilities

Period of Service. From: ; To:

Name of client: CMS Generation Co.

Activities performed by the professional: Audits were conducted at power generation, transmission, and maintenance facilities and included soil and ground water sampling, conducting interviews, and assessing potential environmental problems. This included a chemical characterization of the facilities.

Position: Principal-in-Charge

Name of Project:: Integrated Steel Making Facility, San Nicolas, Buenos Aires, Argentina

Period of Service. From: ; To:

Name of client: Aceros Parana, S.A.

Activities performed by the professional: Ms. Lange was the lead engineer for an environmental audit of a 4.5 square mile integrated steel making facility operated by the government and acquired by a private consortium. A systematic inventory to provide an objective evaluation of the plant was performed. Cost of environmental compliance was critical to performance in a competitive market. An Environmental Management Plan was prepared for use by plant personnel which described actions required to maintain plant compliance with applicable environmental regulations.

Position: Lead Engineer

Name of Project: Cursory Environmental Assessment

Period of Service. From: ; To:

Name of client: CMS Generation Co.

Activities performed by the professional: A cursory environmental assessment of Nihuales and Diamante hydroelectric power plant systems was performed. The Diamante system consists of a series of three dams and reservoirs on the Diamante River with a total installed capacity of 388 Mw. The Nihuales system includes three power plants on the Atuel River with a total installed capacity of 210 Mw. The oldest facilities of the system have been operated under government ownership for over 10 years.

Position: Principal-in-Charge

Name of Project:: Environmental Audit

Period of Service. From: ; To:

Name of client: Central Termica San Nicolas S.A.

Activities performed by the professional: With the authorization of AES Americas, Paul C. Rizzo Associates was retained by CTSN S.A. to perform an environmental audit of a 650 MW thermal electric power plant. The plant had five units with the capability to burn a combination of coal, gas, and fuel oil. The purpose of the environmental audit was to: define the environmental conditions of the plant at the time of takeover; assess compliance with respect to provincial, state, federal, and international standards; perform thermal dispersion modeling of the cooling water outfall; measure flue gas concentrations of CO, SO₂ and NO_x; and perform dispersion modeling of the stack emissions of CO, SO₂, NO_x, and particulate matter.

Position: Principal-in-Charge

Name of Project: Craven County Wood Energy Plant

Period of Service. From: ; To:

Name of client: CMS Generation Co.

Activities performed by the professional: Paul C. Rizzo Associates performed a Phase I Environmental Site Assessment and performed an Environmental, Health and Safety Audit of the wood-burning power plant.

Position:

Name of Project: Environmental Baseline Assessment – Tinning Line, Kosice, Slovakia

Period of Service. From: 1998 ; To: 1998

Name of client: VSZ-U.S. Steel, S.R.O.

Activities performed by the professional: Paul C. Rizzo was retained by VSZ-U.S. Steel to evaluate existing sources and the extent of air, soil, and groundwater contamination as measured with respect to current and future environmental quality regulations. The goal was to delineate conditions at the tinning mill operation that pre-existed the joint venture where any current or future violations of environmental requirements are the responsibility of the previous owner.

Position: Principal-in-Charge

Name of Project: Feasibility Study, Air Pollution Controls, No. 1 BOF Shop, SIDEX, Galati, Romania.

Period of Service. From: 1999 ; To: 1999

Name of client: U.S. Trade and Development Agency

Activities performed by the professional: Paul C. Rizzo was retained by USTDA to evaluate minimal and optimal solutions for the point source and fugitive air emissions escaping from the No. 1 BOF Shop. The goal was to identify the cost and benefits of various alternatives, identify suppliers and catalogue potential funding sources.

Position: Principal-in-Charge

Name of Project: Environmental Baseline Assessment – Intergrated Steel Processing Facility in Kosice, Slovakia

Period of Service. From: 1999 ; To: 1999

Name of client: U.S. Steel Corp.

Activities performed by the professional: Paul C. Rizzo was retained by U.S. Steel to evaluate existing sources and the extent of air, soil, and groundwater contamination as measured with respect to current and future environmental quality regulations. The goal was to delineate conditions at the tinning mill operation that pre-existed the joint venture where any current or future violations of environmental requirements are the responsibility of the previous owner.

Position: Principal-in-Charge

Specific Experience in: Solid waste management and disposal

Add - - Warren Recycling, Sechan, Midwest Disposal.....

Name of Project:: Solid Waste Management Plan

Period of Service. From: 1993 ; To: 1994

Name of client: SEDESOL

Activities performed by the professional: Ms. Lange was the Principal-in-Charge of this \$1.5 million project funded by the World Bank. Initial efforts involved the diagnosis of the existing solid waste management facilities, needs, demographics and infrastructure for 50 cities in Mexico. Twenty-five cities were selected by SEDESOL for further study

regarding improved solid waste collection, hauling, and disposal. Construction, operation, maintenance, and administrative costs were estimated. A prioritized plan was prepared to serve as the basis for financing the implementation of the program.

Position: Principal in Charge

Name of Project:: American Landfill

Period of Service. From: 1996 ; To: 1998

Name of client:: American Landfill, Inc. Paul C. Rizzo Associates was retained by American Landfill, Inc. to perform multiple services including design, permitting and construction quality assurance monitoring for earthworks construction, landfill mining, and installation of a gas extraction system at this 20 year old, 500 acre solid waste landfill.

Position: Principal-in-Charge

Name of Project:: Pike Sanitation Landfill

Period of Service. From: 1994 ; To: 1998

Name of client: Pike Sanitation, Inc.

Activities performed by the professional: Paul C. Rizzo Associates was retained by Pike Sanitation, Inc. to perform the engineering design, permitting, and construction quality assurance monitoring required to upgrade an old landfill to compliance with current state and federal solid waste management regulations. This included the design of multi-layer, multi-component (natural materials and geosynthetics) liner and cap systems; surface water management, leachate management and landfill gas management systems; and excavation of 20 acres of previously placed waste.

Position: Principal-in-Charge

Name of Project:: Tire Monofill

Period of Service. From: ; To:

Name of client: C&E Coal, Inc.

Activities performed by the professional: Paul C. Rizzo Associates provided CQA construction services during the construction of an 8.5 acre, clay lined tire monofill.

Position: Principal-in-Charge

Name of Project:: Carbon Limestone Sanitary Landfill

Period of Service. From:1984; To: 1998

Name of client: Browning-Ferris Industries of Ohio, Inc.

Activities performed by the professional: Paul C. Rizzo Associates permitted a 600-acre expansion at this Browning-Ferris Industries of Ohio facility, one of the first landfills in the U.S. to be permitted in accordance with the most stringent state and federal requirements. The Permit to Install Application included excavation and final grading plans, development sequencing, design details, operation plans, and quality assurance plans. Paul C. Rizzo Associates has provided CQA services for every phase of construction since expansion area operation.

Position: Principal-in-Charge

Name of Project:: Imperial Landfill

Period of Service. From: 1986 ; To: 1990

Name of client: Browning-Ferris Industries, Inc.:

Activities performed by the professional: Paul C. Rizzo Associates designed and permitted this Browning-Ferris Industries landfill as the premier state-of-the-art landfill in Pennsylvania; a leader in the US with respect to environmental regulations. Designed as the regulations were evolving, this landfill was the first to have modern multi-layer, multi-component (natural materials and geosynthetics) liner and cap systems; surface water management, leachate management and landfill gas management systems. Ms. Lange is the engineer-of-record for this 140 acre expansion and a the certifying engineer for initial phases of construction.

Position: Engineer of Record

Name of Project:: Southern Alleghenies Landfill

Period of Service. From: ; To:

Name of client: Chambers Development, Inc.

Activities performed by the professional: Paul C. Rizzo Associates was retained by Southern Alleghenies Disposal Services, Inc. to provide consulting engineering services for the construction of a \$3 million, four-acre expansion at an existing facility in Somerset County, Pennsylvania. These services included the preparation of contract bid documents, construction drawings, CQA and technical specifications for the construction of a double liner system and related activities.

Position: Principal-in-Charge

Name of Project:: Recycling Facility

Period of Service. From: ; To:

Name of client: Browning-Ferris Industries, Inc.

Activities performed by the professional: Paul C. Rizzo Associates provided engineering support to Browning-Ferris Industries in the conceptualization, design, and construction of a state-of-the-art materials recovery facility located in Pittsburgh. This facility was constructed to attain compliance with the recycling requirements imposed by the Pennsylvania Department of Environmental Resources.

Position: Principal-in-Charge

Name of Project:: Proposed Landfill (Guaynabo, Puerto Rico)

Period of Service. From: 1990 ; To: 1991

Name of client: Browning-Ferris Industries, Inc.

Activities performed by the professional: Paul C. Rizzo Associates was retained by Browning-Ferris Industries to provide engineering support to the development of a controversial solid waste landfill in Guaynabo, Puerto Rico. The design for the landfill was difficult as it was to be located in a valley adjacent to a small river. Engineering challenges included design of liner and cap systems to be constructed on steep slopes and management of large quantities of surface water within a confined space. The major obstacle to permitting was public opposition to the project for which many public meetings were conducted.

Position: Principal-in-Charge

Name of Project:: Proposed Landfill (Preston County, West Virginia)

Period of Service. From: ; To:

Name of client: Chambers Development, Inc.

Activities performed by the professional: Paul C. Rizzo Associates was retained by Chambers Development Company to evaluate the feasibility of locating a solid waste landfill in a rural portion of West Virginia. A complete geologic and hydrogeologic investigation was performed as well as a conceptual design to be implemented in difficult terrain. A major challenge to this project was transportation access via rural roadways.

Position: Principal-in-Charge

Name of Project:: Vinland Landfill

Period of Service. From: 1994 ; To: 1994

Name of client: Sanifill, Inc.

Activities performed by the professional: Paul C. Rizzo Associates prepared a bid package for this construction and demolition debris landfill. A Permit Modification Application was subsequently prepared to address the acceptance of residual waste.

Position: Principal-in-Charge

Name of Project:: Monroeville Landfill

Period of Service. From: 1992 ; To: 1992

Name of client: City of Monroeville, Pennsylvania

Activities performed by the professional: Ms. Lange was an expert for the city in public hearing related to the expansion of a landfill owned by Chambers Development Corporation and located in a densely populated area of the city. In politically charged meetings involving many nearby residents, Ms. Lange provided objective and technical explanation to design (especially, leachate and gas management systems) proposed by the owner. The landfill was eventually permitted given compromises from both the city and the owner.

Position: Expert Testimony

Name of Project:: Jefferson Landfill

Period of Service. From: 1990 ; To: 1994

Name of client: Leatherwood (a subsidiary of R&P Coal Company)

Activities performed by the professional: Paul C. Rizzo Associates was retained by R&P Coal company to assess the feasibility of constructing a solid waste landfill in a formerly mined (coal) area in northwest Pennsylvania having both road and rail access.

This 127 acres landfill was designed and permitted in accordance with the most stringent regulations for liner and cap systems; surface water, leachate and gas management systems; as well as ground water and gas monitoring systems.

Position: Principal-in-Charge

Name of Project:: Construction Quality Assurance

Period of Service. From: 1997 ; To: 1998

Name of client: Midwest Disposal of West Virginia, L.L.C.

Activities performed by the professional: Paul C. Rizzo Associates was retained by Midwest Disposal, Inc. to provide design, permitting and construction quality assurance services for a solid and asbestos waste landfill in rural West Virginia. This project was a challenge because a demanding schedule required concurrent design and construction. Based on past experiences, construction proceeded without delay.
Position: Principal-in-Charge

Name of Project:: ELDA Landfill
Period of Service. From: 1996 ; To: 1997
Name of client: City of Cincinnati
Activities performed by the professional: Ms. Lange was an expert for the city in an adjudication hearing for a permit application prepared by Waste Management, Inc. for the expansion of the ELDA landfill in Cincinnati, Ohio. On behalf of the City, Ms. Lange reviewed the permit application to assess technical completeness and conformance with both state and federal regulations.
Position: Expert Testimony

Name of Project:: Capels Landfill
Period of Service. From: ; To:
Name of client: Capel Resources, Inc.
Activities performed by the professional: Paul C. Rizzo Associates was retained by Capels Resources, Inc. primarily to engineer materials handling facilities to be associated with a 10,000 ton/day solid waste landfill located in the very challenging terrain of southern West Virginia. Special attention was given to the rail unloading facility. Paul C. Rizzo Associates also performed the operational pro-formas for the landfill and peer reviewed the design concepts prepared by others on the consulting team.
Position: Principal-in-Charge

Specific Experience in: Remediation of contaminated sites

Name of Project:: Environmental Master Plan
Period of Service. From: ; To:
Name of client: SVEDAB
Activities performed by the professional: Ms. Lange was a member of a three-company team who prepared an environmental remediation master plan to be used as the basis for conducting environmental investigations/remediations in Sweden. Ms. Lange acted as the lead engineer in the development of a master plan for the remediation of the Lernacken Area. Considerations in the development of the master plan included cost/benefit of the proposed remedy, scheduling with respect to bridge construction, impact of the remedial efforts on the neighbors to the site, and both short term and residual risk associated with the remedy. Remedial efforts were estimated to be over \$40,000,000.
Position: Principal in Charge

Name of Project:: Sanitary Landfill
Period of Service. From: 1986; To: 1991

Name of client: Municipal Authority of Westmoreland County, Pennsylvania
Activities performed by the professional: Paul C. Rizzo Associates reviewed and evaluated landfill operations at this municipal waste landfill and assisted the County in determining the best way to proceed with the present and future disposition of the site. We addressed the regulatory, technical, and economic issues concerning the site, as well as the options available. This project involved permitting, preparation of bid documents, and CQA of a double synthetic liner system. Half of the liner system was constructed over existing waste and required geogrid reinforcing layers.
Position: Principal-in-Charge

Name of Project:: ELDA Landfill
Period of Service. From: 1996 ; To: 1997
Name of client: City of Cincinnati
Activities performed by the professional: Ms. Lange oversaw the technical evaluation of the landfill performed as part of the Adjudication Hearing. An evaluation of the remaining airspace was also part of our scope of work.
Position: Principal-in-Charge

Name of Project:: Delaware Sand and Gravel Superfund Site
Period of Service. From: 1996 ; To: 1997
Name of client: Delaware Sand and Gravel Remediation Steering Committee
Activities performed by the professional: Paul C. Rizzo Associates prepared the plans and specifications for the 20-acre Inert Area, which included provisions for designating a portion of the site for continued operation of a scrap metal recovery business. A Sediment and Stormwater Management Plan for the site was also prepared.
Position: Principal-in-Charge

Name of Project:: Crossridge Landfill
Period of Service. From: ; To:
Name of client: TransAmerican Waste Industries of Ohio, Inc.
Activities performed by the professional: Paul C. Rizzo Associates was retained by Trans American Waste to perform the engineering design and permitting required to upgrade an old landfill to compliance with current state and federal solid waste management regulations. The suspicion that hazardous wastes were previously placed in the landfill as well as complicated legal and regulatory issues eventually led to TransAmerican's decision not to purchase the site.
Position: Principal-in-Charge