



David L. Russell, P.E.
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EDUCATION:

- *University of Illinois, Urbana, BSCE, 1966
 - *West Virginia University, Morgantown, MSCE, 1967
 - *Additional Graduate School Work: SUNY at Buffalo, Work on MSChE, 1982-1983.
 - *Faculty Instructor Environmental Engineering, College of Civil Technology, Southern Technical Institute, Marietta, Georgia, 1986-1989.
- Instructor: American Institute of Chemical Engineers, Courses: Practical Wastewater Treatment and Hazardous Materials & Hazardous Wastes

PROFESSIONAL:

- Who's Who in Engineering, 1995 to date
- *Registered Professional Engineer: Pennsylvania, and Georgia, Arizona, Kansas, Iowa, and (inactive) TN, NY, AL, SC and IL..
- Associate, Board of Certified Safety Professionals (2019)
- American Institute of Chemical Engineers
Atlanta Chapter, American Institute of Chemical Engineers Treasurer 1998-2016
Past Chairman, 2008-2010
- Water Environment Federation -Emeritus Member, Member since 1975
- *Member Editorial Advisory Board – Industrial Wastes Magazine
- Member Program Committee – Industrial Wastes, and Groundwater Committees since 1990
- Chairman Pollution Prevention Committee 1999-2001
- Chaired, established, organized, and ran a number of pre-conference seminars on various technical topics related to Petroleum Pipelines, Petroleum Refineries, and pollution control.
- Chairman Groundwater Committee 1999-2003
- *Chapter Author, WPCF Manuals of Practice on Hazardous Waste Site Remediation, Municipal Operations (Safety), and Industrial Waste Treatment Practice (Wastewater Sampling)
- Contributor and Associate Editor, Wiley's Water Encyclopedia
- *Instructor: Environmental Institute, Marietta, GA- 1992-1998
Helped found the program for Environmental Assessments in 1992
Lectured on Pesticides, Hazardous Materials and Hazardous Wastes, Safety, Underground Storage Tanks, Above Ground Storage Tanks, Air Pollution and Ethics of Environmental Assessment

Guest Lecturer, NATO Advanced Study Institute, Zhomtyr Ukraine, August, 2005 **Subject: Corrective Actions After A Chemical Incident or Spill**

Guest Lecturer, NATO *Advanced Science and Technology for Biological Decontamination of Sites Affected by Chemical and Radiological Nuclear Agents* -Brussels, Belgium 2005
Remediation Alternatives on High Toxicity and Dangerous Sites.



Research Associate/ Lecturer/ Principal Investigator- 3 months 2007-08: Central Mining Institute, Katowice, Poland: "Method for Removing Radium from Mining Waters," Sponsored by EU WaterNORM grant.

Guest Lecturer, NATO Advanced Scientific Institute- **Ecoterrorism** Lectures and Responses- Venice, Italy, July 1-4, 2007

Lecturer: Haward Middle East Institute, Abu Dhabi, UAE. Courses on Water Supply, Security, Terrorism, Environmental Control, ISO 14000, Nuclear Safety, Oily Water Management, Establishing and Running a Security Force, Microbiology of Wastewater Systems, Sequencing Batch Reactors, Troubleshooting a Wastewater Treatment Plant, and other subjects: 2008- 2018

"Rethinking Sustainability- The Technology Factor", at the 8th International Phytoremediation Conference, Parma, Italy, September 28, 2010,

PUBLICATIONS and Other Work

Books:

Remediation Manual for Petroleum Contaminated Sites, Technomic Press (Now Francis and Taylor/CRC Press), 1992

Practical Wastewater Treatment, Published by John Wiley, New York, 2006, Chinese Edition published in 2011

Remediation Manual for Contaminated Sites CRC Press, published fall, 2011

Industrial Security- Managing Security in the 21st Century, with Col. Pieter Arlow, SADF, published by John Wiley, New York, 2014

Second Edition: Practical Wastewater Treatment, Published by John Wiley, New York, February 2019

Associate Editor 2018 Water Encyclopedia (John Wiley Press):

Extreme Events and their Impacts (Planning for Extreme Events)

Environmental Permitting in the US and EU: A comparison

Horizontal Well Hydraulics

In Chemical Engineering Magazine:

"Understanding Groundwater Monitoring", October, 1987

"Underground Storage Tanks... Potential for Economic Disaster", with Steven Hart, Mar.1987.

"Managing your Environmental Audit", June, 1985.

"Monitoring and Sampling Liquid Effluents", October, 1980

"Measurement Uncertainties in the NPDES Permit System', with J. Tiede, October, 1978.

"

In Purdue Industrial Waste Conference:

"Design of an Enclosed Composting Reactor", 1985.



"Thermal Sludge Drying... Drum Dryer Systems", 1985

"Now You See It...", 1978 (article on statistics and environmental discharges)

Other Publications:

Occasional contributing author to Environmental Protection Magazine and Atlanta Realtor, Magazine 1987-1992

Water Environment Federation Manual of Practice: Chapter author for "Emergency Response" and "Safety", 1995

"Minimizing Adverse Effects of Military Decontamination," presented at the NATO Scientific Conference on Military Decontamination, Bucharest, Romania, October, 1998

"Case History: Comparison of Soil Vapor Extraction and Conventional Geotechnical Survey Methods," with Lee Staska and Mark Mow, GA Water Environment Conference, March, 1995, Atlanta, GA.

Principal contributing author to "Evaluation of Alternative Drilling Technologies and Subsurface Confinement Barriers for Single Shell Tanks at Hanford, Phase I . " report for DOE.

"An American Perspective on Cleanup of Petroleum Contamination." Bucharest, Romania, for Romanian Petroleum Industry with , Ion Petre, .

US Asia-Environmental Partnership Lecturer for Envirovison –2001, Bombay, Ahamedabad, Hyderabad, Delhi, and Bangalore, India – June 2001 Lectures on Hazardous Wastes, Remediation, and US Environmental Practice

Articles and lectures on Wastewater treatment modeling and monitoring

Instructor for the American Institute of Chemical Engineers: Environmental Engineering, and Hazardous Wastes

Ecuador: Principal Investigator for Aguinda vs. Texaco regarding the contamination of the Oriente, Lago Agrio, Ecuador by Texaco's Petroleum Operations in Ecuador.

Instructor for NATO Advanced Study Institute, Advanced Science and Technology for Sites Contaminated with Chemical and Radiological Nuclear Agents; papers on "Remediation on High Toxicity Sites", and Practical Lessons from the Wastewater Field", August, 2005.

Modern Pumping Today (Highlands Press, Birminham AL.) Articles on Hydraulic Transients (Water Hammer), and Uniform Distribution in Piping Networks, and a current series on the accuracy of head loss estimates in piping: Moody Diagrams vs. Colebrook C factors. In issues from April- July, 2014.

Georgia Water Environment Federation, Industrial Waste Conference, Athens, GA, March, 2019, Accuracy in Industrial Discharge Permitting to be published in Chemical Engineering Progress fall of 2019

Training and Instructional Courses Taught (2009 to Date)



Security and Terrorism to ARAMCO (Saudi Arabia) (two occasions) and separately to GPIC (Bahrain)

Process Hazard Analysis, for SABIC, Dammam, Saudi Arabia.

Water Supply System Security to Dubai Water and Power

Water Distribution System Modeling to Abu Dhabi Distribution Company

Certified Radiation Supervisor/ Radiation Safety Officer (public course) in Abu Dhabi

Chemical Engineering for Non Chemical Engineers to Occidental Petroleum Operators and supervisors (Dammam)

Hazardous Materials, Hazardous Materials Movement and Hazardous Wastes in Kuala Lumpur, Malaysia and in Abu Dhabi, UAE for petroleum and aluminum companies

Emergency Management and Emergency Response for various companies

HAZWOPER and HAZCOM for various companies

Oily Water Treatment for various petroleum companies in the Middle East

Risk Assessment and Management to Undergraduate Students in Lublin, Poland

Operation and maintenance of a Sequencing Batch Reactor, and Microbiology for Wastewater Treatment plants, Doha, Qatar- for the municipal authority

Legal Consulting Work-Expert Witness & Research

Safety Consulting for Attorney in New Hampshire regarding a manhole cover dislodged during rainstorm due to poor maintenance, and a person who fell into the manhole and drowned.

Asbestos consulting & deposition—Hawaii, 2016

Safety Consulting and deposition – New Orleans area, Louisiana, ongoing, scheduled for trial in 2019

Sewer Damage Consulting—Atlanta area, 2018

Municipal Transfer Odor control and disposal problems, Scheduled for arbitration, and trial. Partial settlement September 2018, trial resuming in late 2019

Stormwater consulting and scheduled deposition, Lake Ola, Orange County, FL. Deposition scheduled for fall 2019

Stormwater Consulting Report, New Jersey, 2008

Investigation, research, and reports, and trial (witness) Aguinda vs. Texaco and Chevron vs. Donziger 2003-2013



Air Pollution Expert Witness—1968 for RRI in Virginia

List of Definition Missions and Studies Completed for US Trade and Development Agency

Note: Dates are approximate

DM Ghana LPG Study- 1993

DM Venezuela Oil and Environmental Projects, 1996

DM Venezuela Equipment and Facility Projects for PDVSA 1997

DM Venezuela Evaluation of Petrochemical facilities in Zulia State Refinery 1999

Desk Study – Evaluation of Cleanup of Contamination from Chernobyl –1989

DM Romanian Chemical Industry- 1994

Desk Study – Wyala of Fees Morocco – Landfill project 2002

DM Venezuela- Evaluation of Oil and Gas Pipeline Projects on Lake Maricaibo (Date Approximate – 2002)

WORK HISTORY:

***1986- DATE:**

Global Environmental Operations, Inc., Lilburn, Georgia

(Corporate and industrial chemical and environmental engineering and consulting).

Global Environmental Operations, Inc. (GEO) was developed as an outgrowth of corporate consulting which Mr. Russell has been performing for clients. GEO is truly worldwide, in that it has performed consulting for organizations in Ghana (Africa), Germany, Romania, and Hungary. GEO also has clients of all sizes all over the United States. These clients are industries and other consulting firms. GEO is a full service industrial consulting firm which has capabilities in air pollution, water pollution, and solid and hazardous waste control as well as process engineering. Mr. Russell has provided technical advice to a group of insurance companies on processes involving the manufacture of explosives and the resultant environmental contamination. Other areas of activity have included radioactive waste remediation activities in Richland, Washington; preparation of strategic response plans and remediation plans for bulk petroleum terminals in the Southeast; specialty remediation projects on petroleum and organic hazardous wastes contaminated sites, and expert witness and legal support activities. Mr. Russell is familiar with all aspects of chemical plant, petroleum and agricultural chemicals plants and their environmental challenges, including hazardous wastes work and regulatory cleanups. He has written extensively on subjects dealing with environmental control in the chemical and petroleum industries, and articles on hazardous wastes management, property transfer liabilities and assessments, and on a number of other environmental topics. Mr. Russell has also provided consulting services to other large engineering firms, in environmental and specialty areas relating to cleanups and waste management.



Mr. Russell was the principal investigator for the Lawsuit filed by the Lago Agrico Plaintiffs against Chevron alleging massive contamination of the Oriente Region of Ecuador, and founded and led the investigation team to find that contamination. When the contamination was not found, he informed the plaintiffs that the alleged contamination did not exist. He left the case in 2005, and later found out that the Plaintiffs had taken his company's reports and falsified the data before submitting them to the Ecuadorian Court complete with signature and seal.

He later served as a witness **for** Chevron in Federal Court where he provided sworn testimony indicating that the original Plaintiff's claims were unfounded, and that the contamination existing in Ecuador was as a result of PetroEcuador's drilling and operating practices. He was found to be a credible witness.

Global Environmental Operations, Inc. has performed work for a Pepsi Cola bottling company in Eastern Europe and has conducted environmental audits of their facility and supervised environmental audits for new acquisitions. GEO also assisted them in solving water quality problems with their supply.

GEO has performed groundwater monitoring and remedial investigations, RCRA (Hazardous Waste) audits, solidification studies, waste minimization studies, and SARA environmental release notifications for a wide variety of clients, including industrial and commercial firms. GEO has also been involved in obtaining permits for various thermal destructors and incinerators in Georgia and Arizona, , and have prepared comprehensive environmental evaluations for two refineries in Hungary on a subcontract as part of an Agency For International Development Trade Definition Program team. GEO worked with Romanian chemical companies to prepare studies of portions of the chlorinated organic chemical industry (pesticides, solvents, dyes etc), and advised Romanian companies about environmental compliance and cleanup.

GEO has been extremely active in dealing with infrastructure issues in working with commercial and industrial clients to develop new facilities, with schools to deal with rehabilitation of utilities, and with other commercial establishments to help them manage and repair their infrastructure needs including water systems and sewers, and waste water treatment facilities. GEO has also provided research and testimony for a number of legal clients involving different and complex issues. A number of these issues involved legal and physical research for accident investigation and reconstruction.

- In New York, GEO provided consulting for evaluation of construction liability in the Hudson River when a barge grounded due to a missed benchmark elevation on construction of piling which was protecting a critical pipeline. This led to favorable settlement.

- In New Jersey, GEO turned a construction management failure case around by identifying contributory negligence on the part of a third party which proved that the Plaintiff's damage from flooding was caused by the NJ DOT's traffic management activities.



- In Utah, GEO provided critical reconstruction of historical discharges from explosives manufacturing and processing operations, and provided information for the insurance company defending a claim of “sudden occurrence”.
- GEO has evaluated critical failures in any number of chemical and physical plants and provided analysis and trouble-shooting to get processes to return to their correct and environmentally compliant operations. Many of these involved analysis of physical problems and rectification or replacement of equipment.
 - GEO prepared environmental disclosures for USEPA Regions II, III, IV, and V to help protect a client from liability and start an investigation for a complex environmental fraud case against a major manufacturer.
 - In 2007-2008 GEO was contracted with the Central Mining Institute, in Katowice, Poland on an EU Grant under their WaterNORM project. The research topic was to find a way to remove Radium (and other radioactive materials) from the highly saline groundwater generated by the Polish Coal Mines. The project was partially successful.
 - GEO designed a new water system disinfection system for Hercules, Inc. Savannah, Plant.

Since 2010 GEO has been providing training services for a number of clients in the Middle East, and far East. The principal areas of lecture include safety and security, root cause analysis and fault tree analysis, Risk Analysis and setting up Risk Tables, and security and wastewater treatment for various clients.

Some of the clients of instruction include: Dubai Water and Power, a variety of oil companies (oily water treatment), Hazardous Wastes Treatment and handling, and Security, Safety and Risk Assessment for Aramco, and other companies, and a number of process and engineering courses for the Petroleum Industry in the Middle East, including Hazmat, Oily Water Treatment, Refinery Wastewater Treatment, Process Troubleshooting, Chemical Engineering for non-engineers, and management and analyses courses on operations and management subjects.

GEO has also been involved in preparing specifications for new boilers for energy production from waste animal wastes (turkey litter) in the state of North Carolina. Both boiler systems required the evaluation of the options for deionization and reverse osmosis as part of their considerations for design and installation.

GEO is currently working with several attorneys in support of litigation involving safety and environmental claims

GEO is also working on a new anaerobic digester system for a dairy herd to treat livestock wastes through anaerobic digestion and produce recoverable and profitable quantities of methane. This involves complete design, installation of sensors and monitors, control of potential flammable gasses, and operation and instrumentation of the anaerobic digester equipment

***1985-1986**

LAW ENVIRONMENTAL SERVICES, MARIETTA, GEORGIA.



PROCESS ENGINEER, (groundwater and wastewater, process design, environmental audits, remediation).

***1984-1985**

LOCKWOOD GREENE ENGINEERS, ATLANTA, GEORGIA.

PROJECT MANAGER, (Solid and hazardous waste business development).

***1981-1984**

SELF-EMPLOYED, WILLIAMSVILLE, NEW YORK.

CONSULTING ENGINEER, (chemical process, wire and cable, rubber and other manufacturing industries).

***1979-1981**

HOOKER CHEMICALS, NIAGARA FALLS, NEW YORK

ENVIRONMENTAL MANAGER (water pollution control programs, agricultural chemicals).

***1977-1979**

ALLIED CHEMICAL, MARCUS HOOK, PENNSYLVANIA

SENIOR ENVIRONMENTAL ENGINEER, (Division Staff for phenol, pesticide, specialty chemical and agricultural chemical plants- solving plant environmental problems, including boiler modeling and permitting for a coal fired power plant.).

***1975-1977**

IMC CHEMICAL CO., TERRE HAUTE, INDIANA

ACTING ENVIRONMENTAL MANAGER, (Nitro-paraffins, explosives manufacturing and agricultural chemicals, including development of safe methods for disposal of explosives).

***1971-1975**

MERIDIAN ENGINEERING, PHILADELPHIA, PENNSYLVANIA

CIVIL and CHEMICAL - ENVIRONMENTAL ENGINEER, (municipal and industrial water and wastewater treatment, treatment plant design, project management).

1969-1971

BUCHART-HORN ENGINEERS, LEWISBURG, PENNSYLVANIA

CIVIL ENGINEERING Wastewater Treatment Plant design and rehabilitation, and air pollution work for municipalities and industry including a coal crushing operation.

1967-1971

VARIOUS CONSULTANTS, WASHINGTON, DC

CIVIL Engineering and air pollution engineering for two consultants in the Washington DC area. Working on municipal wastewater treatment designs, and on air pollution stack testing and consulting and development of testing equipment for calibration of Method V air testing system.

Recent Projects:

Presentation for Georgia Geologic Society, 2012, Design of a Horizontal Well Remediation System, Marietta, GA

Hampton Industries: Obtained relief from Stop Sale Order under FIFRA, (August, 2013)

Karen Bufford, (Modeling Study for air impacts of Goddard College Boiler System), August 2013 (Pro Bono)



Design of a Turbine and Boiler Water Treatment System for a food processing company in North Carolina.

Legal Investigation of Groundwater Contamination by Trojan Powder/ IMC/ Mallinkrodt Chemical in Springville, UT (completed 2013)

Several Phase I investigations on commercial properties in and around Atlanta, GA where groundwater contamination was a concern.

Lectures at Lublin Polytechnic Institute, Lublin, Poland, November 2011 and taught remediation principles and emergency response planning to students.

Consultant to Law firm in Hawaii, regarding Asbestos Exposure of one of their clients from working in her father's plumbing shop when he cut and repaired pipes and gaskets and pumping equipment and valves which contained asbestos. (2015)

In 2013, provided testimony in Federal Court (Southern District of NY) for the plaintiffs in Chevron vs. Donziger, and was found to be a credible witness.

Multiple lectures in the Middle East, (Saudi Arabia, Oman, Qatar, and the UAE) on a variety of technical and engineering subjects, principally involving oil field equipment.

Consulting with Attorneys and Expert Witness Testimony, and Deposition regarding the presence of asbestos in wastewater treatment plants, Honolulu, Hawaii., 2015

Summary Report and Statement for a client in Florida regarding the contamination of his land from un-permitted clearing and illegal development, in Orange County, FL. 2017

Safety review and recommendations for Beena Vision Systems, Norcross, GA, a company which makes equipment for railroad cars.

Presentation to the University of Illinois School in a seminar, on Risk Assessment and Management in the environmental field (2017 April)

Currently (2017-2018) working on getting a parcel of land reclassified and delisted from the Georgia Hazardous Site Index, in Peach County, GA. Conducting investigation and sampling and preparing reports for Georgia Environmental Protection Division.

Currently: (2017-2018) Certifying design engineer for anaerobic digester to methane conversion plant for a dairy farm in Iowa with Trane, Inc. Project to be completed by summer 2018.

Training assignment in Hazar, Turkmenistan, for Dragon Oil Company, on the subject of environmental responsibility and sustainability. (January 2018)