



March 21,2011

Mr. Andrew Palestini  
Remedial Project Manager (3HS23)  
US EPA  
1650 Arch Street  
Philadelphia, PA 19103-2029

**Rentokil Initial Environmental Services**  
Rentokil Initial Environmental Services, Inc.  
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Dear Andy:

This is a response to your letter of March 3, 2011 regarding the need to develop and evaluate Remedial Alternatives and a Focused Feasibility Study (FFS) for the Rentokil Initial Environmental Services, LLC (RIES LLC) Superfund Site in Richmond, Virginia. RIES LLC intends to perform the additional response actions as stipulated in the letter and proposes NewFields, of Atlanta Georgia as the contractor for the FFS.

NewFields has extensive experience in Superfund investigation and remediation. NewFields principals and staff are well versed and experienced in the Superfund feasibility study process and have considerable experience in remedial alternative analyses and feasibility studies for CERCLA and other environmental sites. NewFields is an international engineering and environmental firm with numerous projects completed in six continents and seventy countries and has twenty six USA offices and four international offices.

NewFields' principals and staff have provided the engineering and management of the overall environmental program at the Richmond site; including the original Remedial Action Work Plan, Remedial Design, Remedial Action, and Long Term Operation, Maintenance and Monitoring for the site; for over 18 years. NewFields also manages the complete GIS database for all data generated for the site.

Attached is the resume of Randall Grachek, P.E., proposed as the technical lead for the preparation of the FFS. We look forward to your prompt approval of our contractor and initiation of work.

Sincerely

RIES LLC  
  
Michael W. Orrick

cc: NewFields – Randall Grachek, P.E.  
VDEQ – Tom Modena  
Suzanne Moon-General Counsel, Rentokil Initial Inc.  
Barbara Gallo-Kevolin & Horst LLC

# Resume

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## **RANDALL GRACHEK, P.E.**

**TITLE** Partner, NewFields

**EXPERTISE** Environmental Engineering and Management  
CERCLA Remedial Design and Remedial Action Management  
CERCLA Remedial Investigation/Feasibility Study Management  
Triad Investigations  
Civil Engineering/Engineering Design  
Environmental Cost Analysis  
Water and Wastewater Engineering  
Environmental Assessments  
RCRA Facilities Investigations/Corrective Measures Studies and Designs  
HSRA Studies and Design  
Litigation Support Engineering  
Civil Engineering Management  
Wood Treating Facility RD/RA

## **CURRENT POSITION**

### **NewFields, Atlanta GA (1997 – Present).**

Mr. Grachek is currently the President of the Atlanta NewFields Group. His responsibilities include the execution, management and direction of Investigation, Engineering Design, Litigation Support, Cost Analysis and Construction Oversight for environmental sites. Select current projects and past experience with NewFields include:

- Lead Engineer and Manager for the design, construction, operation & maintenance, and groundwater monitoring of the remedial action for the Virginia Wood Preserving Site in Richmond, Virginia. This project involves the remediation of a former wood treating facility including such technologies as horizontal directional well installation, surface and groundwater extraction/removal, slurry wall barriers, wetland mitigation, and RCRA capping systems. Other responsibilities include and/or included engineering feasibility analysis, proposed plans for ROD amendment, Owner's agent, cost control management, exit strategies, real estate transfer support and construction management.
- Lead Engineer and Manager for the RCRA corrective Program for a major chemical manufacturing facility in Brunswick, Georgia. Project includes the performance of a RCRA Facilities Investigation (RFI) and the development of a Corrective Measures Study (CMS); Corrective Action Plans (CAPs); Field Oversight, and detailed cost estimates for former pesticides manufacturing plant. Currently managing and performing a TRIAD soils investigation for the facility.
- Lead Engineer and Manager for the Remedial Design Work Plan, Remedial Design, Remedial Action implementation, and post remedial action groundwater monitoring for the selected remedial action for the Saraland Superfund Site in Saraland, Alabama. This project involved the remediation of the Superfund Site including demolition, groundwater monitoring system installation, removal of contaminated soil and other materials, and site restoration. Other responsibilities include Owner's agent, cost control management and construction management. Performed detailed leaching/groundwater analysis for use in revising soil excavation standards, culminating in an Explanation of Significant Differences (ESD) for the site remedy.
- Lead Engineer and analyst for the evaluation of a multiple site wood treating environmental management portfolio for a confidential client. Performed an audit and review of the technical appropriateness and feasibility of the remedies selected for each site. Performed a probabilistic cost analysis for the overall portfolio.
- Engineer for the development of remedial elements for the Bofors-Nobel Superfund Site in Muskegon, Michigan. This

## **RANDALL GRACHEK, P.E. -2-**

project involves the installation of a RCRA Cap and Barrier Wall on a former chemical manufacturing facility. Other involvement on the project included evaluation of the operation and maintenance of the existing groundwater treatment plant for the site.

- Lead Engineer for the design and planning of the remediation at a former pesticides site in Sao Leopoldo, Brazil. Developed remediation plans and bidding documents and supported bidding and negotiation for the removal action project. Developed decision management documents for the removal action and statistical procedures for exit strategies.
- Lead Engineer for the design and planning of renovation of a landfill leachate collection system for a pesticides manufacturing facility in Woodbine, Georgia. Developed construction plans and bidding documents and supported bidding and negotiation for the project. Managed the construction to completion.
- Manager of environmental investigations and remediation for a property acquisition in Norcross, Georgia. Performed data analysis and remedial design for this site, contaminated with heavy metals.
- Lead Analyst for the development of cost and liability projections for the acquisition of assets and liabilities during corporate mergers and acquisitions. Utilized data and cost analysis tools including ArcGIS® and Crystal Ball®.
- Engineering lead for legal support on several closed municipal landfill litigation projects in Georgia for confidential clients.
- Lead Engineer and Manager for litigation support and management of solid waste closure activities, groundwater monitoring, and assessment of corrective measures for a closed municipal solid waste landfill in Cherokee County, Georgia. Provided expert witness services for matters involving the landfill including property damage claims.
- Lead Engineer for the development of a closure plan and closure program for the Halliburton Barirod Plant in Magnet Cove Arkansas. Project involves the removal of contaminated lagoon wastewater, lagoon closure, and long-term groundwater monitoring.
- Cost Estimate Consultant for various engineering and environmental projects for Fortune 500 and smaller companies.
- Lead Engineer for the performance of soil treatment volume and cost analysis for the potential remediation of the Former Volunteer Army Ammunition Plant in Chattanooga Tennessee.
- Lead Engineer and Manager of a Georgia Hazardous Sites Response Act (HSRA) Program for a chemical manufacturing facility in Savannah, Georgia. Project includes the preparation of a HSRA Compliance Status Report (CSR) for this active industrial plant.
- Member of the technical action group which provides oversight to the City of Atlanta's water and wastewater systems modification program.
- Engineer for the remedial program at a major petroleum terminal facility. Responsibilities include engineering design and analysis of environmental control and remediation plans and the development of cost estimates for the environmental program. Included in this evaluation is the closure of several RCRA units and the potential for the use of barrier and containment technologies in their closure. This project also includes evaluation of previous contractor's plans and cost estimates.

## **PAST EXPERIENCE**

**RANDALL GRACHEK, P.E. -3-**

**Engineering Manager, Dames & Moore, Inc., Atlanta GA (1993-1997)**

Environmental Engineering and Engineering Management for major PRP lead Superfund Site Remedial Action Programs, Site Investigations and Environmental Process Engineering.

- Authored the Remedial Design/Remedial Action Work Plan for the Aberdeen Pesticides Dumps Site in Aberdeen, North Carolina. Reviewed the site Record of Decision and developed a strategic plan to perform the specified remedial action of the former pesticide manufacturing facility.
- Managed the RD/RA program for the Virginia Wood Preserving Superfund Site in Richmond Virginia. Developed the Remedial Action Work Plan and performed the preliminary remedial design for the ROD selected remedy. This project involves the remediation of a former wood treating facility including such technologies as horizontal directional well installation, surface and groundwater extraction/removal, slurry wall barriers, wetland mitigation, and RCRA capping systems. Performed post ROD Risk Analysis and Value Engineering for reduction of RA scope and cost.
- Performed an analysis of a potential catastrophic tank spill involving tall oil and black liquor for the Mead Paper Company in Mahrt, Alabama. Evaluated the ability of the current activated sludge treatment plant to handle a large tank spill through the treatment system.
- Manager of the Remedial Program at the Newport Wellfield Site in Newport Ohio. Developed RD Work Plans and detailed cost estimates, conducted the site investigation, and acted as lead engineer and consultant during the site removal action and the attainment of a natural attenuation remedy for groundwater. This site is a State of Ohio lead involving soil and groundwater contaminated with BTEX, TCE, TCE breakdown products, and PAHs.
- Lead Environmental Engineer for RCRA corrective action analysis and design of an aquifer pump and treat system for pesticide-contaminated groundwater at a former pesticides manufacturing facility in Brunswick, Georgia.
- Project Manager and Lead Engineer for development of a CERCLA Feasibility Study for Beazer East/DuPont at the former Koppers Wood Treatment Facility in Newport, Delaware. The site involves creosote and PCP contamination of soil and groundwater as well as sensitive ecological and wetland issues.
- Project Manager and Lead Engineer on a Feasibility Study for a Georgia HSRA site in Americus, Georgia. This former manufactured gas plant underwent a HSRA Corrective Action process.
- Project Manager for the RCRA compliance and Corrective Action at the Beazer/Koppers Wood Treatment Project facility in Montgomery, Alabama. This project involves corrective action for creosote; PCP and CCA contaminated soil and groundwater. Developed a corrective action strategy for the plant involving the conceptual design of sheet pile and jet grouted barrier walls with hydraulic containment support.

**Engineer/Project Manager, U.S. Army Corps of Engineers, Omaha District, Omaha NE (1988-1993).**

Engineer and Manager for numerous major USEPA and the U.S. Department of Defense hazardous waste site projects. Responsibilities included the development strategies, scope and costs for remedial investigation and remedial action (design & construction) environmental projects as well as the execution and the engineering management of these projects including:

- Operating Industries Superfund Site, Monterey Park, CA. Developed and managed an operation & maintenance program for a 192-acre hazardous/municipal landfill in east Los Angeles, California. Issues addressed included gas production and destruction, toxic volatile gas emissions, landfill subsidence, underground fires and slope stability. Performed a detailed analysis of the existing cap and barrier elements of the landfill including subsidence monitoring and cap integrity analysis. Developed a detailed Operation & Maintenance Plan for use by operation and maintenance contractors at the site.
- Rhinehart Tire Fire Superfund Site, Winchester, VA. Managed the design of a remedial system for the site of a 1983 tire fire involving the burning of over 7,000,000 tires, producing over 800,000 gallons of oil/sludge. This work included design and construction of a containment dam, slope stabilization using shot-crete, oil collection, oil/water separators

#### **RANDALL GRACHEK, P.E. -4-**

and a 100-gpm water/leachate treatment system for metals. The water treatment system utilized chemical precipitation of zinc, aluminum and other metals as well as clarification and sand filtration. This site is a major EPA lead site in Region III.

- Southern Maryland Wood Preservers Superfund Site, Hollywood, MD. Managed and performed pre-design, design and design reviews for the remedial action program at a major former wood-treating site involving over 150,000 cubic yards of creosote and PCP contaminated soil and contaminated groundwater. The first phase of the project involved the design and construction of a sheet pile barrier wall system for the containment of the area for the site containing DNAPL creosote. The second phase involved the design of a thermal treatment remedy, excavation and associated civil engineering, groundwater treatment and air emissions control. The water treatment design included pretreatment (Oil/Water Separation, flocculation, clarification, filtration), UV/Oxidation treatment, post aeration and sludge handling. Wetland restoration design was a key element to this project. Also involved were extensive thermal (soil) and groundwater treatability tests to support design.
- Norwood PCB Superfund Site, Norwood, MA. Evaluated the feasibility of using the BEST Technology soil washing system for use at this PCB contaminated site. The BEST technology is a solvent extraction system utilizing a mobile solvent (triethylamine (TEA)) to separate contaminants from soils and sludges.
- Kane and Lombard Superfund Site, Baltimore, MD. Managed the design and the construction of a soil-bentonite slurry wall and RCRA cap system for this inner city Baltimore Superfund Site. Site contaminants included priority pollutant metals.
- Auto Ion Superfund Site, Kalamazoo; MI. Supported EPA Region V in evaluating plans (implemented by site PRPs) for the remediation of arsenic and chromium contaminated soils at this former battery and plating facility.
- Fort Ord Federal Facility, Monterey, CA. Performed preliminary assessments, site investigations and RCRA investigations at numerous military HTRW sites within the military reservation. Developed the draft work plan for the installation wide RI/FS. Sites included municipal/industrial landfills; fire training areas, motor pools, USTs and an abandoned wastewater treatment facility. Key member of the Army's negotiating team during Federal Facility Agreement negotiations with state and local agencies and EPA Region IV.
- Dover AFB Federal Facility, Dover, DE. Managed the development of a treatability work plan and laboratory and field testing of an air sparging/soil vapor extraction system for a TCE contaminated aquifer on base. This work was in response to a state RCRA Notice of Violation (NOV) to Dover AFB involving remediation of this aquifer. Supported base personnel in negotiation of a resolution to the NOV. Results of this program in EPA Region III indicate successful remediation of groundwater using this technology.
- Morgantown Ordinance Works, Morgantown, WV. Supported the Army and the PRP group in negotiations with EPA regarding the remedial program at this former ordnance plant. Served as the lead technical coordinator for all technical work on the project. Developed the scope and managed the performance of a legal, historical and cost recovery study for the Army involving their roles as a PRP on the site. Represented the Army with the site PRP group (Olin, DuPont, and Tenneco) in negotiations with EPA Region III regarding potential site remedies and the site RI/FS.

Managed and developed an innovative project management system for the Omaha District's environmental programs. This system included aspects of project management philosophy as well as total quality management.

Managed a section of environmental project managers in the Environmental Branch, Omaha District. Duties included supervision and monitoring of junior staff as well as appraisals of performance and budget considerations.

**RANDALL GRACHEK, P.E. -5-**

**Project Engineer, HDR Engineering Inc., Omaha NE (1985-1988).**

Project Engineer on various municipal wastewater treatment system projects including:

- Batavia WWTP, Batavia, IL. Performed a sanitary sewer system evaluation using computer modeling for this Chicago area city. This computer model allows the city to predict flow variations and to size appropriate piping systems for their municipal sewer.
- Gillette WWTP, Gillette WY. Project engineer for the design of a 2-mgd activated sludge treatment plant. Responsible for development of drawings, specifications and the bid package for competitive bidding of this project. Designed unit processes included screening, grit removal, activated sludge, clarification, disinfection and sludge digestion.
- Texarkana WWTP, Texarkana, TX. Performed a value engineering study during the design of this activated sludge treatment plant. Focus was on innovative sludge management systems.
- Papio WWTP, Omaha, NE. Performed shop drawing reviews and construction oversight on this large activated sludge treatment plant. Review included primary clarification, settling basins and sludge handling/Incineration.
- Sidney WWTP, Sidney, NE. Prepared bid documents and provided construction oversight on this 1 mgd trickling filter plant. Designed unit processes including screening, grit removal, clarification, sludge digestion, trickling filters and disinfection.

Project Engineer on various hazardous waste projects including:

- Basin F, Rocky Mountain Arsenal Federal Facility, Denver, CO. Lead engineer in the development of the remedial action design for the 93-acre hazardous waste lagoon at the arsenal. Engineer for the elements of the remedial design including soil excavation and treatment, water treatment and storage, enhanced evaporation, waste pile and RCRA Cap installation. Contaminants included pesticides, demilitarized nerve gas agents and mustard gas. Also unexploded ordnance situations were encountered.
- Monroe Plant, Cozad, NE. Field engineer during the installation of recovery wells in a TCE contaminated aquifer. Project engineer for construction of an Air Stripping System to remove TCE from groundwater. Provided field oversight for sludge dewatering and closure of waste lagoons contaminated with TCE and heavy metals. This was a PRP Lead Project in EPA Region VII.
- Rural Ridge Nike Site, Pittsburgh, PA. Performed site investigation activities at this former Nike Missile site to characterize contamination from military operations including propellants, BTEX and TPH.

**Graduate Assistant - University of Nebraska - Lincoln, NE (1983-1985)**

- Assisted in teaching environmental/sanitary engineering courses and laboratories to undergraduate students. Teaching concentrated on chemical and biological water and wastewater treatment.
- Performed research involving Biological Denitrification of Water Supplies using Packed Bed Reactors. This Thesis research involved the use of facultative Aerobic (Anoxic) Microorganisms to convert Nitrate in water to nitrogen gas through microorganism's metabolic pathways.

**ACADEMIC BACKGROUND**

Masters of Science (1985) Environmental/Water-Wastewater Engineering, University of Nebraska, Lincoln Nebraska.  
Bachelors of Science (1983) Civil Engineering, University of Nebraska, Lincoln Nebraska.

**RANDALL GRACHEK, P.E. -6-**

**CITIZENSHIP**

United States

**REGISTRATIONS**

Professional Engineer: Nebraska (1989), Arkansas (2001), Florida (2004)

**PUBLICATIONS**

MS Thesis, "Biological Denitrification using Packed Bed Reactors," (1985). Presented to Nebraska State AWWA Conference in Lincoln, NE.

"Sheet Pile Barrier Walls as an alternative to Slurry Walls for Temporary Containment at Hazardous Waste Sites," (1990). Presented to HMCRI's "Superfund 90" conference in Washington, D.C.

"Case Study, Rhinehart Tire Fire Superfund Site," (1991). Presented to AWMA's annual conference in Vancouver, BC

"Community Relations Actions at Federal Facilities," (1992). Presented at the ADPA symposium in Alexandria, VA.