

APPLICATION OF	§	BEFORE THE STATE OFFICE
BFI WASTE SYSTEMS OF NORTH	§	
AMERICA, LLC.	§	
FOR A MUNICIPAL SOLID WASTE	§	OF
PERMIT AMENDMENT;	§	
PERMIT NO. 1447A	§	ADMINISTRATIVE HEARINGS

EXECUTIVE DIRECTOR'S EXPERT WITNESS DESIGNATIONS

TO THE HONORABLE ADMINISTRATIVE LAW JUDGES AND ALL PARTIES ON ATTACHED SERVICE LIST:

COMES NOW, the Executive Director of the Texas Commission on Environmental Quality (TCEQ), and files this his designations of Expert Witnesses.

The Executive Director reasonably anticipates the following two experts will testify as to factual matters and personal observations related to the facility, about the permit amendment application, about TCEQ's process for reviewing applications, and about permitting various landfills throughout Texas as appropriate.

- 1. Arten Avakian, P.G., is a Geoscientist III. Mr. Avakian serves as the project manager and project geologist for the technical review of the amendment application filed by BFI Sunset Farms. Mr. Avakian is expected to testify on his technical evaluation of the permit application, his preparation of the draft permit and technical summary, and his review on materials in BFI's application which related to geology, hydrogeology, and items other than those reviewed by the project engineer.**
- 2. Matthew Udenenwu is an Engineer-in-Training. He serves as the project engineer for the technical review of the amendent application filed by BFI Sunset Farms. Mr. Udenenwu is expected to testify on his review of the engineering aspects of BFI's application related to geotechnical evaluations, surface water drainage, liner design and construction, and leachate and contaminated water management.**

These individuals are members of the Executive Director's staff and serve in the:  
Municipal Solid Waste Permits Section  
Waste Permits Division  
Office of Permitting, Remediation, and Registration  
Texas Commission on Environmental Quality  
12015 Park 35 Circle, Building F (MC-124)  
Austin, Texas 78753  
(512) 239-1000

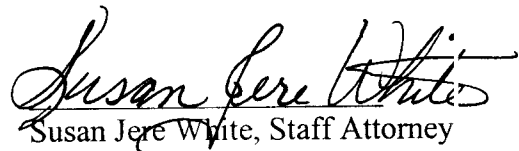


In addition, the Executive Director reserves the right to call either or both of the following experts if necessary:

1. Christopher Wiatrek is a waste investigator in the Austin Region Office (Region 11) in the Field Operations Division of the Office of Compliance and Enforcement. He is among the most knowledgeable investigators who responded to odor complaints at BFI's Sunset Farms Landfill. He may testify as to odor complaints, inspection results, and compliance with municipal solid waste regulations related to the BFI Sunset Farms site.
2. David Carmichael is a member of the Monitoring Operations Division staff who conducted an air monitoring project at the BFI and Waste Management landfills in Austin on January 4, 8, 9, and 23, 2002, and February 1, 2, and 3, 2002. He may testify about the monitoring conducted and the sample results of the special odor monitoring project. He currently has different job duties but works in the Monitoring Operations Division, Laboratory and Mobile Monitoring Section.

If not provided with this filing, the Executive Director will provide resumes for the individuals who will testify and for those who may testify at the time of pre-filing,

Respectfully submitted,


  
Susan Jere White, Staff Attorney  
State Bar No. 21350120

Steve Shepherd, Staff Attorney  
State Bar No. 18224200

Environmental Law Division  
TCEQ  
P.O. Box 13087, MC-173  
Austin, Texas 78711-3087  
(512)239-0454 and 239-0464  
(512)239-0606 (FAX)

#### CERTIFICATE OF SERVICE

I certify that on June 25, 2008, the foregoing was sent by electronic email to all designated representatives of parties on the attached mailing list.

  
Susan Jere White  
Environmental Law Division, MC 173

Attached: BFI Sunset Farms Mailing List



**RESUME of**  
**MATTHEW C. UDENENWU**

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**PROFESSIONAL REGISTRATION**

Engineer in Training, Texas  
OSHA 40-Hour General Site Worker Training, 2001

**EDUCATION**

Bachelor of Engineering in Civil Engineering, University of Nigeria, Nsukka, Nigeria 1986

Continuing Education and Short Courses:

“HEC-RAS Steady Flow River and Flood Plain Hydraulics,” The University of Texas at Austin College of Engineering, Center for Lifelong Engineering Education, 2001

“Construction QA/QC for Compacted Clay and GCL Liners and Geosynthetics Installation,” TRI Short Course, 2001

“Compacted Clay and Geosynthetic Clay Liners for Waste Containment,” The University of Texas College of Engineering,” 2001

“RCRA Subtitle C Refresher,” TCEQ, 2002

“Principles of Ground Water Flow, Transport, and Remediation,” National Ground Water Association, 2003

“Ground Water Geochemistry Fundamentals,” National Ground Water Association, 2003

“Waste Containment Drainage Systems and Drainage Geocomposite Design,” Advanced Geotech Systems, 2003

“Clean Air Compliance,” The Texas A&M University System Engineering Extension Service, 2003

“Basic Surface Water Operations,” The Texas A&M University System Engineering Extension Service, 2005

“Fate and Transport of Contaminants,” Bureau of Economic Geology, 2005

“Applied Groundwater Statistics,” NIC USA Inc., 2006

“Evapotranspiration Covers for Landfills, Waste Repositories, and Mines Waste Design, Modeling, Construction, and Monitoring,” Desert Research Institute/University of Wisconsin, 2006

“Designing with Geosynthetic Clay Liners,” CETCO Lining Technologies, 2007

## **PROFESSIONAL EXPERIENCE**

**January 2001 to Present: TCEQ, Austin, Texas**

Permit Engineer and Project Manager for several municipal solid waste management projects in Texas including landfills, transfer stations, composting facilities, landfill gas-to-energy facilities, medical waste processing facilities, and liquid waste processing facilities. Responsibilities include evaluation and technical review of facility designs (engineering aspects related to geotechnical evaluations, surface water drainage, liner and final cover design and construction, and leachate and contaminated water-management) and processing of permit application materials for compliance with state and federal regulations; preparation and implementation of technical guidance for use by Section staff and the regulated community; performance of team leader duties as requested, including review of the work-product of other team members for consistency with technical and regulatory requirements; coordinating and meeting with applicants, consultants, local officials and the public regarding technical and operational issues relating to applications and regulations; interpreting and applying state and federal statutes and regulations to municipal solid waste management activities; responding to inquiries on advanced level environment issues; and representing the Agency in public meetings.

**May 2000 to January 2001: Solectron-Texas, Austin, Texas**

WIP Quality Assurance/Quality Control Coordinator -- Performed various manufacturing operations for the production of electronic printed circuit boards including activities involving line operations, quality assurance, troubleshooting and reworks. Performed visual inspection and automated electro-mechanical tests to resolve quality problems. Produced reports for operational improvements and elimination of waste. Actively participated in departmental and team activities including meetings and trainings. Communicated and interacted with team members and supervisory staff on production and quality control issues. Coordinated work flow between the troubleshooting and repair department and the main production line section ensuring that off-spec products are sent for troubleshooting and repair, and that repaired products got retested and returned to the production line. Obtained Solder II and Product Quality Assurance Inspector certifications.

**February 1995 to March 2000: Abbacon Engineering Company Ltd, Lagos, Nigeria**

Project Manager – Responsible for engineering design and project implementation. Performed structural analysis and design of residential, office, and warehouse buildings in steel and reinforced concrete. Reviewed component designs produced by other members of staff. Responsible for producing project design and construction specifications, cost estimates and contract tender documents. Liaised with consultants, state and local officials on project development, construction permits, and other project issues. Supervised project implementation to ensure compliance with material, design and construction specifications. Sourced for suppliers, and subcontractors to ensure that project time -lines were achieved. Coordinated the collection and maintenance of quality control and quality assurance data. Produced project reports.

**September 1990 to February 1995: Century Polyester Plc, Lagos, Nigeria**

Civil Engineering Officer - Worked as a member of the project design and implementation team that developed a 500 tons per day polyester staple fiber plant. Responsible for producing preliminary designs for estimating projects costs and for local and state permitting. Reviewed and evaluated final designs, plans and contract documents. Produced specifications and quality control plans for monitoring design, construction and installation activities. Coordinated the activities of contractors, subcontractors, and consultants to ensure an integrated project implementation process and maintain specified timelines. Participated in meetings with contractors, consultants, and local officials relating to project planning, design changes, and to address questions concerning the facility development. Responsible for maintaining project data in files and updated information to ensure accuracy of archived data. Reviewed invoices and approved completed works.

**March 1988 to September 1990: Construction and Design Company Ltd, Lagos, Nigeria**

Project Engineer - Performed structural analysis and designs of office buildings and manufacturing plant warehouses in steel and reinforced concrete. Coordinated design office procedures and processes. Reviewed and evaluated engineering designs done by other staff members to ensure compliance with local codes and regulations and client specifications. Conducted site investigation including taking samples for laboratory tests to assure suitability and adequacy. Conducted engineering survey of project sites to develop site contour maps and determine drainage design approaches. Supervised construction activities to assure compliance with design and construction specifications. Conducted project meetings with clients and contractors. Wrote reports and monitored project progress.

**Current Job Title: Engineering Specialist**





**ARTEN AVAKIAN**  
**RESUME - JUNE 2008**

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**PROFESSIONAL REGISTRATION**

Texas Licensed Professional Geoscientist (License No. 3047)

**EDUCATION**

B.A. Geology, *Magna Cum Laude*, California State University, Fresno, December 1980

M.A. Geology, The University of Texas at Austin, December 1989

Continuing Education:

Constraints for Combining Modeling and Management for Groundwater, Texas Water Development Board, October 2007

Phytostabilization of Mine Tailings in Arid and Semi-Arid Environments, Interstate Technology & Regulatory Council Internet Seminar, July 2007

Characterization, Design, Construction, and Monitoring of Bioreactor Landfills, ITRC Internet Seminar, April 2007

Evaluating, Optimizing, or Ending Post-Closure Care at Municipal Solid Waste Landfills, ITRC Internet Seminar, February 2007

Designing with Geosynthetic Clay Liners, CETCO Lining Technologies, February 2007

Alternative Covers for Landfills, Waste Repositories and Mine Wastes, University of Wisconsin / Desert Research Institute / USEPA, September 2006

Unsaturated-Zone Forensics Provides Insight to Soil and Water Resources, U.S. Geological Survey Internet Seminar, July 2006

Applied Ground Water Statistics, NIC USA Inc., May 2005

An Overview of Direct-Push Well Technology for Long-Term Groundwater Monitoring, ITRC Internet Seminar, April 2005

Performance Based Measurement Systems, Texas Natural Resource Conservation Commission (TNRCC), January 2001

Natural Attenuation of Chlorinated Solvents, TNRCC / University of Texas / ITRC / Remediation Technologies Development Forum, September 1997

Vadose Zone Hydrology, TNRCC, August 1997

OSHA 29 CFR 1910.120(e)(3)(i) 40 Hour HAZWOPER General Site Worker Training, Environmental Options, Inc., May 1997

Method Detection Limits: Measurement Theory, TNRCC, December 1996

Fundamental Approaches to Groundwater Investigations, TNRCC, June 1995

Practical Application of Ground Water Geochemistry, National Ground Water Association (NGWA), May 1995

Fundamentals of Ground Water Geochemistry, NGWA, May 1995

Introduction to the Municipal Solid Waste Program, TNRCC, March 1995

Introduction to Resource Conservation and Recovery Act (RCRA), TNRCC, November-December 1994

## **PROFESSIONAL EXPERIENCE**

### **April 1996 – present: TNRCC / TCEQ, Austin, Texas**

Geologist / Project Manager, Municipal Solid Waste Permits Section

- Reviewed permit applications, amendments, modifications, and other authorization requests
- Reviewed geology reports, groundwater characterization reports, and groundwater monitoring system designs and installations
- Reviewed groundwater sampling and analysis plans and laboratory quality assurance plans
- Reviewed groundwater monitoring reports, data quality, statistical evaluations, and corrective action plans and reports
- Reviewed landfill gas monitoring and remediation plans
- Reviewed alternative final cover designs, alternative liner designs, and software used to model performance of designs
- Prepared municipal solid waste information for Joint Groundwater Monitoring and Contamination Report
- Led and participated in workgroups to prepare procedures and guidelines for rule implementation
- Led and contributed to development and maintenance of web pages for TCEQ Internet site.

### **May 1994 – April 1996: TNRCC, Austin, Texas**

Environmental Quality Specialist, Texas Agriculture and Rural Assistance Division.

- Processed applications for applications for new permits, amendments, and other actions regarding irrigation water rights
- Prepared permits, orders, and other documents

### **August 1981 – April 1994: The University of Texas at Austin**

Teaching Assistant, Department of Geological Sciences (mineralogy, structural geology, field geology), August 1981 – July 1984

Research Scientist Associate, Bureau of Economic Geology, June 1990 – April 1994

Research Assistant, Bureau of Economic Geology, January 1990 – May 1990

Graduate Research Assistant, Bureau of Economic Geology, June 1986 – March 1988, January 1989 – December 1989

### **Summer Positions**

Mineral Exploration Aid, ACA International, Summer 1982

Associate Geologist, Natural Gas Corporation of California, Summer 1981

Geologist, U.S. Geological Survey, Branch of Astrogeology, Summer 1980

Physical Science Aid, U.S. Bureau of Mines, Summer 1979

Range Aid, U.S. Bureau of Land Management, Summer 1978

### **PROFESSIONAL AFFILIATIONS**

American Geophysical Union

### **PRESENTATIONS AND PUBLICATIONS**

Evapotranspiration (ET) Cover Systems for MSW Landfills - Design and Modeling Recommendations:  
Presentation at TCEQ Environmental Trade Fair, May 2007

Groundwater Monitoring Statistical Evaluation For MSW Sites, Presentation at TCEQ Environmental Trade  
Fair, May 2000

Paine, J. G., **Avakian, A. J.**, Gustavson, T. C., Hovorka, S. D. , and Richter, B. C., 1994, Geophysical and  
Geochemical Delineation of Sites of Saline-Water Inflow to the Canadian River, New Mexico and  
Texas: The University of Texas at Austin, Bureau of Economic Geology.

