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Edwards Engineering, P.A. Page 21

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# SCS FIELD SERVICES

June 24, 2008 File No. 90000001.07

Purchasing Department City of Jonesboro City Hall 515 West Washington Jonesboro, Arkansas 72403

Subject:

Jonesboro Landfill – Jonesboro, Arkansas

2008:20 Gas Collection RFQ Statement of Qualifications

To Whom It May Concern:

In response to a request for qualifications (RFQ) issued by the City of Jonesboro on June 4, 2008, SCS Field Services (SCS-FS) is pleased to provide the enclosed statement of qualifications relating to gas collection and control system (GCCS) operations, monitoring, and maintenance (OM&M) services. As specified in the RFQ, nine copies of this submittal are being provided.

SCS-FS appreciates the opportunity to provide this response to the City's RFQ. If you have any questions or comments, please contact Ron Wilks at telephone number (817) 571-2288 or Rusty Fusilier at telephone number 512-440-1888 ext. 108.

Sincerely,

Rusty Fusilier, P.E.

Project Manager

SCS FIELD SERVICES

Nustry Fusilier

Ron Wilks Vice President

SCS FIELD SERVICES

Lon lite

RF/RW:rf Enclosure

cc w/enclosure:

Julie Becker, SCS-FS

# SCS FIELD SERVICES















2008:20 Gas Collection RFQ

Comprehensive Landfill Gas
Operations, Monitoring, &
Maintenance Services

Jonesboro Landfill

Presented to:

City of Jonesboro

Purchasing Department
City Hall
515 West Washington
P. O. Box 1845
Jonesboro, Arkansas 72403

Presented by:

SCS FIELD SERVICES

Midwest Region 3809 South 2nd Street

Suite C400 Austin, Texas (512) 440-1888

June 24, 2008 File No. 9000001.07

Offices Nationwide www.scsengineers.com

# 2008:20 Gas Collection RFQ

# Comprehensive Landfill Gas Operations, Monitoring, & Maintenance Services

Jonesboro Landfill

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City of Jonesboro
Purchasing Department
City Hall
515 West Washington
P. O. Box 1845
Jonesboro, Arkansas 72403

Presented by:

SCS FIELD SERVICES
Midwest Region
3809 South 2<sup>nd</sup> Street
Suite C400
Austin, Texas
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# SECTION 1 INTRODUCTION

Stearns, Conrad, and Schmidt (SCS) is a firm specializing in design, construction, and operation of landfill gas (LFG) utilization, migration, odor and emission control, landfill closure, landfill post-closure care, and remediation systems. In addition to contracting with clients to construct LFG systems and landfill closures, and to provide operation and maintenance, the company can bring together all the talents necessary for turnkey construction and operation of these systems. SCS is employee-owned, and ownership does make a difference.

SCS Field Services (SCS-FS) was formed in 1985 to meet the need for qualified constructors and operators of LFG systems. The expanding environmental requirements by local, state, and federal regulatory agencies were requiring installation of environmental control systems for landfills. SCS-FS has expanded to a staff of over 100 and provides services on a national basis from regional centers located throughout the U.S.

SCS has completed installation of gas systems and major repair/modification of more than 165 LFG control and utilization facilities. SCS-FS currently provides long-term operation and maintenance services on approximately 100 active LFG facilities and monitors and maintains approximately 50 passive LFG migration control systems.

The employees of SCS-FS have 40-hour health and safety training, are experienced in LFG monitoring and maintenance activities, and come from all areas of the landfill industry. SCS Engineers can support SCS-FS in the design and trouble-shooting of LFG collection and migration control systems and landfill closure projects.

SCS has been assisting landfill owners and operators with their LFG and solid waste challenges since 1970. Together, our company resume includes more than 2000 LFG projects and 500 landfill projects over the more than 35 years in which we have been providing LFG services. SCS has grown to a staff over 400 employees in offices across the United States. Our experience has established SCS as a preeminent firm in the area of solid waste consulting and LFG system construction and operation. Our practice is organized into two broad divisions:

Solid Waste	Environmental Services
LFG Control and Utilization	Hazardous Waste and Superfund
Air Emissions Control and Permitting	Engineering, Construction, and Operation
Landfill Siting, Permitting, Design and	Soil and Groundwater Remediation
Engineering	Environmental Due Diligence
Groundwater Monitoring	Storage Tank Engineering
Recycling and Transfer Facilities	Regulatory Compliance Audits
Solid Waste Management Planning	Surface Water and Groundwater
Operation, Maintenance, and Monitoring	Discharge Permits
Permit Application and Compliance	Site Remediation and Redevelopment
Greenhouse Gas Emissions Credits	Consent Order and Permit Compliance

# SECTION 2 REPRESENTATIVE CONSTRUCTION AND OPERATIONS PROJECTS

Examples of past and present representative LFG system construction and operations projects and the services provided for those projects are shown in the table below.

Project	Design	Permitting	Construction	Start-up Operations	System Operations
LFG Utilization Systems Salt River Landfills (three) Pima Maricopa Indian Community, Arizona	1	1	1	1	7
LFG Utilization System Fort Smith Landfill Fort Smith, Arkansas	√	٧	1	1	<b>V</b>
LFG Control and Utilization Systems I-95 Landfill Fairfax County, Virginia	√	<b>V</b>	<b>V</b>	1	<b>√</b>
LFG Control Systems Monmouth Co., Ph. I, II & III Tinton Falls, New Jersey	√	٧	<b>V</b>	1	7
LFG Control System Syufy Six Drive-In Carson, California	√	<b>V</b>		٧	7
LFG Utilization System Miramar Landfill San Diego County, California	<b>V</b>	٧	1	٧	<b>V</b>
LFG Control System South Chollas Landfill San Diego, California	<b>√</b>	<b>V</b>	<b>V</b>	<b>V</b>	7
LFG Control System Sunnyvale Landfill Sunnyvale, California	√ 	٧		<b>V</b>	٧
LFG Control & Utilization Systems Hartford Landfill Hartford, Connecticut	٧	٧	٧	٧	٧

Project	Design	Permitting	Construction	Start-up Operations	System Operations
LFG Utilization System Perdido Landfill Escambia, Florida	√	<b>V</b>	1	<b>V</b>	<b>√</b>
LFG Control and Utilization System Austin Community Landfill Austin, Texas	149.40		√	√	<b>V</b>
LFG Utilization System Kapaa Landfill Oahu, Hawaii	√		٧	1	<b>V</b>
LFG Utilization System Woolworth Road Landfill Shreveport, Louisiana	√	<b>√</b>	٧	٧	<b>√</b>
LFG Utilization System Gude Landfill Rockville, Maryland	<b>V</b>	<b>V</b>		√	<b>√</b>
LFG Control System Rikers Island Correctional Facility Rikers Island, New York	٧	<b>V</b>		√	<b>V</b>
LFG Control System Columbus Correctional Center Columbus, Ohio	٧	٧		<b>V</b>	<b>V</b>
LFG Control System Ford Truck Center Landfill Carson, California	٧	1		4	<b>V</b>
LFG Control System Pine Grove Landfill Pine Grove, Pennsylvania	4	٧	٧	٧	٧
LFG Control System State Street Landfill Omaha, Nebraska			<b>V</b>	1	<b>V</b>
LFG Control System, Baytown Landfill Houston, Texas	1		4		√

Project	Design	Permitting	Construction	Start-up Operations	System Operations
LFG, Leachate, Condensate Repair Construction Central Landfill Sonoma County, California		٧	√		٧
LFG Control System Lena Road Landfill Bradenton, Florida			<b>√</b>	1	
LFG Control System Galveston County Landfill Galveston, Texas			<b>V</b>		1
LFG Control and Utilization Elda Landfill Cincinnati, Ohio	٧	٧	٧		
LFG Utilization System Bordeaux Landfill Nashville, Tennessee	<b>V</b>	7	1	1	~
LFG Control System Skunk Creek Landfill Phoenix, Arizona			٧		
LFG Odor Control and Utilization Systems Empire Landfill Taylor, Pennsylvania	7	7	٧	٧	٧
LFG Control Systems Newby Island, Ox Mountain, Keller Canyon Landfills San Francisco Bay Area		٧	٧	٧	1

Examples of a few active projects where the Midwest Region of SCS-FS currently provides LFG operations, monitoring, and maintenance (OM&M) services are given below:

# Loop 12/Deepwood Landfill (Dallas, Texas)

This is a closed municipal solid waste landfill with 12 LFG extraction wells, 40 perimeter migration control wells, condensate management systems, a blower, and a candlestick flare. Routine OM&M services are provided weekly. In addition, quarterly monitoring (formerly biweekly) is provided for 39 LFG monitoring probes and operations indicators.

# Seabreeze Landfill (Angleton, Texas)

This is an active municipal solid waste landfill with 89 LFG extraction wells, condensate management systems, two blowers, and a candlestick flare. Routine OM&M services are provided semimonthly.

#### Victoria Landfill (Victoria, Texas)

This is an active municipal solid waste landfill with 62 LFG extraction wells, condensate management systems, two blowers, and a candlestick flare. Routine OM&M services are provided semimonthly.

#### FM-812 Landfill (Austin, Texas)

This is a recently closed municipal solid waste landfill with 56 LFG extraction wells, condensate management systems, two blowers, and a candlestick flare. Routine OM&M services are provided monthly.

# Little Dixie Landfill (Ridgeland, Mississippi)

This is an active municipal solid waste landfill with 133 LFG extraction wells, condensate management systems, a blower, and an enclosed flare. Routine OM&M services are provided semimonthly. In addition, quarterly monitoring is provided for 14 LFG monitoring probes.

# SECTION 3 LFG SYSTEM DESCRIPTION

The Jonesboro Landfill (Site) is not currently subject to the operational requirements of Title 40 Code of Federal Regulations Part 60, Subpart WWW (aka New Source Performance Standards or NSPS). For sites subject to NSPS operational requirements, these rules provide specific standards for the operation and maintenance of the gas collection and control system (GCCS), particularly as they concern the operational performance of the wellfield. In addition, they also establish monitoring, recordkeeping, and reporting requirements.

Currently, the GCCS for the Site consists of 57 landfill gas (LFG) extraction wells, header collection piping, and condensate collection locations all served by a blower/flare station (BFS) system. Collected LFG is combusted in a utility flare. Collected condensate is pumped to an aboveground storage tank.

# SECTION 4 GCCS OM&M SERVICES PROVIDED

SCS-FS has extensive experience in providing GCCS OM&M services and in documenting and reporting monitoring results. SCS-FS will perform GCCS OM&M services for the Site including routine and non-routine wellfield and BFS monitoring and maintenance. Reporting of these services will also be provided. These activities are further described below.

#### OPERATIONAL GOALS FOR GCCS

While GCCS operation is not currently subject to NSPS rules, SCS-FS will operate the GCCS consistent with the NSPS standards as much as possible. In accordance with NSPS, the

following minimum LFG quality standards will apply to measurements taken at each LFG extraction wellhead:

- Static pressure measured at the wellhead must be less than 0.0 inches of water column (i.e., under vacuum).
- LFG temperature measured at the wellhead must be less than 131 degrees Fahrenheit (131° F).
- Oxygen concentration measured at the wellhead must be less than 5.0 percent by volume.

SCS-FS will also attempt to maintain the following LFG quality readings at each wellhead:

- Methane concentration greater than 50 percent
- Balance gas concentration less than 10 percent

The above LFG quality readings are overall benchmarks and are not considered absolute minimum or maximum allowable readings; however, they are consistent with NSPS requirements and provide a desirable goal for LFG quality at each wellhead.

# ROUTINE GCCS OM&M SERVICES

Routine GCCS-related services are those services for which the scopes can be reasonably defined at the present time.

# Wellfield Monitoring and Maintenance Services

SCS-FS will conduct monthly monitoring and adjustment of the wellfield to ensure proper balancing of the LFG extraction wells. Routine GCCS OM&M services will be provided at each LFG extraction well. During these services, SCS-FS will document the following operational data (as appropriate) for each well:

- Static pressure
- Differential pressure
- LFG flow
- LFG composition (i.e., methane (CH<sub>4</sub>), carbon dioxide (CO<sub>2</sub>), oxygen (O<sub>2</sub>), balance gas)
- LFG temperature
- Wellhead condition

During wellhead monitoring, the technician will inspect the wellhead and listen for leaks. Minor leaks identified during monitoring will be repaired at the time of discovery. Leaks that cannot be fully repaired (e.g., those requiring replacement parts not available at that time) will be brought to the attention of landfill management.

# Other Wellfield Monitoring and Maintenance Services

Additional wellfield monitoring and maintenance services are indicated below:

- Measurement of header pressure at each well as needed to troubleshoot problems such as decreased available vacuum to a LFG extraction well.
- Measurement of depths-to-liquid in wells where monitoring results indicate elevated liquid levels.
- Observation and monitoring of condensate removal system components to verify their integrity and proper operation.
- Observation for general landfill cover integrity and surface water drainage conditions that might impact LFG collection system operations.
- Replacement of flex hoses and monitoring ports on wells (labor only).

As necessary, issues related to these items will be brought to the attention of landfill management prior to SCS-FS personnel leaving the landfill and documented in the monthly report (see below).

# BFS Monitoring and Maintenance Services

The SCS-FS technician will perform routine monthly BFS monitoring including the following services:

- Collect LFG measurements at the BFS including:
  - Instantaneous flow readings (from meter or by pitot tube measurements)
  - Total flow readings (if equipped with a totalizer or chart recorder)
  - Overall system vacuum
  - Blower inlet and outlet pressures and temperatures
  - Flame arrestor inlet and outlet pressures (if equipped with monitoring ports)
  - Composite LFG composition (i.e., CH<sub>4</sub>, CO<sub>2</sub>, O<sub>2</sub>, and balance gas concentrations)
  - Flare temperature
  - Blower run time hours (if equipped with a meter)
  - Blower bearing temperatures
  - Blower amperage reading (if equipped with a meter)
- Monitor and record operating status as applicable of various BFS components including:
  - Blower
  - Motor
  - Flare
  - Flare control system

- Condensate knockout(s)
- Air compressor

SCS-FS personnel will also perform as necessary manufacturer's specified routine preventative maintenance of BFS components including:

- Blower
- Motor
- Flare control system (including flare fire eye)
- Condensate knockout(s)
- Air compressor
- Flame arrestor (clean annually)

This work may include:

- Tightening of flex hoses, valves, etc.
- Replacement of broken cock valves
- Cleaning of the blower/flare station
- Checking/greasing motor/blower bearings
- Cleaning of the fire eye
- Changing oil, oil and air filters, and oil/water separator on air compressor

In addition to the above services, SCS-FS will also assist landfill management with condensate disposal.

#### Spare Parts Inventory

As part of its services, SCS-FS is prepared to maintain an inventory of spare parts on site for the GCCS (in accordance with the manufacturer's operations manuals for the blower, motor, flare, and compressor). If any of the spare parts in the inventory are used for repairs, SCS-FS will notify landfill management and assist as needed with purchase of replacement spare parts.

#### GCCS OM&M-Related Recordkeeping and Reporting

For monthly GCCS OM&M services, SCS-FS will generate a letter report. This report will include the following information:

- Monitoring data collected at individual LFG extraction wells.
- Status of each well's conformance with operating requirements for pressure, temperature, and oxygen concentration.
- Summary of BFS operations.
- Cover integrity issues (if any).

- Condensate sump operation and condensate/leachate tank capacity status.
- Summary of routine maintenance services performed.
- Summary of non-routine maintenance services performed.
- Recommendations of additional non-routine maintenance or repairs needed (if any).
- Recommendations of enhancements to improve collection system operations and performance (if any).

In advance of submitting the above-described report, SCS-FS will compile collected data on the SCS Data Services server and provide access for designated City personnel to this data. By placing data on the Data Services server, access will be available to SCS-FS personnel and City personnel at all times via the Internet.

# NON-ROUTINE GCCS OM&M SERVICES

SCS-FS is prepared to make corrective repairs or maintenance work that cannot be handled in the course of routine visits. Such services may include but are not limited to the following:

- Repair of broken valves.
- Replacement of damage wellheads.
- Raising of wells to address waste fill activities.
- Repair of damaged header lines.
- Manual measurement of liquid levels in LFG extraction wells.
- Troubleshooting of well and/or header problems.
- Troubleshooting of pump problems (in wells or sumps).
- Troubleshooting of leachate panel problems.

With its construction capabilities, SCS-FS has the capability to address any repair or maintenance problems related to the GCCS.

# SECTION 5 LFG PROBE AND STRUCTURE FIELD MONITORING ACTIVITIES

SCS-FS personnel are experienced in LFG probe monitoring requirements. SCS-FS will conduct routine quarterly monitoring of LFG probes and structures in accordance with the site-specific Landfill Gas Management Plan (if applicable) and report results to landfill management. Scheduling of probe monitoring events will be coordinated with site personnel. At a minimum, the following information will be documented for LFG probes for each event:

- Monitoring date and time
- Weather conditions

- Probe condition
- Probe pressure
- Probe methane concentration

SCS-FS will also monitor on-site occupied structures for the presence of methane and verify the operation of any continuous gas monitors in those structures. Should methane be detected in any probes or structures or should any continuous gas monitors be determined to be inoperable, landfill management will be promptly notified at the time of the monitoring event.

# SECTION 6 FIELD SERVICES SUPPORT

# QUALITY ASSURANCE PROGRAM

On a corporate level, SCS-FS is committed to its Quality Assurance Program (QAP) to ensure the quality of project deliverables. The QAP sets forth procedures for review and approval of the work elements at all levels, company-wide.

- Reports
- Design/build services
- Construction
- Operations
- Maintenance
- Monitoring
- Equipment maintenance and calibration
- Proposals/bids
- Contracts
- Health and safety plans

- Construction project estimating
- Purchasing
- Conference papers/articles
- Project job and contract files
- Internal documents
- Correspondence
- Diary/daily logs
- As-built drawings
- Photo records

# EQUIPMENT AND TRAINING

SCS-FS personnel are provided with equipment and training necessary to complete GCCS OM&M tasks at landfills:

- Field activities are performed by uniformed personnel who are provided with well
  equipped vehicles, mobile phones, and other equipment to facilitate monitoring and
  maintenance activities.
- A Health and Safety Program is provided in accordance with OSHA 29 CFR 1910 and Cal OSHA 1973 Division 5 Section 6300 of the Labor Code, including an Injury and Illness Prevention Program (IIPP), in accordance with SB 198 (California).
- Site-Specific Health and Safety Plans are developed for each project, in accordance with OSHA 29 CFR 1910.120.

- All permanent field personnel are 40-hour trained, have 8-hour refresher training, and participate in OSHA 29 CFR 1910.120 medical monitoring.
- Field personnel are provided Personnel Protective Equipment (PPE), in accordance with OSHA 29 CFR 1910.120.
- Personnel are trained and certified in Competent Person Awareness for Trench and Excavation Safety, in accordance with OSHA Excavation Standards CFR 1926, Sub-part P and Title 8, Chapter 4 (Cal OSHA); SCS maintains an Annual Trench/ Excavation Permit, pursuant to Labor Code Sections 6500 and 6502 (Cal OSHA).
- Project managers and superintendents participate in 8-hour management and supervisor training in accordance with OSHA 29 CFR 1910.120.

#### COMPUTER FACILITIES

SCS has a Wide Area Network (WAN) to communicate with other offices and with clients via the Internet. Correspondence, deliverables, and other project communications can be performed electronically, without the need for long distance telephone or facsimile charges. Clients with access to the Internet can readily exchange information with every SCS office. In addition, SCS has established a "home page" on the World Wide Web (<a href="http://www.scsengineers.com">http://www.scsengineers.com</a>).

SCS maintains a full complement of desktop computers in all offices and laptops for field work. Software programs available on these computers include Microsoft Office. SCS is experienced in the use of AutoCAD for the design and drafting of plans, schematic diagrams, details, and scheduling.

#### LIBRARY

The main SCS technical library in Long Beach contains over 30,000 volumes. The library has a computerized on-line data system, which allows staff to access library holdings by key words, title, author, corporate author, sponsor, or NTIS number. Use is made of the information retrieval systems available through NTIS, the U.S. Environmental Protection Agency (EPA) Solid Waste Information Retrieval System (SWIRS), a private subscription service, and EPA information retrieval systems. The library is also connected to a multitude of databases and other institutional libraries through the Internet and our WAN.

# ADDITIONAL SUPPORT

In addition to the above support services, SCS-FS can rely on support from experienced personnel nationwide. Office and field personnel are available to assist with all aspects of GCCS OM&M services and are available by phone and e-mail. For reference, a list of SCS offices is included in the appendix.

# SECTION 7 PROJECT MANAGEMENT AND ADMINISTRATION

For all of the above work, SCS-FS will provide an adequate level of management and administration to ensure that projects run smoothly and efficiently. Management/administrative services include scheduling of field activities and reporting, oversight of field activities, and client communications.

# SECTION 8 KEY PERSONNEL

SCS-FS brings together personnel with talents and experience in the landfill and LFG industries. These personnel will offer our clients the most effective solutions to their LFG problems and opportunities. For this project, information on a few such personnel is provided below.

Galen Petoyan earned his B.S. degree in Biological Sciences and a M.S. in Environmental Engineering from the University of Southern California. As president of SCS-FS, Mr. Petoyan is responsible for the daily operation of the company. He is also responsible for operation, maintenance, troubleshooting, modification and redesign for both migration control and recovery systems. Prior to joining SCS-FS, Mr. Petoyan was with SCS Engineers, where he gained 7 years of experience in LFG while conducting test programs, start-up and fine-tuning of recovery and migration control facilities; and performing monitoring, maintenance and operation of LFG systems. In total, he has 20 years of experience with LFG.

Ron Wilks earned his B.S. degree in business management from Texas A&M University. As vice president for the Midwest Region of SCS-FS, he is responsible for direction of the company's LFG OM&M and light construction projects throughout the Central United States. Mr. Wilks, in coordination with his managers, provides assistance relative to issues associated with GCCS operations. Mr. Wilks has over 30 years experience in automated system design as well as project management.

Rusty Fusilier earned his B.S. degree in Civil Engineering from Texas A&M University. As a project manager for SCS-FS, Mr. Fusilier is responsible for managing landfill gas system operations and maintenance activities for the southern portion of the Midwest Region. He also oversees groundwater and leachate monitoring activities and other environmental services for active and closed landfills. In addition to his work at SCS-FS, Mr. Fusilier has also been employed with a regulatory agency and a private waste management company. Mr. Fusilier has over 25 years of experience in the municipal solid waste industry.

Detailed resumes for key personnel and other SCS-FS staff are available if needed.

# SECTION 9 CLOSING

SCS-FS is committed to providing outstanding GCCS OM&M services in full compliance with regulatory requirements and client specifications. We are prepared to further discuss our capabilities upon request.

# APPENDIX SCS OFFICE LOCATIONS

#### **ARIZONA**

#### **Phoenix**

4222 East Thomas Road Suite 310 Phoenix, AZ 85018-7609 Tel: 602-840-2596 1-800-223-8784

1-800-223-8784 Fax: 602-224-0572

#### Tucson

2410 W. Ruthrauff Rd. Suite 110

Tucson , AZ 85705 Tel: 520-696-1617 Fax: 520-696-1618

#### **CALIFORNIA**

#### **Bakersfield**

3703 Columbus Avenue Bakersfield, CA 93306 Tel: 661-873-7277 Fax: 661-872-3447

#### **Brentwood**

No mail received at this address. Overnight packages rec'd only, but call office first to make sure someone will be in office to take delivery. 50 Sand Creek Road Suite 306

Brentwood, CA 94513 Tel: 925-240-5152 Fax: 925-240-5629

# Dublin

See Pleasanton

#### Eureka

434 7th Street Suite B Eureka, CA 95501-1803

Eureka, CA 95501-180 Tel: 707-476-1590 Fax: 707-476-1589

#### Long Beach SCS Engineers & SCS Energy

3900 Kilroy Airport Way Suite 100 Long Beach, CA 90806 Tel: 562-426-9544 1-800-326-9544 Engineers Fax: 562-427-0805 SCS Energy Fax: 562-988-3183

#### **SCS Field Services**

3900 Kilroy Airport Way Suite 100 Long Beach, CA 90806 Tel: 562-426-9544 1-800-869-0235 Fax: 562-492-6210 Western Region Fax: 562-492-9292

#### Modesto

4707 Greenleaf Circle Suite F

Modesto, CA 95356 Tel: 209-545-8490 1-800-359-3881 Fax: 209-545-8391

#### Petaluma

500 Mecham Rd. Petaluma, CA 94525 Tel: 707-795-7100 Fax: 707-795-7100

#### Pleasanton

6601 Koll Center Pkwy Suite 140 Pleasanton, CA 94566 Tel: 925-426-0080 Fax: 925-426-0707

#### Sacramento

3050 Fite Circle Suite 106 Sacramento, CA 95827 Tel: 916-361-1297 Fax: 916-361-1299

#### Salinas

350 Crazy Horse Road Salinas, CA 93906 Tel: 831-663-1095 Fax: 831-663-1489

#### San Diego

8799 Balboa Ave. Suite 290 San Diego, CA 92123 Tel: 858-571-5500 Fax: 858-571-5357

SCS Field Services 16776 Bernardo Center Dr. Suite 203 San Diego, CA 92128

Tel: 858-487-2989 Fax: 858-487-2948

#### Santa Rosa

3645 Westwind Blvd Santa Rosa, CA 95403 Tel: 707-546-9461 Fax: 707-544-5769

#### **FLORIDA**

#### Daytona Beach

501 N. Grandview Ave. Suite 400 Daytona Beach, FL 32118

Tel: 386-238-7770 Fax: 386-238-7046

#### Pensacola

3298 Summit Blvd. Suite 31 - A Pensacola, FL 32503 Tel: 850-432-6211 Fax: 850-432-6220

#### Tampa

3012 U.S. Hwy. 301 No. Suite 700 Tampa, FL 33619 Engineers: Tel: 813-621-0080

Fax: 813-623-6757 <u>Field Services:</u> Tel: 813-630-2109 Fax: 813-630-1790

1-800-569-9702

#### **GEORGIA**

#### **Atlanta**

5041 Dallas Highway Suite 608 Powder Springs, GA 30127

Tel: 770-499-9339 Fax: 770-499-9755

#### **IOWA**

# **Des Moines**

827 17th Ave. SW Suite B

Altoona, IA 50009 Tel: 515-967-3195 Fax: 515-967-3199

#### KANSAS

#### **Kansas City**

10975 El Monte Suite 100 Overland Park, KS 66211 Tel: 913-451-7510 1-800-366-9232 Fax: 913-451-7513

#### **MARYLAND**

#### Columbia

10630 Little Patuxent Pkwy. Bldg. 1000, Suite 127 Columbia, MD 21044 Tel: 410-995-4040 Fax: 410-995-4045

#### **MISSOURI**

See Kansas

# **NEW JERSEY**

#### Medford

560 Stokes Rd, Suite 10B Medford, NJ 08055 Tel: 609-654-4000 Fax: 609-654-4438

#### **NEW YORK**

# Valley Cottage

SCS Engineers, PC 140 Route 303 Valley Cottage, NY 10989 Tel: 845-353-5727 1-800-597-2769 Fax: 845-353-5731

#### **NORTH CAROLINA**

#### Charlotte

SCS Engineers, PC 2520 Whitehall Park Dr. Suite 450 Charlotte, NC 28273 Engineers

Tel: 704-504-3107 Fax: 704-504-3174 Field Services Tel: 704-504-3170 Fax: 704-504-3174

#### Raleigh

SCS Engineers, PC 322 Chapanoke Road Suite 101 Raleigh, NC 27603-34

Raleigh, NC 27603-3415 Tel: 919-662-3015 Fax: 919-662-3017

#### OHIO

#### Cincinnati

2060 Reading Rd. Suite 200 Cincinnati, OH 45202 Tel: 513-421-5353 1-866-303-5353 Fax: 513-421-2847

#### **OREGON**

#### Portland

4800 SW Meadows Road Suite 300 Lake Oswego , OR 97035

Lake Oswego , OR 9703 Tel: 503- 534-3620 Fax: 503-296-2510

#### **PENNSYLVANIA**

#### Harrisburg

4309 Linglestown Road #115 Harrisburg, PA 17112

Tel: 717-671-5102 1-888-703-0300 Fax: 717-671-5103

#### Gettysburg

P.O. Box 422 Blue Ridge Summit, PA 17214

Tel: 717-794-5755 Fax: 717-994-5758

#### **RHODE ISLAND**

#### Greenville

401 Putnam Pike, #J P.O. Box 112 Harmony, RI 02829 Tel: 401-349-4464 Fax 401-349-4020

#### **SOUTH CAROLINA**

#### Charleston

2655 Evatt Lane Suite 109 North Charleston, SC 29405 Tel: 843 746-8525

Fax: 843-746-8865

#### **TEXAS**

#### Austin

3809 So. Second St. Suite C-400 Austin, TX 78704 Tel: 512-440-1888 1-800-339-3034 Fax: 512-440-8393

#### Dallas/Ft. Worth

1901 Central Dr. Suite 550 Bedford, TX 76021 Tel: 817-571-2288

1-800-579-6671 Fax: 817-571-2188

#### Houston

7107 Glen Rosa Dr. Katy, TX 77494 Tel: 281-392-1166 Fax: 281-392-2750

#### **VIRGINIA**

#### Lorton

I-95 Trailer 9850 Furnace Road Lorton, VA 22079 Tel: 703-690-4977 Fax: 703-690-4832

#### Norfolk

6330 North Center Dr. Bldg. 13, Suite 100 Norfolk, VA 23502 Tel: 757-466-3361 Fax: 757-466-4344

#### Richmond

3229 Anderson Hwy. Suite 100 Powhatan, VA 23139 Tel: 804-598-9480 Fax: 804-598-9485

#### Reston

11260 Roger Bacon Dr. Suite 300 Reston, VA 20190 Engineers: Tel: 703-471-6150 1-800-767-4727 Fax: 703-471-6676 Field Services: Tel: 703-709-0004 1-800-669-7998

Fax: 703-709-0268

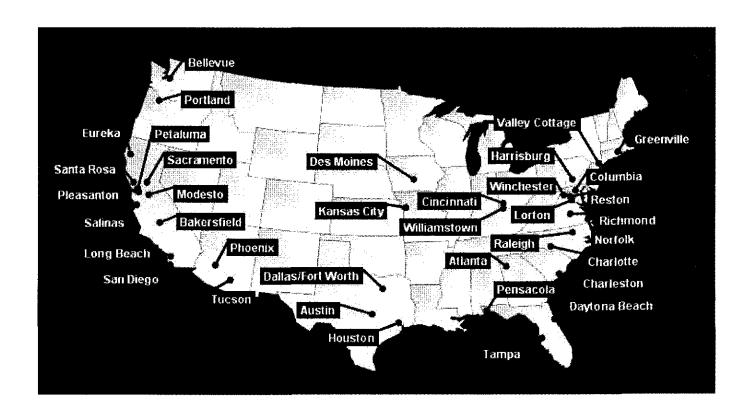
#### Winchester

600 Pegasus Court #102 Winchester, VA 22602 Tel: 540-450-2175 Fax: 540-662-8468

#### WASHINGTON

#### Bellevue

2405 140th Ave. NE Suite 107 Bellevue, WA 98005 Tel: 425-746-4600 1-800-727-6393 Fax: 425-746-6747





June 25, 2008

City of Jonesboro Attn: Mr. Steve Kent, Purchasing Agent 515 West Washington Avenue Jonesboro, Arkansas 72401

Subject:

**Statement of Qualifications** 

Professional Services for Strawfloor Road Landfill

City of Jonesboro, Arkansas 2008:20 Gas Collection RFQ

Mr. Kent:

Edwards Engineering, P.A. (EEPA) is pleased to submit the following Statement of Qualifications (SOQ) for professional services in response to your *Request for Qualifications (RFQ)* dated June 4, 2008 (RE: 2008:20 Gas Collection RFQ). The enclosed information outlines our firms' qualifications and experience in executing and performing the services identified in the *RFQ*.

It is understood that the City of Jonesboro (City) is seeking the services of a qualified firm to conduct routine inspections of the Landfill Gas Collection and Control System (LGCCS) at the closed Strawfloor Road Landfill. Specifically, a contractor is needed to insure proper operation and maintenance of the LGCCS to maximize collection efficiency of the system. This includes optimizing the LGCCS extraction wells to provide quality combustible gas to the flare system.

EEPA has team of professionals with a wide range of capabilities, knowledge, and experience that are well suited to provide the services outlined in the RFQ. EEPA is a full service civil and environmental engineering and consulting company with offices in Jonesboro and North Little Rock. The professionals at EEPA have more than 17 years of solid waste related experience that includes planning, solid waste facility design, regulatory compliance\monitoring, and budget/cost management involving solid waste operations for a wide range of both public and privately held solid waste management facilities in Arkansas and surrounding states

EEPA would appreciate the opportunity to work with the City in monitoring and maintaining compliance of the LGCCS for the Strawfloor Road Landfill. If you have any questions or if you need additional information, please do not hesitate to call us.

256 Southwest Drive Jonesboro, Arkansas 72401 (870) 268-0707 Fax: (870) 268-0464 Sincerely,

**EDWARDS ENGINEERING, P.A.** 

Lance Powell, P.E.

Division Manager/Project Engineer

Northeast Arkansas Division

Brian Edwards, P.E.

President/Senior Engineer

Enclosures: Statement of Qualifications—Nine Copies

# EXECUTIVE SUMMARY

Edwards Engineering, P.A. (EEPA) is pleased to present this *Statement of Qualifications (SOQ)* for Professional services to the City of Jonesboro. This SOQ is being submitted in response to the *Request for Qualifications (RFQ)* dated June 4, 2008 in relation to the closed City of Jonesboro (City), Strawfloor Road Landfill.

EEPA understands that the City is seeking the services of a qualified consulting firm to provide professional services on a continuing basis. Specifically, it is understood that the services will involve routine inspections of the Landfill Gas Collection and Control System (LGCCS) at the closed Strawfloor Road Landfill. The inspections will include the following, at a minimum:

- Monitoring of landfill gas quality in each of 57 gas extraction wells;
- Inspection of visible wellhead components for air leaks;
- Inspection of condensate removal system for proper operation;
- Inspection of flare skid and air compressor system;
- Tuning and balancing well field for optimum landfill gas collection and flare performance;
- Identification and performance of routine maintenance on the system components as needed;
- Logging of pertinent information and performing routine maintenance activities on system components;
- Routine inspection of water levels in gas extraction wells to maintain effective collection of landfill gas;
- Coordinate condensate removal and disposal work with City staff and City
   Water and Light; and
- Perform quarterly measurements of the site's perimeter monitoring probes to demonstrate effective control of landfill gas generation.



EEPA provides un-matched civil and environmental engineering expertise with support and service at the local level. Our clients expect and deserve responsiveness, diverse experience, and unlimited resources while providing solutions that are economically sensible. EEPA has the capacity, capabilities, and experience to provide this level of service for the City associated with this project.

With offices in Jonesboro and North Little Rock, EEPA is committed to nurturing existing relationships with our Arkansas clients, regulatory agencies, and governmental officials. EEPA understands the importance of establishing solid working partnerships



and relationships at the local level. The professionals at EEPA have formed lasting relationships in Arkansas and surrounding states based on years of trust and quality service.

EEPA was formed in the Spring of 2003 and holds professional engineering licenses in Arkansas, Texas, Louisiana,

Mississippi, Missouri, New Mexico, Tennessee, Illinois, and Oklahoma. The professionals at EEPA have assisted numerous clients (public and privately held entities) in Arkansas and surrounding states in the planning, siting, design, and permitting of various solid waste management and disposal facilities to comply with Local, State, and Federal environmental regulations. Having provided engineering and/or environmental consulting services for most of the permitted waste disposal facilities in Arkansas, the professionals at EEPA have several years of engineering and design experience. This knowledge and experience has proven invaluable to clients in determining innovative and economically sensible strategies and solutions involving a wide range of solid waste management issues.

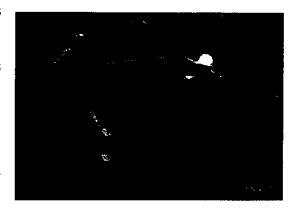


Existing limestone quarry and municipal solid waste landfill under development- Southwest, Missouri

# 1.0 QUALIFICATIONS AND EXPERIENCE

EEPA has a team of professionals with a wide range of capabilities, knowledge, and experience that are well suited to provide the services outlined in the RFQ. EEPA will provide the City with a level of service that is required to fully address the goals and objectives identified in the RFQ. The professionals at EEPA have more than 17 years

of solid waste related experience that includes planning, solid waste facility design, operations, regulatory compliance, and cost control. This experience includes coordination of the design, construction, and modification of gas collection and control systems, air permitting, air modeling, and compliance monitoring/reporting to comply with applicable environmental regulations and air permit conditions.



The following information provides a brief overview of the qualifications of EEPA for the referenced project. A list of recent solid waste related project works is included in **Appendix A** for reference. Additional company and project information can be provided upon request.

# QUALIFICATIONS SUMMARY- EDWARDS ENGINEERING, P.A.

Principal Contact: Lance Powell, P.E. - Division Manager/Project Engineer

Northeast Arkansas Division

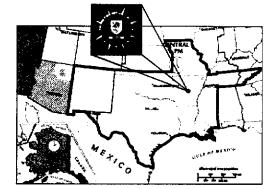
256 Southwest Drive

Jonesboro, Arkansas 72401

(870) 268-0707

Fax: (870) 268-0464 lpowell@e-engr.com

EEPA is a full service civil/environmental engineering and consulting company with offices in Jonesboro and North Little Rock, Arkansas. The professionals at EEPA have more than 17 years of experience



PROFESSIONAL ENGINEERING SERVICES AREA EDWARDS ENGINEERING, P.A. OCTOBER, 2007

providing civil and environmental engineering services to local government, industry, and various State governmental agencies in Arkansas and surrounding states. These services include:

- Solid Waste Facility Planning, Permitting, Design, Monitoring, and CQA;
- Development of Comprehensive Cost Models for Solid Waste Entities;
- Site Design and Planning (Residential, Commercial, and Industrial);
- Air Permitting, Facility Design, and Regulatory Compliance;
- Storm Water Permitting, Facility Design, and Regulatory Compliance;
- Retaining Structures (Including Segmental Block Walls);
- Environmental Site Assessments;
- Information Management;
- Hydrology Studies;
- Geotechnical Studies; and
- SWPPP and SPCCP Plans.

EEPA is focused on client service. Specifically, EEPA makes every effort to provide quality solutions for clients while adhering to given cost and time constraints. Many existing EEPA clients have formed long lasting relationships with the professionals at EEPA due to this level of commitment and trust.

EEPA provides engineering and construction quality assurance (CQA) services for a wide variety of solid waste landfill cell and closure construction projects in Arkansas and surrounding states. These projects have involved composite liner systems, leachate collection/removal systems, and final systems facilities cover for



owned/operated by local government and private waste companies. The professionals at EEPA have provided engineering and CQA services for more than 100 projects over the past 17+ years.

The professionals at EEPA have been responsible for the planning, design, permitting, and environmental compliance associated with many regulated facilities in Arkansas and surrounding states. These services have involved a wide range of media including air, explosive gas, water, wastewater, storm water, solid waste, and hazardous waste. This work requires a thorough working knowledge of a wide range of regulations at the local, state, and federal levels. While employed as Regional Engineer for a private waste company, Mr. Powell worked with Shaw Environmental, Inc. and the Solid Waste Division of the Arkansas Department of Environmental Quality (ADEQ) to develop a Remedial Action Plan to mitigate landfill gas migration from a municipal solid waste landfill. The Remedial Action Plan included developing a LGCCS Design Plan for the facility and expansion of the existing LGCCS. The LGCCS expansion involved the installation of 16 vertical extraction wells and associated lateral piping. Mr. Powell managed the construction of the LGCCS expansion on the owner's behalf and worked with the Landfill Manager after initial startup to make adjustments to the system for optimal performance. In addition to working with the Solid Waste Division of the ADEQ related to the expansion of the LGCCS to control landfill gas migration, Mr. Powell worked with the Air Division of the ADEQ to modify the existing *Air Permit* to consider the emissions from the expanded system.

EEPA is also active in several professional organizations which are instrumental in the development of new regulations and standards. These organizations include:

- American Society of Civil Engineers (# 274876)
- American Standards for Testing and Materials (# 000125747)
  - Geosynthetics Technical Committee
  - Geotechnical Technical Committee
- National Society of Professional Engineers (# 103686180)
- International Geosynthetics Society (# 522046)
- North American Geosynthetics Society (# 522046)
- Little Rock Chamber of Commerce (Since 2003)
- Arkansas Environmental Federation
- American Council of Engineering Companies, and
- Solid Waste Association of North America (SWANA)



# 2.0 PROJECT ORGANIZATION

EEPA's Jonesboro office is conveniently located on Southwest Drive in Jonesboro, Arkansas only minutes from the Strawfloor Road Landfill. EEPA feels that it is important to utilize a local base as the focal point for project administration and execution. This level of local service is necessary to efficiently and effectively monitor the LGCCS for the facility.

Mr. Powell will act as Project Director for this project and will be responsible for ensuring that the routine inspections of the LGCCS are performed. In this capacity, Mr. Powell will be responsible for organizing and managing the project to ensure that the City's overall needs, goals, and objectives are fully addressed as stated in the RFQ and further defined in the Engineering Services Contract.

Figure 2.1 illustrates a general organizational chart for the project. As shown, additional engineering resources are available as necessary to complete specific tasks and assignments as directed by the Project Director. Resumes for the key project members are provided in **APPENDIX B**.

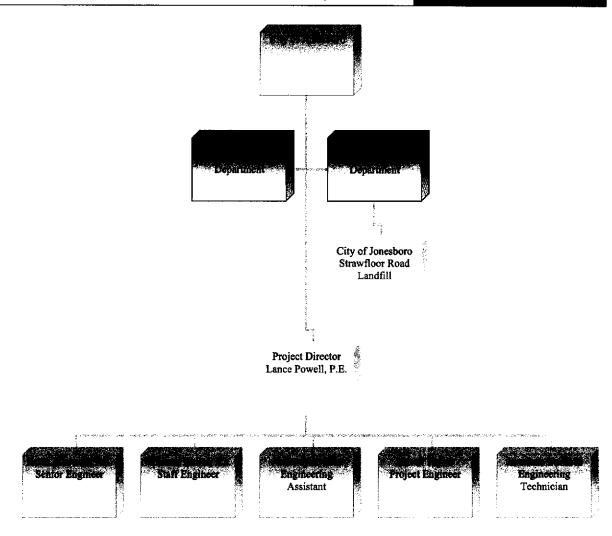


FIGURE 2.1 - PROJECT ORGANIZATIONAL STRUCTURE

# 3.0 REPRESENTATIVE PROJECTS

As stated previously, the professionals at EEPA have more than 17 years of solid waste related experience that includes planning, solid waste facility design, operations, regulatory compliance, and cost control. Summarized below is a list of solid waste clients currently serviced in Arkansas by EEPA and the type of services that have been provided by EEPA. These projects demonstrate the range and depth of the experience EEPA has involving solid waste projects. Included in **APPENDIX A** are examples of recent solid waste projects completed by EEPA.

- 1) Waste Corporation of Arkansas, Inc. (Since 2003)
  - Planning;
  - Permitting;
  - Facility Design;
  - Geotechnical Studies;
  - Seismic Impact Demonstrations;
  - Construction Quality Assurance;
  - Environmental Monitoring;
  - NSPS Compliance Including Air Permitting;
  - Hydrology Studies;
  - Surveying; and
  - Regulatory Compliance Consulting.
- 2) IESI- AR Landfill Corporation (Since 2003)
  - Planning;
  - Permitting;
  - Facility Design;
  - Construction Quality Assurance;
  - Environmental Monitoring;
  - NSPS Compliance Including Air Permitting;
  - Hydrology Studies;
  - Surveying; and
  - Regulatory Compliance Consulting.
- 3) Desha County, Arkansas (Since 2005)
  - Planning;
  - Permitting;
  - Facility Design:
  - Environmental Monitoring;
  - Ground Water Monitoring and Corrective Action;
  - Surveying; and



- Regulatory Compliance Consulting.
- 4) Dynegy (Since 2006)
  - Permit Compliance Consulting;
  - Solid Waste Permit Modification;
  - Wetlands Consulting;
  - NPDES Permit Application;
  - Groundwater Sampling and Reporting;
  - Surveying; and
  - Ground Water Monitoring System Upgrades.
- 5) Pulaski County Regional SWMD & L&W Environmental (Since 2003)
  - Planning and Landfill Siting;
  - Solid Waste Permitting;
  - Facility Design;
  - Geotechnical Investigations;
  - Surveying; and
  - Compliance Monitoring.
- 6) Waste Management
  - Expert Witness Testimony





- 1) Desha County Landfill
  - Transfer Station Permit Application
  - Transfer Station Annual Engineering Inspection Report
  - Class 4 Landfill Annual Engineering Inspection Report
  - Class 1 Landfill Closure Activities
  - Surveying Services
- 2) Cherokee Sanitary Landfill
  - Preparation of Construction Plans and Technical Specifications for Cell Construction
  - Construction Quality Assurance for Cell Construction
  - Class 1 Landfill Annual Engineering Inspection Report
  - Class 4 Landfill Annual Engineering Inspection Report
  - Transfer Stations Annual Engineering Inspection Reports
  - Surveying Services
- 3) Rolling Meadows Landfill Hazen, AR
  - Preparation of Construction Plans and Technical Specifications for Cell Construction
  - Construction Quality Assurance for Cell Construction
  - Class 1 Landfill Annual Engineering Inspection Report
  - Preparation of Minor Permit Modification Application
  - Preparation of Major Permit Modification
  - NSPS Tier 2 Study and Reporting
  - Surveying Services
- Union County RDF
  - Preparation of Construction Plans and Technical Specifications for Cell Construction
  - Construction Quality Assurance for Cell Construction
  - Class 1 Landfill Annual Engineering Inspection Report
  - Preparation of Minor Permit Modification Application
- 5) Plum Point Energy Station Class 3N Landfill
  - Preparation of Minor Permit Modification Application
  - Preparation of NPDES Permit Application
  - Installation of Groundwater Monitoring Wells
  - Quarterly Groundwater Sampling and Reporting
  - Surveying Services



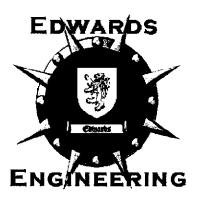


# PROFESSIONAL QUALIFICATIONS SUMMARY FOR:

BRIAN J. EDWARDS, P.E.
SENIOR ENGINEER and PRESIDENT
EDWARDS ENGINEERING, P.A.
9804 Maumelle Blvd.
North Little Rock, AR 72113
(501) 219-2808

FAX: (501) 219-2809 MOBILE: (501) 912-6966

EMAIL: bedwards@e-engr.com



# **EDUCATION**

- Graduate Studies in Engineering, University of Arkansas, 1994 to 1998
- > B.S. in Civil Engineering, University of Wyoming, 1991
- Undergraduate Studies in Physical Science, Casper College, 1986 to 1989

# PROFESSIONAL REGISTRATION, CERTIFICATIONS, AND LICENSES

- Registered Professional Engineer, Arkansas (# 89460)
- > Registered Professional Engineer, Louisiana (# 31411)
- Registered Professional Engineer, Mississippi (# 13466)
- Registered Professional Engineer, Missouri (# EN 028841)
- > Registered Professional Engineer, Tennessee (# 00110322)
- Registered Professional Engineer, Texas (# 85858)
- > Registered Professional Engineer, Oklahoma (# 20083)
- > Registered Professional Engineer, New Mexico (# 18183)
- National Council of Engineering Examiners Record Holder (# 20555)
- Nuclear Density Testing Equipment Operator (# 073543)
- Solid Waste Landfill Operator- Class 1B and 2B (# 00720)

# PROFESSIONAL MEMBERSHIPS

- American Society of Civil Engineers (# 274876)
- American Standards for Testing and Materials (# 000125747)
  - Geosynthetics Technical Committee
  - Geotechnical Technical Committee
  - Erosion Control Technical Committee
- ➤ International Geosynthetics Society (# 522046)
- National Society of Professional Engineers (# 103686180)
- ➤ North American Geosynthetics Society (# 522046)



- ➤ Little Rock Chamber of Commerce (2003 Edwards Engineering, P.A.)
- Arkansas Environmental Federation
- American Council of Engineering Companies (ACEC)
- Solid Waste Association of North America (SWANA)

# PROFESSIONAL TRAINING AND TECHNICAL CONFERENCES

- > "Mine Safety and Health 40-Hour Training (MSHA)", Thunder Basin Coal Company, Black Thunder Mine- Wright, Wyoming, 1991
- > "24-Hour OSHA Hazwopper Safety Course (1910.120)", Ensco, El Dorado, Arkansas, 1992
- "Hazardous Waste Recondition Training" to Comply with 40 CFR 258.20
- > "Introduction To Sanitary Landfills" As sponsored by the Arkansas Environmental Academy February, 1994
- > "Intermediate Sanitary Landfills"- As sponsored by the Arkansas Environmental Academy April, 1994
- > "Waste Tech 94" Sponsored by: National Solid Waste Management Association January 13-14, 1994; Charleston, South Carolina
- > "GEO Environment 2000" Sponsored by the American Society of Civil Engineers- February 24-26, 1995; New Orleans, Louisiana
- "Radiation Safety Course" Troxler Radiation Services Little Rock, Arkansas; June 1996
- "Illegal Dumps Control Officer Certification & Training Program" Sponsored by the Arkansas Environmental Academy – Little Rock, Arkansas- August 1997
- "Geosynthetic Liner Systems" Sponsored by CETCO and Polyflex- Little Rock, Arkansas – February 3, 1998
- "Fundamentals of Erosion Control" Sponsored by North American Green-Little Rock, Arkansas – February 24, 1998
- "Seismic Design of Solid Waste Landfills" Sponsored by the Arkansas Department of Environmental Quality- Little Rock, Arkansas- June 1998
- "Landfill Diversion of Scrap Tires Using Civil Engineering Applications"
  Sponsored by the Arkansas Department of Environmental Quality; Little Rock, Arkansas- April 1999
- "Design Considerations for Buildings in Moderate Seismic Zones" Sponsored by the University of Illinois at Urbana-Champaign - Memphis, Tennessee -April 27, 1999
- ➤ "49 CFR 172, Subpart H Safe Transportation of Hazardous Materials"; Little
  Rock, Arkansas- 2001
- "Construction Site Erosion Control & Sediment Control Workshop" U. of Arkansas College of Engineering, February 6-7, 2002;



- "Site Response Analysis to Consider Seismic Loading" Technical Paper and Presentation to the Southern States Region Transportation Department Conference – Little Rock, Arkansas – October 2001
- "Introduction to Professional Ethics for Engineers"; Chitester Management Systems, Inc.; Tampa, Florida; September 2002
- "The Engineer and Surveyor as an Expert Witness in Civil Litigation"; Professional Development Options; Rock Hill, South Carolina; 29732 – November 2005

# FIELDS OF SPECIALIZATION

- Solid and Hazardous Waste Landfill Design and Permitting
- > Solid Waste Transfer Station Design and Permitting
- Site Design and Development
- > Water Systems Design
- Sanitary Sewer Systems Design
- Storm Sewer System Design
- Benefit/Cost Analyses
- Risk Analyses and Assessment
- > Construction Quality Assurance
- > Environmental Site Cleanups
- > Facility Regulatory Compliance Evaluations and Information Management
- > Foundation Analysis and Design
- > Geotechnical Studies and Evaluations
- > NPDES Permitting and Compliance Reporting
- > Regulatory Liaison
- Seismic Design of Structures and Environmental Containment Systems
- > Site Hydrology and Floodway Analysis
- Slope Stability Analysis
- Retaining Wall Design (Including Segmental Block Walls)

# PROFESSIONAL EXPERIENCE

Edwards Engineering, P.A.

Senior Project Engineer Little Rock, Arkansas

2003 to Present

> Genesis Environmental Consulting, Inc.

Project Engineer and Principal Little Rock, Arkansas

1992 to 2003

> James L. Grant and Associates, Inc.

Staff Engineer



Little Rock, Arkansas

1992 to 1992

Arco Thunder Basin Coal Company

Plant Technician
Black Thunder Mine- Wright, Wyoming

1991

> AT&T Network Systems

Communications Technician Casper, Wyoming

1988 - 1989

# **CAREER SUMMARY**

Mr. Edwards has worked extensively with several solid and hazardous waste management facilities in Arkansas and surrounding states while providing compliance assistance in relation to applicable Federal and State regulations. These services have included facility siting, permitting, design, monitoring, and reporting. Mr. Edwards is a licensed solid waste operator (Arkansas # 00720) and has a broad base of experience in landfill design and operations. Mr. Edwards is currently the project engineer for several solid waste landfills in Arkansas where he is responsible for all design and solid waste compliance elements. He has also provided engineering design, permitting, construction quality assurance, and/or environmental compliance services at over 50 landfills in Arkansas and neighboring states.

Mr. Edwards has a strong background regarding a wide range of health, safety, and environmental regulations at the local, state, and federal levels. These regulations include requirements and standards developed and enforced by the Environmental Protection Agency (EPA), Occupational Health and Safety Administration (OSHA), Mine Safety and Health Administration (MSHA), FEMA, Nuclear Regulatory Commission (NRC), Federal Highway Administration (FHA), Association of State Highway and Transportation Officials (ASHTO), Arkansas Department of Health (ADH), and Arkansas Department of Environmental Quality (ADEQ). Mr. Edwards is also active in several professional/technical standards organizations including the American Society for Testing of Materials (ASTM) where he is active on the geosynthetics, geotechnical, and erosion control standards committees.

Mr. Edwards has a broad range of background and experience regarding site design/development, geotechnical analysis, foundations studies, hydrology analysis, benefit/cost analysis, seismic response/risk analysis, and environmental risk assessment/analysis. This work has included water system analysis, sewer system analysis/design, storm sewer system analysis/design, floodway analysis, levee system design, preparation of Conditional Letters of Map Revisions (CLOMRS) via the Federal Emergency Management Agency (FEMA), and detailed site seismic response analysis studies.



Mr. Edwards has worked with developers to site and develop various residential, private, and commercial developments in Arkansas and surrounding states. These projects include large scale multi-family developments, residential subdivisions, commercial developments, road improvements, solid waste management/disposal facilities, and utility improvements (water, sewer, storm sewer).

Mr. Edwards formed Edwards Engineering, P.A. in the Spring of 2003 and currently holds the positions of President and Senior Engineer. In this capacity, he is responsible for overseeing, organizing, managing, and executing specific projects undertaken by Edwards Engineering, P.A. He is also responsible for managing the day to day business activities of the company.

Prior to forming Edwards Engineering, P.A., Mr. Edwards was employed by Genesis Environmental Consulting, Inc. (GEC) located in Little Rock, Arkansas. Mr. Edwards became an Associate at GEC in 1995 and later became a Principal (1 of 5 partners). While at GEC, Mr. Edwards managed and executed a wide variety of civil and environmental projects for clients.

LANCE POWELL, P.E.
DIVISION MANAGER/PROJECT ENGINEER
EDWARDS ENGINEERING, P.A.
256 Southwest Drive
Jonesboro, Arkansas 72401
(870) 268-0707

FAX: (870) 268-0464 MOBILE: (870) 243-9400 EMAIL: |powell@e-engr.com

# SUMMARY OF QUALIFICATIONS

- Experience in project management and cost estimating.
- Experience in civil construction.
- Knowledgeable of construction quality assurance and quality control procedures.
- Ability to develop and implement site designs.
- Knowledge of Arkansas Regulation 22 and environmental compliance.

# PROFESSIONAL EXPERIENCE

# EDWARDS ENGINEERING, P.A., Jonesboro, Arkansas

2006-Present

- DIVISION MANAGER/PROJECT ENGINEER
  - Preparation of intensive environmental permit applications to meet the requirements of the Arkansas Department of Environmental Quality.
  - Preparation of construction drawings, technical specifications, and bidding documents for construction projects.
  - Construction management of construction quality assurance projects.
  - Marketing and the preparation of detailed proposals.
  - Groundwater monitoring and sampling.
  - Surveying responsibilities including construction staking and the preparation of ALTA surveys under the direction of a licensed professional surveyor.

#### WCA WASTE CORPORATION, Houston, Texas

2005-2006

#### STATE ENGINEER - TEXAS/ARKANSAS

- Conducted quarterly environmental inspections.
- Conducted annual storm water compliance evaluation and training.
- Managed permit changes for solid waste, air, and water permits.
- Worked with site managers to ensure compliance with environmental, safety, and health regulations and permits.
- Monitored compliance system use and data logged.
- Assisted in managing safety program.
- Conducted quarterly safety inspections.
- Managed consultants to ensure timely, cost-effective creative designs and permits.



#### **LANCE POWELL**

Resume, Page 2

• Responsible for construction management of contractors, CQA, surveyors, and engineers to ensure projects met capital budgets.

#### MOBLEY CONTRACTORS, INC., Jonesboro, Arkansas

2003-2005

#### PROJECT ENGINEER

*May 2003 – May 2004* 

Involved with several highway construction projects that included bridge construction, highway widening, and drainage improvements. Responsibilities included:

- Cost estimating and the preparation of detailed bid proposals.
- Executing and managing projects with budgets in excess of \$4 million.
- Construction quality control program for existing projects.

May 2004 - July 2005

Worked as a Project Engineer\Manager on a \$38 million hydroelectric project near Batesville, Arkansas. Project consisted of the construction of three separate hydroelectric plants adjacent to existing dams on the White River. A multitude of civil construction methods were employed on the project including:

- Mass soil excavation.
- Blasting and mass rock excavation.
- Marine construction.
- Sheet pile cofferdams and a slurry wall cutoff.
- Extensive concrete formwork design and mass concrete construction.
- Rock anchors and grouting operations.
- Pile driving for crane supports.
- Elaborate dewatering systems.

Directly responsible for managing, coordinating, and scheduling the construction activities at two of the units where the power plants were being constructed inside existing lock structures built between 1899 and 1902. Notable work includes the construction of a fifty feet by eighty feet sheet pile cofferdam to create a dry work area, the installation of seventy-two rock anchors for structural support of the lock walls, and the design and construction of a timber pile trestle to support a 170 ton crane to perform the work. Worked directly with a structural engineering consultant for the design and construction of a forming system for the powerhouse draft tube which was sixty feet long with a maximum radius of twenty six feet.

# GENESIS ENVIRONMENTAL CONSULTING, INC., Little Rock, Arkansas

1999-2003

# PROJECT MANAGER

Responsible for organizing, managing, and executing projects involving all aspects of civil engineering and design including:

- Marketing and the preparation of detailed proposals.
- Preparation of construction drawings, technical specifications, and bidding documents for construction projects.
- Construction management of construction quality assurance projects with construction costs in excess of \$6 million.
- Preparation of intensive environmental permit applications to meet the requirements of the



# LANCE POWELL

Resume, Page 3

Arkansas Department of Environmental Quality.

- Wetland delineation and the development of wetland mitigation plans in accordance with federal and state regulations for solid waste disposal facilities and industries in Arkansas.
- Management of projects with budgets in excess of \$250,000.

# **EDUCATION**

Bachelor of Science in Engineering, Concentration in Civil Engineering Arkansas State University, 1998

# PROFESSIONAL REGISTRATION, CERTIFICATIONS, AND LICENSES

- Registered Professional Engineer, Arkansas (No. 12976)
- Registered Professional Engineer, Illinois (No. 062-060773)
- ACI Certified Field Testing Technician, Grade 1
- Nuclear Gauge Safety Training Certification

#### **SKILLS**

Microsoft Office Microsoft Project Eagle Point Civil Series AutoCAD Version 2007 Carlson Survey 2007 Carlson Civil 2007 TR-55 Watershed Modeling Haestead Methods Flowmaster



# **PROFESSIONAL QUALIFICATIONS SUMMARY FOR:**

DAVID N. TAYLOR, E.I.
PROJECT ENGINEER AND PROJECT MANAGER
EDWARDS ENGINEERING, P.A.
9804 Maumelle Blvd.
North Little Rock, AR 72113
(501) 219-2808

FAX: (501) 219-2809 MOBILE: (501) 912-6337 EMAIL: dtaylor@e-engr.com

#### **EDUCATION**

- Bachelor of Engineering in Chemical Engineering Vanderbilt University; Nashville, TN - May 1993.
- ➤ Pocahontas High School; Pocahontas, AR Honors May 1988.

# PROFESSIONAL REGISTRATION, CERTIFICATIONS, AND LICENSES

> Engineering Intern #5148

# PROFESSIONAL TRAINING AND TECHNICAL CONFERENCES

- > ADEQ Hazardous Waste Contractor/Consultant License February 2007
- > 40-hour Hazardous Materials and Site Investigations (29 CFR 1910.120(e));
  July 1993
- Process Measurement Technology Foxboro Training Institute October 1999

#### FIELDS OF SPECIALIZATION

- > Site Design and Development
- > Environmental Site Assessments
- > Industrial Process and Control Design/Development
- > Air Emissions Permitting and Regulatory Compliance
- Benefit/Cost Analyses
- Risk Analyses and Assessment
- Environmental Site Cleanups
- > Facility Regulatory Compliance Evaluations and Information Management
- NPDES Permitting and Compliance Reporting



# **PROFESSIONAL EXPERIENCE**

> Edwards Engineering, P.A.

Project Engineer Little Rock, Arkansas

2003 to Present

> Ameripol Synpol Corporation

Senior Process Engineer Beaumont, Texas

2002 to 2003

> Ameripol Synpol Corporation

Senior Process Engineer Odessa, Texas

2000 to 2002

> Ameripol Synpol Corporation

Process Engineer Odessa, Texas

1998 to 2000

Genesis Environmental Consulting, Inc.

Project Engineer and Principal Little Rock, Arkansas

1993 to 1998

# **CAREER SUMMARY**

Since graduating from prestigious Vanderbilt University with a degree in Chemical Engineering in 1993, Mr. Taylor has acquired a broad range of knowledge and expertise in the fields of environmental, industrial, and process engineering. This work has involved systems/process engineering and design, environmental permitting, regulatory compliance, planning, facilities design, and environmental analysis.

Mr. Taylor currently holds the positions of Project Engineer and Project Manager for Edwards Engineering, P.A. In this capacity, he is responsible for managing and executing a wide range of environmental, civil, and industrial projects while providing service to Edwards Engineering, P.A. clients. Mr. Taylor is responsible for siting, permitting, regulatory compliance, code compliance (site development), cost analysis, monitoring, and reporting. Mr. Taylor also provides technical analysis and computer modeling support for environmental and civil engineering projects.

Prior to joining Edwards Engineering, P.A., Mr. Taylor was employed by Ameripol Synpol Corporation (since 1998). While employed by Ameripol Synpol Corporation, Mr. Taylor served as Process Engineer and later Senior Process Engineer for major rubber manufacturing plants located in Odessa and Beaumont, Texas. The Beaumont Plant included +/- 260 employees dedicated to the continuous production of emulsion based



Styrene-Butadiene Synthetic Rubber (SBR). Mr. Taylor provided troubleshooting and contractor oversight of plant improvement projects in the coagulation/baler areas.

The Odessa Plant of Ameripol Synpol employed roughly 180 employees. While acting as Senior Process Engineer at the Odessa plant, Mr. Taylor generated and supervised the implementation of various design packages for the improvement of material handling and processes. Mr. Taylor also reviewed and edited numerous P&IDs and procedures to meet PSM and ISO 9002 standards.

Prior to joining Ameripol Synpol, Mr. Taylor was employed as Staff Engineer and Project Engineer at Genesis Environmental Consulting, Inc. (GEC) in Little Rock, Arkansas. While at GEC, Mr. Taylor was responsible for overseeing, managing and executing a wide variety of engineering and consulting projects for industries, governmental entities, and private interests. This work involved environmental permitting (air, water, hazardous waste, and solid waste), regulatory compliance, environmental monitoring, facility design, planning, and cost analysis.

