



### **CONTACT INFORMATION**

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# **EDUCATION**

BE, Environmental Engineering, Hofstra University 1994 ME, Environmental Engineering, Manhattan College 1995

### **PROFESSIONAL LICENSES**

Professional Engineer: New York, 2000

# PROFESSIONAL PROFILE

# **Omar Ramotar, PE**

# **Principal Engineer**

### **EXPERIENCE SUMMARY**

Over twenty-seven years of experience: Staff, Project, Senior, and Principal Engineer with Roux.

# **TECHNICAL SPECIALTIES**

Engineering services for the investigation, design, construction, operation, maintenance and monitoring of remedial systems for the remediation of contaminated soil, sediment, and groundwater.

# REPRESENTATIVE PROJECTS

- Project Manager and Principal-in-Charge for a multi-element (large scale removal action
  [45,000 cubic yards of impacted materials excavated and consolidated on-site/disposed offsite], large scale subsurface feature and UST removal action, and remediation and restoration
  of a 3.2-acre seasonal pond located in the Massapequa Preserve) remedial design of a USEPA
  Superfund Site in Nassau County, New York. Responsible for the Preparation of USEPA
  response letters, technical drawings, and 95% and 100% remedial design documents in
  accordance with the Record of Decision and Consent Judgment.
- Project Manager and Principal-in-Charge for design of a natural wastewater treatment solution for a 3,000-acre new industrial complex in Saudi Arabia. Roux Associates was tasked to design an Engineered Natural System (to treat all wastewaters: sanitary, process and stormwater) from construction through operation, incorporate transitioning through phases, and plan for future expansion of the facility and increased wastewater flow rates. The 23-acre ENS was designed to treat a total flow of 1.4 million gallons per day. The major system components include: dump station with five truck hookup ports to collect and convey sanitary wastewater during construction of the facility; three primary sedimentation and anaerobic treatment tanks; one oil/water separator; six patented enhanced subsurface flow constructed treatment wetlands; two down flow disinfection filters; UV disinfection system; One treated water holding tank which conveys the treated water back to the facility for reuse within the refinery and as irrigations for landscaped areas; two infiltration basins; and six activated alumina treatment cells to remove fluoride from facility stormwater runoff.
- Project Manager and Principal-in-Charge for the bidding, contractor selection, and remediation of the wetland and canal portions of a 440-acre tract in western Staten Island that was used as a Major Oil Storage Facility (MOSF) for petroleum products until the end of 1995. Responsible for the preparation of a Remedial Action Work Plans, technical drawings, and 95% and 100% remedial design documents and for the remedial construction phase in accordance with the Site-specific Consent Order issued by the NYSDEC. Key elements of the Work include dredging/excavation of approximately 20,000 cubic yards of petroleum and lead impacted sediments/soils, off-site disposal, and on-site capping and restoration of approximately 6.5 acres of disturbed wetlands. Routine activities included coordinating weekly construction meetings; preparing detailed NYSDEC monthly construction progress reports; ensuring Contractor compliance with remedial design, CAMP and project-specific erosion and sedimentation controls; and managing the overall project budget and schedule.
- Project Manager and Principal-in-Charge for the bidding, contractor selection, and remediation of a New York State Superfund Project. Responsible for the preparation of a Remedial Action Work Plans, technical drawings, remedial design documents and for the remedial construction phase in accordance with the Amended Record of Decision issued by the NYSDEC. Key elements of the Work include excavation and off-site disposal of



- approximately 20,000 tons of VOC impacted soils, on-site capping and in situ chemical oxidation. Routine activities included coordinating weekly construction meetings and preparing associated meeting minutes; preparing detailed NYSDEC monthly construction progress reports; ensuring Contractor compliance with remedial design, CAMP and project-specific soil erosion and sedimentation controls; and managing the overall project budget and schedule.
- Project Manager for the bidding, contractor selection, and remedial construction phase at a 40-acre former metals manufacturing facility in Staten Island under the NYSDEC Voluntary Cleanup Program. Responsible for overall construction management for dredging/stabilization and offsite disposal of approximately 7,000 cubic vards of metalimpacted sediments from a tidally influenced embayment area and creek system, off-site disposal of approximately 3,000 cubic yards of sediment, on-site consolidation of approximately 4,000 cubic yards of sediment; capping of fill material/bank stabilization; in-place abandonment of former water and sanitary sewer system; construction of an 8 acre asphalt cap, installation of new stormwater sewer system and restoration and mitigation of approximately 2 acres of wetland areas disturbed by ongoing remedial activities. Routine activities included coordinating weekly construction meetings; preparing detailed NYSDEC monthly construction progress reports; ensuring Contractor compliance with remedial design; and managing the overall project budget and schedule.
- Project Construction Manager for a NYCDEP storm and sanitary sewer construction project in Brooklyn, New York. Work included design and construction of approximately 690 linear feet of RCP storm sewer, approximately 725 feet of ductile iron sanitary sewer, 6 new house connection spurs, new sewer and sanitary manholes, and 12,000 square feet of asphalt removal and replacement. Routine activities included coordinating weekly construction meetings; ensuring Contractor compliance with remedial design, CAMP and SWPPP implementation; and managing the overall project budget and schedule.
- Project Manager for the preparation of a Feasibility Study Report and ongoing remediation of a 40-acre former manufacturing facility in Rensselaer, New York as part of the NY State Superfund Program. Responsible for the preparation and implementation of multiple large-scale IRM soil removal remedial actions resulting in approximately 12,000 tons of non-hazardous waste and 10,720 tons of hazardous waste shipped off-site. Also, responsible for the preparation and implementation of the remediation of two 80,000-square foot former wastewater treatment lagoons. Approximately 7,000 cubic yards of hazardous waste sediments shipped off-site. Approximately 4,000 cubic yards of riprap lining the perimeter of both lagoons mechanically screened to remove interstitial

- sludge within the riprap matrix. NYSDEC approval gained for on-site reuse of 3,200 tons of riprap saving the client approximately \$400,000 in disposal costs. Provided ongoing support for various tasks associated with constructing, operating, and maintaining the on-site groundwater treatment system.
- Principal Engineer and Project Manager for On-Site Environmental Monitor (OEM) Program implemented at the largest redevelopment project in New York City (over \$5 billion). Required to ensure environmental compliance with regards to air, stormwater, noise, traffic, and other relevant environmental concerns during the performance of any construction related activity across the 22-acre redevelopment project Site. The Project consists of the construction of 30 buildings (commercial and residential); eight (8) acres of public open space and approximately 1,200 below grade parking spaces and some retail and community facility uses. The Project also includes the development and construction a new storage and maintenance rail yard facility for the Long Island Rail Road (LIRR) below grade across two city blocks over which a platform will be constructed along with six of the Project buildings and some of the open space.

# **Additional Soil and Groundwater Remediation Experience**

- Principal in Charge and Project Manager for the preparation and implementation of a Remedial Action Work Plan (RAWP) at a former ink ribbon and carbon manufacturer in Glen Cove, New York. Scope of work included the removal of approximately 20,000 tons of listed-hazardous toluenecontaminated soil at various final excavation depths within 1.4acre area, followed by ISCO injections across the excavated area. All on-site sources of contamination were removed, and on-site groundwater was remediated to Site cleanup levels within 18 months from initiation of Site construction activities. Prepared Final Engineering Report (FER) and Site Management Plan (SMP) as required by the NYSDEC.
- Principal in Charge and Project Manager for the source-area excavation and treatment of groundwater and soil grossly impacted by light non-aqueous phase liquid (LNAPL), volatile organic compounds (VOCs), and hazardous materials at a 33,150 square foot lot entered into a NYSDEC Brownfield Cleanup Agreement site in Long Island City, New York. Prepared and certified the NYSDEC-required Remedial Action Work Plan, Site Management Plan and Final Engineering Report. Remediation efforts included removal of approximately 5,000 tons of grossly contaminated material removal using steel sheet piling and disposal/abandonment eleven (11) underground storage tanks (USTs) ranging in size from 2,000 to 25,000+ gallons that contain diesel fuel/fuel oil, mineral spirits, and linseed oil. In Situ Chemical Oxidation (ISCO) injections



- completed to address residual VOC contamination in soil and groundwater during the performance of the remedial action.
- Project Manager for the remedial design and remediation of a 23-acre former municipal landfill located in Glen Cove, New York as part of the NY State Superfund Program. The work was performed in accordance with Title 3 of the NYS Environmental Quality Bond Act under contract to the City of Glen Cove. Design elements included excavation of hazardous and radiological waste (8,500 cubic yards in total), 44,000 cubic yards of bulky waste, VOC and radiological waste monitoring, demo debris and waste separation and screening, dewatering, waste disposal, capping and site restoration. Additional work included the de-listing of a six acre "clean" portion of the site to allow the development of a ferry terminal and esplanade and development of alternative cleanup standards consistent with future site uses. Site remediation will accommodate site redevelopment as a commercial waterfront and operating ferry service and seaport area.
- Project Manager for the investigation and remediation of several sites spanning multiple blocks for a major pharmaceutical company in Brooklyn, New York. Environmental investigation is being conducted in preparation of possible property transfer. Responsibilities include development and preparation of investigation and remedial action work plans and coordination and management of resulting field investigation and remediation efforts. Project Engineer for a SVE/AS system to treat groundwater contaminated with VOCs and chlorinated VOCs at one 0.8-acre block. Designed and performed two SVE/AS pilot studies. Designed the full-scale SVE/AS system. Managed bidding, contractor selection, remedial construction, system start-up, operation, maintenance and monitoring phases for the full-scale SVE/AS system.
- Project Manager for the design of a soil and groundwater remediation system for a nationwide overnight delivery distribution center in Brooklyn, New York as part of the NYSDEC Voluntary Cleanup Program. A risk based remedial approach that called for the remediation of "hot spot" source area soils and mass-reduction of VOCs was successfully utilized for the Site. As a result, the focus of remediation was on reducing the mass of VOCs in on-site groundwater to a level where natural attenuation would be effective in remediation of VOCs. To address the contamination in the source area, a SVE/AS system consisting of 8 SVE wells and 17 AS wells was designed, constructed, operated, and maintained for a period of approximately 3 years. The SVE/AS system has been permanently shut down and the Site is currently in the post-remediation monitoring phase.

- Project Manager for the remediation of a former major pharmaceutical plant located in Hicksville, New York as part of the NY State Superfund Program. The project consisted of the excavation of non-hazardous soil from 5 on-site drywells and a former waste disposal area, implementation of a community air monitoring plan, coordination with the Long Island Rail Road (LIRR) for work performed within the LIRR's right of way, steel sheeting installation and removal, backfilling, monitoring well abandonment and replacement, transportation and disposal of 3,300 tons of VOC, SVOC and metal contaminated soil, and restoration of approximately 9,800 square feet of asphalt. A 7foot diameter steel caisson was used to support the deeper excavation required at the invert of two drywells. This innovative approach saved the client approximately \$50,000 in costs that would have been incurred by using a traditional steel sheeting support system to protect the on-site commercial building.
- Project Engineer for the complete design, implementation, and startup of five distinct air sparge (AS) and soil vapor extraction (SVE) systems for the remediation of gasoline contaminated groundwater and soils. Pilot studies were performed at several locations at an 850-acre petroleum terminal site in Rhode Island and lead to the design of full-scale AS and SVE remediation systems that are being used in a phased approach, to remediate selected areas of the site. The designs included specialized modeling techniques to determine the optimum system requirements and components.
- Project Engineer for the design and construction management of a soil remediation project at a 28-acre former pesticide warehouse facility in Dayton, New Jersey. The project consisted of the excavation and on-site consolidation and capping of 7,500 cubic yards of pesticide contaminated soil. The capped areas were designed to be incorporated into a Site re development plan for use as a storage and trailer parking lot. A Soil Erosion and Sedimentation Control Plan and a NJPDES General Permit were prepared for the project.
- Project Engineer for the design and remediation of a former sanitary wastewater leaching system at a 16.6-acre NYS RCRA site in Bethpage, New York. The project consisted of the excavation, staging, transportation, and disposal of VOC, SVOC, metal and pesticide contaminated soil. Approximately, 5,100 tons of non-hazardous soil, 1,300 tons of hazardous metals contaminated soil and 350 tons of hazardous VOCs contaminated soil. Structures remediated consisted of an imhoff tank, 33 leach pools, 2 distribution boxes, 2 stormwater drains, 2 sludge drying beds, and a blast fence area.
- Staff Engineer for the preparation and implementation of a Soil IRM plan for a major pharmaceutical plant in Brooklyn, New York as part of the NYSDEC Voluntary Cleanup Program. Work



elements included contractor plan preparation, steel sheeting and removal, excavation of hazardous and non-hazardous waste, VOC and particulate monitoring, dewatering water management, waste transportation, disposal, and tracking, backfill placement and compaction. IRM Soil remediation included excavation of over 1,620 tons of non-hazardous soil and 524 tons of hazardous soil.

- Senior Engineer for design and construction of several elements
  of a 40 gpm treatment system for a 40-acre former
  manufacturing facility in Rensselaer, New York. BASF Site.
  Design support for 4,000 linear feet of collection trenches, 7
  extraction well vaults, 2 air release chambers, and 2
  groundwater re-injection galleries and a 50 foot by 60-foot
  treatment system containment pad. Coordination of
  construction efforts between mechanical and electrical
  contractors.
- Project Engineer for preparation and certification of Final Engineering Report and Site Management Plans for remediation of a 40-acre former metals manufacturing facility in Staten Island under the NYSDEC Voluntary Cleanup Program. Remediation included dredging/stabilization and off-site disposal of approximately 7,000 cubic yards of metal-impacted sediments from a tidally influenced embayment area and creek system, off-site disposal of approximately 3,000 cubic yards of sediment, on-site consolidation of approximately 4,000 cubic yards of sediment; capping of fill material/bank stabilization; in-place abandonment of former water and sanitary sewer system; construction of an 8 acre asphalt cap, installation of new stormwater sewer system and restoration and mitigation of approximately 2 acres of wetland areas disturbed by ongoing remedial activities. Routine activities included coordinating weekly construction meetings and preparing associated meeting minutes; preparing detailed NYSDEC monthly construction progress reports; ensuring Contractor compliance with remedial design; and managing the overall project budget and schedule.
- Project Engineer for preparation of Final Engineering Report and Site Management Plan for the remediation of a 40-acre former manufacturing facility in Rensselaer, New York as part of the NY State Superfund Program. Remediation included: multiple large-scale IRM soil removal remedial actions resulting in approximately 12,000 tons of non-hazardous waste and 10,720 tons of hazardous waste shipped off-site; remediation of two 80,000-square foot former wastewater treatment lagoons; groundwater containment and treatment system construction and Site-wide capping.

# **Additional Feasibility Study Experience**

Principal Engineer for the preparation of a Feasibility Study
 Report for a NYS Superfund Site in Glen Cove, New York. The

- Site is approximately 15 acres in size with a 1.4-acre portion of the site impacted by historical disposal of industrial wastes. Approximately 10,000 cubic yards of non-hazardous and hazardous waste has been identified to be potentially shipped off-site.
- Principal Engineer for preparation of a Focused Feasibility Study to optimize ongoing free-product recovery efforts for an 18-million-gallon release of petroleum hydrocarbon product from a former refinery and petroleum storage terminal in Brooklyn, New York. The remedial action objectives of the feasibility study were removal of free product to the extent practicable, prevention and/or elimination of any product seeps from the Site that result in visual petroleum product sheens on surface water and eliminate through removal. treatment, and/or containment the source of surface water contamination to the extent practicable. Technologies evaluated and retained included: Excavation, skimming, dual pump liquid extraction, water flooding, surfactant enhanced subsurface remediation, cosolvent flushing, vapor enhanced fluid recovery, enhanced fluid recovery, and natural source zone depletion.
- Project Manager and Senior Engineer for the preparation of a Remedial Action Selection (RAS) Report for a 9-acre landfill in Rensselaer, New York as part of the NYSDEC Voluntary Cleanup Program. The primary goal of the RASR was to select a remedial alternative that was most protective of human health and the environment under the contemplated future use of the Site as a landfill with an integrated wildlife habitat vegetative cap. The final remedy for the landfill will include 1,000 linear feet of perimeter groundwater collection trenches, a 40-gpm treatment system for metals and VOCs and excavation and in situ chemical oxidation of VOC source areas.
- Project Engineer for the preparation of a Focused Feasibility Study (FFS) Report for the remediation of two dry wells at a formerly government owned, contractor operated, 105-acre New York State RCRA site in Bethpage, New York. The soils below and in the vicinity of each drywell were contaminated at various locations from 2 to 55 feet below land surface (bls) with PCBs exceeding NYSDEC standards. The FFS evaluated the following options: no action, in situ thermal desorption and excavation and off-site disposal. The no action alternative was recommended because the Site characterization and exposure assessment results indicated that there was no potential risk to persons using the Site for commercial or industrial activities, PCB impacted soils had been previously excavated to a depth of 28 feet bls and because PCBs are generally immobile in the environment, so migration is unlikely.



# **Additional Miscellaneous Design Experience**

Project Engineer for the design and construction management
of a private vehicle fueling area at a New York City railyard.
System components included: UST and process piping,
level/monitoring systems, pump dispenser and keycard system,
pump island, canopy and fire suppression system. Design met
all substantive requirements of the New York City Fire
Department (NYCFD) and New York City Department of
Buildings (NYCDOB). Tasks included equipment selection,
equipment sizing, piping layout, preparation of plans and
specifications and shop drawing review and approval.

# **Additional Stormwater Design Experience**

• Project Engineer for the design and construction management of a stormwater drainage project for a 28-acre former chemical pesticide manufacturing facility located in Dayton, New Jersey. The stormwater drainage system consisted of multiple catch basins, over 2,000 linear feet of reinforced concrete pipe ranging in size from 15 to 30 inches, and a recharge basin. The TR 55 computation method was used to size the drainage system for a 25-year storm event. The drainage system was designed in strict accordance with the New Jersey Department of Environmental Protection (NJDEP), the New Jersey Soil Conservation District (NJSCD) and the local planning departments.

# **Additional Engineered Natural System Design Experience**

- Senior Engineer for the design of a compost treatment (CT) cell retrofitted into an existing sludge drying bed located at an integrated aluminum smelting and fabricating facility in Massena, New York. The principal objective of the CT will be to remove and sequester low level PCBs in the Site wastewater stream prior to discharge to the Site's permitted outfall. The proposed CT cell will be incorporated into the wastewater treatment process to evaluate PCB treatability in a CT environment as an alternative to other technologies currently being considered for the Site. The CT cell will be designed to accommodate variable hydraulic loading rates (10 to 70 gpm) and retention times in order to evaluate and define optimal system performance.
- Senior Engineer for the design of two pilot scale compost treatment (CT) systems for stormwater management at an active aluminum manufacturing facility in Lafayette, Indiana. The design included the retrofit of a 1,000 gallon above-grade septic tank (to handle a variable flow of 0.1 to 1 gpm) and a 100,000 gallon above-grade storage tank (to handle a variable flow of 10 to 50 gpm). The remedial goal of the pilot CT systems is for the removal of PCBs and aluminum from stormwater currently collected in the on-Site 100,000-gallon storage tank. The pilot systems were designed for incorporation into the existing stormwater system, thus precluding the need for

- additional permitting. The systems have been designed for year-round operation.
- Senior Engineer for the development of design improvements for a 45-acre former Landfill in Holtsville, New York to minimize the source of contamination to a downgradient pond and its' associated creek. A detailed budget water analysis was performed comparing current and proposed conditions to determine the best methods to minimize infiltration into the landfill and divert the stormwater runoff to the onsite recharge basin and away from the landfill. The proposed strategy currently entails modifying the existing stormwater conveyance controls (i.e., lining drainage swales), reducing the permeability of the landfill surface through the addition of recreational areas and lined stormwater storage ponds, and planting hybrid poplar trees to increase evapotranspiration at the Landfill. Overall, these modifications would be expected to reduce annual infiltration in the landfill surface from 24 inches to 18 inches, equivalent to approximately 8.2 million gallons of water annually.
- Project Engineer for the design of structural SMPs to manage runoff generated from a LEED certified 70,000 ft2 athletic facility, which is being constructed as part of a redevelopment of a 110-acre park facility in Staten Island, New York. Innovative structural stormwater management practices incorporated into the Site design include the following: micropool extended detention pond and infiltration basin. The pond will be comprised of a sedimentation forebay, shallow marsh, and pond. Suspended solids will drop out as runoff passes through the forebay, thereby enhancing treatment performance, reducing maintenance, and increasing the longevity of the system. The permanent pool provides additional dry storage capacity to mitigate peak flow rates prior to discharge into the overflow meadow. The forebay and pond are designed with shallow ledges along its fringe to support aquatic marsh plants. These wetland plants will aid in the stormwater treatment by impeding flow and trapping contaminants as they enter the forebay and pond. The fringe vegetation will stabilize and protect deposited sediments from resuspension during large storm events. The fringe wetland plants will include species such as rushes, reeds, and sedges, designed to improve water quality through the trapping and filtering of fine particles and soluble pollutants (metals, organics, and nutrients). Effluent from the micropool extended detention pond will then be discharged to an infiltration basin (i.e., Overflow Meadow) planted with a variety of native wildflower and wetland species for groundwater recharge.
- Project Engineer for the design of a pilot constructed treatment wetland system to treat stormwater discharge from an aluminum manufacturing facility located in Massena, New York. The 0.3-acre treatment system uses activated alumina and



compost filter cells, and a sub-surface flow wetland to treat 1,400-4,300 gallons of stormwater daily.

# Additional Operation and Maintenance (O&M) Experience

- Senior Engineer responsible for supporting the OM&M of a 40 gpm treatment system for a 40-acre former manufacturing facility in Rensselaer, New York. Processes and system maintained include aeration, bag filtration, air stripping, metals adsorption, liquid, and vapor phase carbon adsorption.
- Senior Engineer responsible for the O&M and monitoring of a soil vapor extraction (SVE) and air sparge (AS) system for nationwide distribution center in Brooklyn, New York as part of the NYSDEC Voluntary Cleanup Program. O&M activities included system operation and maintenance, performance monitoring, soil gas monitoring, quarterly monitoring, and preparation of quarterly and annual status reports for submission to the NYSDEC. The SVE and AS system consists of 8 SVE wells and 17 AS wells and was designed, constructed, operated, and maintained for a period of approximately 3 years. The SVE and AS system has permanently shut down and the Site is currently in the post-remediation monitoring phase.
- Project Engineer responsible for the O&M of a 430 gpm, dualphase, product recovery system in Greenpoint, Brooklyn, New York. Processes and system maintained include dual-phase groundwater and product recovery, low profile air strippers and a catalytic oxidation unit. The Site encompasses one of the nation's largest petroleum releases (18 million gallons).
- Project Engineer for the metals removal system upgrade of a
  430 gpm, dual-phase, product-recovery system in Greenpoint,
  Brooklyn, New York. Upgrades included design, procurement,
  and construction oversight to install a metals removal system,
  allowing the remedial system to run at full capacity with
  minimal O&M. The metals removal system included two 10-foot
  diameter continuously backwashing sand filters, process liquid
  aeration system and ancillary equipment. The pre-design phase
  also included the performance of an extensive bench study to
  optimize the system design.
- Project Engineer for the control system upgrade of a 430 gpm, dual-phase, product-recovery system in Greenpoint, Brooklyn, New York. Upgrade included design procurement and construction oversight to install a new control system to eliminate intermittent power surges and sags which, in combination with the communication problems, had caused the previous control system to operate unpredictably. These upgrades included installation of new remote input/output systems, new uninterruptible power supplies and new remote communication cables at all six remote well sites.
- Staff Engineer for the O&M of a product recovery system in Howard Beach, New York. O&M activities include system

- maintenance and performance monitoring through on-site and off-site monitoring wells.
- Staff Engineer for the O&M of a 40 gpm groundwater remediation system at an industrial facility in Queens, New York as part of the State Superfund Program. O&M activities included system maintenance, effluent sampling, quarterly monitoring, and preparation of quarterly and annual status reports for submission to the NYSDEC.
- Staff Engineer for the design, implementation, and O&M for two
  remedial treatment facilities to remediate groundwater
  impacted by leaking USTs at two service garages owned by a
  New York state telecommunications company. The system was
  designed to treat groundwater at a flowrate between 5 and 10
  gpm using granular activated carbon adsorption treatment
  units.

# Additional Health and Safety Management or Facility Decontamination or Demolition Experience

- Principal Engineer for the decontamination and decommissioning (D&D) of a 700,000+ square foot facility, in Brooklyn, New York for a major pharmaceutical company. The D&D activities were performed to allow for future use of the former facility for commercial, retail, and/or industrial purposes after renovation and redevelopment by others, by removing, cleaning, encapsulating or otherwise abating: (1) contaminants in indoor concrete identified during previous environmental investigations, (2) pharmaceutical manufacturing residues in ductwork identified during previous environmental investigations, (3) pharmaceutical manufacturing residues in select existing manufacturing infrastructure [including but not limited to relic air handling units (AHUs), dust collection systems, and air exhaust units], and performing partial interior building demolition and cleaning in connection with such infrastructure, (4) the horizontal drain piping associated with the eighth floor laboratories, and (5) paint containing polychlorinated biphenyls (PCBs) at a concentration of 50 milligrams per kilogram (mg/kg) or greater.
- Senior Engineer responsible for providing both worker and community Health and Safety through the monitoring of air particulates and VOCs during the electrical upgrade of pharmaceutical manufacturing facility in Brooklyn, New York.
   All work was performed in accordance with OSHA, NYSDEC and USEPA protocols for worker and community health and safety monitoring.
- Senior Engineer responsible for providing both worker and community Health and Safety through the monitoring of air particulates and VOCs during the construction of a parking lot redevelopment project for a pharmaceutical manufacturing facility in Brooklyn, New York. All work was performed in



- accordance with OSHA, NYSDEC and USEPA protocols for worker and community health and safety monitoring.
- Staff Engineer and Site Health and Safety Officer for the decommissioning of a pharmaceutical manufacturing facility in Brooklyn, New York. Responsibilities included construction oversight of all contractors for the following: dewatering, removal of 26 USTs ranging in capacity up to 30,000 gallons, excavation and stabilization of soil contaminated with VOCs, lead and mercury, and disposal of all waste generated. Additional responsibilities included providing both workers and community Health and Safety through the monitoring of air particulates, VOCs, and mercury vapors. All work was performed in accordance with OSHA, NYSDEC and USEPA protocols for worker and community health and safety monitoring.
- Staff Engineer and Site Health and Safety Officer providing
  construction oversight and management for the completion of
  a building demolition and UST Removal Program at a metals
  manufacturing facility in Staten Island, New York. The project
  included asbestos and lead abatement oversight prior to
  building demolition activities and the removal of six 550-gallon
  gasoline USTs, one 1,000-gallon No. 2 fuel oil UST and one 600gallon No 2 fuel oil UST. A total of four buildings, two smelting
  kettles, a 200-foot emissions stack and a 50-foot water tower
  were removed as part of the demolition program.
  Responsibilities included providing both worker and

community Health and Safety through the monitoring of air particulates and VOCs, performing all required sampling, waste disposal tracking to document all activities performed, providing construction oversight of all contractors, and preparing weekly progress reports.

# **Additional UST Experience**

- Staff Engineer for the excavation oversight of 11 gasoline USTs, one waste oil UST, three pump islands and all associated underground and aboveground piping at a national railroad company in Queens, New York. Field oversight included postexcavation and waste characterization soil sampling, health and safety monitoring, supervision during the removal of the USTs and preparation of a Closure Report.
- Staff Engineer for the excavation oversight of three 8,000-gallon USTs, two pump islands and all associated piping at a service station in Greenwich, New York. Field oversight included postexcavation and waste characterization soil sampling, health and safety monitoring, supervision during the removal, cleaning, and disposal of the USTs and preparation of a Closure Report.

#### **PROFESSIONAL TRAININGS**

OSHA 40-hour Health & Safety Course, 1995

OSHA 8-hour Health & Safety Refresher Course, 1996-2021