# 2023 Landfill Gas Management and Air Permitting and Compliance Qualifications

# SCS ENGINEERS

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EXHIBIT exhibiteticker.com

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### 1 OVERVIEW OF THE FIRM

This qualifications statement is submitted by: Stearns, Conrad and Schmidt Consulting Engineers, Inc. dba SCS Engineers.

Primary Client Contacts: Josh Roth, P.E. and Eric Peterson, P.E.

### **DESCRIPTION AND ORGANIZATION OF THE FIRM**

SCS Engineers is one of the oldest and largest privately-held environmental service firms in the United States and is a recognized world leader in the field of solid waste engineering, particularly landfill gas engineering. SCS has been a leader in the industry since its inception in 1970. We provide a full range of compliance, landfill and landfill gas services

Figure 1.

- Title V and NSPS compliance services to landfill gas design services (see **Table 1**, next page).

The firm employs over 1,000 professional and support staff located in more than 70 offices throughout the nation. SCS is independently-owned by its employees, all of whom are committed to providing objective, responsive, and superior services to clients. We are strong financially, have never been acquired by another firm, and our company and staff have significant longevity.

SCS is a recognized world leader in the field of solid waste engineering, particularly landfill gas engineering.

SCS corporate headquarters in located in Long Beach, California with SCS' Medford, NJ office located approximately 70 miles from the landfill. Our Mid Atlantic offices (Figure 1) employ over 100 professionals with significant experience in landfill gas engineering, permitting, O&M, controls engineering, recycling and materials management, organics management, and solid waste and landfill engineering services.

As a nationwide firm, SCS is fortunate to have a large network of environmental professionals that consistently provide interoffice support on projects all over the county. Additional details regarding

Taunton, MA Hartford, CT Providence RI Suffern, NY Medford, NJ Denver, PA Harrisburg, PA Columbia, MD Reston, VA Midlothian, VA Virginia Beach, VA Winchester, VA Asheville, NC Charlotte, NC Raleigh, NC Charleston, SC

SCS Mid-Atlantic Office Locations

our overall company qualifications are available on our website: www.scsengineers.com.

### Table 1. SCS Engineers' Compliance, Landfill and Landfill Gas Services

# Air Compliance

- Regulatory Compliance Consulting for landfills, wastewater facilities and stationary sources
- > Title V Permitting, Compliance and Reporting
- NSPS Compliance and Reporting
- Greenhouse Gas (GHG) Reporting
- Surface Emissions Monitoring (SEM)
- Data Review and Analysis

# Landfill Gas (LFG)

- Landfill Gas Management
- LFG System Design, Construction and Consulting
- > LFG System Operations, Maintenance & Monitoring
- Data Review and Analysis
- > LFG-to-Energy Consulting, Design
- > Flare Station Design, Permitting, Installation
- > Bioreactor System Design, Consulting
- Bid Specifications
- LFG Migration Control and Consulting
- LFG Generation Modeling

# Wastewater

- Evaluation of Wastewater Treatment Facilities
- Wastewater Treatment Plant System Design
- Feasibility Studies
- Permitting & Regulatory Compliance
- Pre-Treatment System Design and Testing
- Wastewater System Operation, Monitoring & Maintenance
- Wastewater and Sludge Monitoring
- Wastewater Characterization Studies

# Landfill/ Solid Waste

- Landfill Design and Geotechnical Engineering
- > Permitting of Landfill Expansions
- Solid Waste Management Plans
- > Final Cover Design
- Construction Plans and Bid Specifications
- ➤ Landfill Closure and Post Closure Plans and Monitoring
- Well Installation and Groundwater Monitoring
- Waste Characterization Studies
- Waste Reduction and Recycling

## 2 EXPERIENCE AND QUALIFICATIONS

# LANDFILL GAS MANAGEMENT, CONSTRUCTION AND COMPLIANCE MONITORING

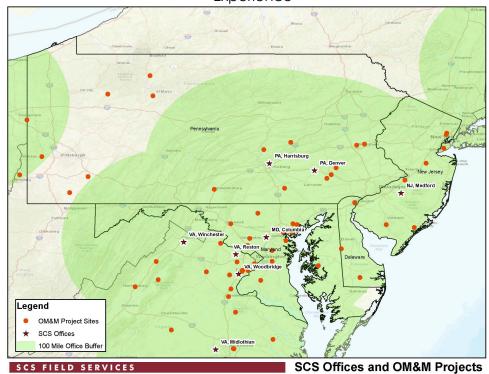
SCS Engineers is recognized worldwide as a leader in LFG management. The firm's services include planning, permitting, investigation, engineering design, construction, and operation and maintenance of LFG control and energy recovery systems. SCS's LFG system designs are in operation at hundreds of landfills around the world.

Nationwide, we have performed over 2,000 LFG management projects. SCS Field Services (SCS-FS), a division of SCS, was established to construct, operate, and maintain LFG systems. SCS-FS has constructed more than 200 LFG collection systems nation-wide and is currently operating and/or maintaining over 400 of these systems. SCS and SCS-FS often work together on design/build projects that typically combine the design and construction steps into a single contract, resulting in an expedited construction schedule and reduced overall cost.

SCS-FS has constructed more than 200 LFG collection systems nation-wide and is currently operating and/or maintaining over 400 gas systems.

**Figure 2** details SCS' Mid-Atlantic experience in the Operations, Maintenance and Management of landfill gas systems.

Figure 2. SCS Landfill Gas System Operations, Maintenance and Management Experience



**Table 2** provides a partial listing of landfill gas consulting experience in the Mid-Atlantic region.

Table 2. SCS Landfill Gas Consulting Experience

Project Location	LFG System Design and Engineering	LFG System Operation and Maintenance	LFG Energy Consulting Services	GCCS Data Review and Analysis	Greenhouse Gas Reporting	Permitting of New Sources, Modifications and Expansions	Wellfield Surface Emissions Monitoring
New Jersey							
Atlantic Co. Utilities Auth. LF	✓	✓			✓	✓	✓
BFI Monroe LF	<b>✓</b>	✓		<b>√</b>	,		
Burlington County LF	<b>✓</b>	✓	<b>✓</b>	✓	✓	<b>√</b>	✓
Cape May Co. MUA LF Cumberland Co. Imp. Auth. LF	<b>✓</b>	✓	<b>✓</b>	✓	✓	<b>✓</b>	✓
Gloucester Co. Imp. Auth. LF	<b>√</b>	<b>√</b>	•	<b>√</b>	<b>√</b>	✓	· ✓
Middlesex County Utilities Auth. LF	✓		✓				
Monmouth County LF	✓	✓	✓			✓	
PPL Pennsauken LF		✓	✓	✓			
Pinelands Park LF			,		<b>√</b>	,	
Salem Count Improvement Auth. LF	<b>✓</b>		<b>V</b>	✓	✓	<b>√</b>	
Sussex County LF Warren County LF	<b>✓</b>	✓	▼		✓	<b>✓</b>	<b>V</b>
Pennsylvania	•	•			<u> </u>	<u> </u>	•
Alliance LF	<b>✓</b>		<b>√</b>	✓		✓	✓
Amity LF	•		<b>√</b>				
Arden LF			✓				
BRADS C&D LF	✓	✓		✓		✓	✓
CES LF			✓			✓	
Conestoga LF	✓	✓		✓	<b>√</b>		✓
County Environmental of Clarion LF					✓	✓	<b>✓</b>
Cumberland County LF Dauphin Meadows LF		1	<b>√</b>	<b>√</b>		<b>∀</b>	<b>v</b>
Frey Farm LF		<b>*</b>	<b>→</b>	<b>*</b>	✓	<b>✓</b>	•
Grand Central LF			<b>√</b>	✓	<b>✓</b>	<b>√</b>	
Greater Lebanon Refuse Auth. LF			✓			✓	✓
Greenridge Reclamation LF	✓				✓		
GROWS LF	,		✓	,		,	
Bethlehem LF	<b>V</b>	✓	<b>√</b>	✓	<b>√</b>	<b>√</b>	<b>√</b>
Blue Ridge LF Imperial LF	✓	✓	<b>√</b>	✓	<b>√</b>	✓	✓
imperial LF			▼		*		

Project Location	LFG System Design and Engineering	LFG System Operation and Maintenance	LFG Energy Consulting Services	GCCS Data Review and Analysis	Greenhouse Gas Reporting	Permitting of New Sources, Modifications and Expansions	Wellfield Surface Emissions Monitoring
Kelly Run LF						1	✓
Lanchester LF McKean County LF				✓	✓	<b>✓</b>	<b>✓</b>
Modern LF	✓	✓	✓	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
Monroeville LF			✓				
Mountain View Reclamation LF	$\checkmark$	✓	$\checkmark$	$\checkmark$	$\checkmark$	✓	
Pine Grove LF	✓	✓		$\checkmark$	✓	✓	✓
Pioneer Crossing LF	,		✓	,	<b>√</b>	<b>√</b>	
Pottstown LF	✓			<b>V</b>	<b>V</b>	✓	
Rolling Hills LF Seneca LF			<b>∀</b>	<b>V</b>	•		<b>V</b>
Tri-County LF			<b>✓</b>				
Tullytown LF			✓				
Valley LF/AER			✓				
Western Berks LF	✓	✓		$\checkmark$	✓	✓	✓

# Landfill Gas Data Management System

SCS has developed a state-of-the-art data management program that manages and tracks landfill monitoring data for regulatory compliance purposes. The data management system can be used to evaluate wellfield performance, regulatory compliance and document management. The SCSeTools Program includes trend analysis, anomaly investigation, data mapping, and detailed reporting components. Important site documents can be uploaded, stored, and retrieved from one secure location. Color-coded range maps highlight user-specified conditions in multiple viewing options.

Currently, over 650 sites are serviced by SCSeTools across the United States. The web accessible server is located in a backed-up, data-safe facility. The centerpiece of the system is a site-specific database that accepts and stores electronic data uploaded from field monitoring instruments, such as the Landtec GEM-5000™.

### LANDFILL TITLE V EXPERIENCE

SCS has extensive experience in Pennsylvania with air permitting, compliance, and reporting. We are well-qualified to provide clients with any air permitting services associated with solid waste facilities.

SCS has provided air permit-related services for dozens of solid waste clients in Pennsylvania, including Title V permits, plan approvals, netting analyses, non-attainment New Source Review, emission offsets, emission statements, best available technology (BAT) analyses, new source performance standards (NSPS), and other regulatory programs. Air permit-related services have been provided to entities throughout Pennsylvania and New Jersey in relation to their solid waste facilities:

SCS has been at the forefront of the EPA"s Title V program for landfills since its inception. This expertise has led to Title V permitting projects for over 350 MSW landfills throughout the United States. For many of these projects, we developed Title V applications, reviewed draft Title V permits, and/or negotiated permit terms on behalf of our clients. In addition, we provide continued Title V monitoring and reporting services for many of these sites. SCS assists our clients with ongoing compliance, including:

SCS has performed over 350 MSW landfill Title V permitting projects throughout the United States.

- Title V compliance reviews/audits.
- Annual and semi-annual compliance reporting.
- Emission Statements.
- Title V permit modifications for changes at a facility.
- Completion of Title V renewal applications every 5 years.

### **NSPS COMPLIANCE SERVICES**

Through our activities over the past 25 years, SCS is a leading authority on the NSPS rule and its implementation. SCS actively works with representatives from Waste Management, Republic, Waste Connections, SWANA, NWRA and other industry stakeholders to address solid waste industry concerns regarding NSPS rules. We assist in the development of industry-supported comments and raise concerns regarding the practical and financial impacts that the regulations will have on our clients, and the industry as a whole.

SCS has conducted NSPS related projects at more than 150 landfills nationwide. We provide NSPS compliance services through regulatory reporting and onsite monitoring services, the scope of which is largely defined in the NSPS regulations (Rule) themselves, as well as other guidance and generally accepted interpretations of the language in the Rule. We prepared numerous gas collection system design plans, prepared liquids addition reports and conducted SEM monitoring.

A partial listing of clients in the Mid-Atlantic region for which we have provided Title V and NSPS compliance services is provided in **Table 3** below.

Table 3. SCS Title V and LFG Regulatory Compliance Experience

Project Location	Title V Permit (Initial Application, Renewal, or Mods)	Title V Reporting and/or Emission Inventories	NSPS Compliance/Reporting	Compliance Inspections Consulting (EPA/State)	Air Permit to Construct/Preconstruction Permit	NSPS Tier 2 Sampling/NMOC Reports	NSPS GCCS Design Plan	Source Performance Testing & Reporting
New Jersey								
Atlantic Co. Utilities Auth. LF			✓	,				
Burlington County LF		<b>√</b>	1	<b>√</b>	✓		✓	
Cape May Co. MUA LF	✓	✓	✓	✓				
WM Cinnaminson LF	✓	✓			1	1	,	
Cumberland Co. Imp. Auth. LF E-1 LF	<b>√</b>	·/	V	•	•	V	V	•
Gloucester Co. Imp. Auth. LF	<b>*</b>	1	1	1		1	1	1
NJ Sports and Exposition Authority Keegan LF	*	•	•	<b>V</b>	1	•	•	·
Kingsland LF		✓			·			
WM Landfill & Development (L&D) LF				✓				
WM Middle Mar Tee LF	✓	✓						
Oldmans Township LF					✓			
WM Parklands LF				✓				
Salem County Imp. Auth. LF	✓	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$		
Sussex County LF		$\checkmark$						
Warren County LF	✓	✓			✓			✓
Pennsylvania								
Alliance LF	✓	✓					$\checkmark$	✓
Amity LF		$\checkmark$						
BRADS C&D LF					✓			
CES LF	✓	✓	✓					
Conestoga LF		,	,	<b>✓</b>				
Cumberland County LF	<b>√</b>	<b>√</b>	✓	✓	1			
Dauphin Meadows LF	<b>√</b>	<b>∀</b>	✓		✓	✓	<b>√</b>	<b>V</b>
Frey Farm LF Grand Central LF	<b>∀</b>	<b>∨</b>	<b>✓</b>		./	<b>∨</b> ✓	•	· /
Greater Lebanon Refuse Auth. LF	<b>∀</b>	<b>▼</b>	•		·/	•		•
Greater Lebanon Reluse Aum. Lr Bethlehem LF	<b>√</b>	<b>V</b> ✓	✓	1	<b>√</b>	✓	1	1
Blue Ridge LF	<b>√</b>	<b>√</b>	<b>✓</b>	✓	<b>√</b>	<b>✓</b>	<b>√</b>	<b>✓</b>
Kelly Run LF	<b>√</b>	<b>/</b>	•	1	•	1	,	
Lanchester LF	<b>√</b>	1						
McKean County LF	1	✓	✓	✓	✓	✓	✓	
Modern LF	✓	✓	✓	✓	✓	✓	✓	✓

Title V Permit (Initial Application, Renewal, or Mods)	Title V Reporting and/or Emission Inventories	NSPS Compliance/Reporting	Compliance Inspections Consulting (EPA/State)	Air Permit to Construct/Preconstruction Permit	NSPS Tier 2 Sampling/NMOC Reports	NSPS GCCS Design Plan	Source Performance Testing & Reporting
	<b>√</b>		./	./		./	✓
1					1	•	<b>V</b>
<b>✓</b>	<b>✓</b>	•	<b>√</b>	<b>√</b>	<b>√</b>	•	✓
✓	✓	✓	✓	✓	✓		✓
	✓						
	$\checkmark$						
	/						
	<b>✓ ✓</b>	\frac{1}{4}	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\frac{1}{4}	\( \frac{1}{4} \) \( \frac{1}{		

# **GREENHOUSE GAS (GHG) REPORTING**

SCS provides Greenhouse Gas reporting assistance for the majority of the 900 landfills required to report under the EPA's GHG reporting program. SCS has also completed GHG reporting for over 500 landfills, including those owned/operated by Republic Services, Inc., Waste Connections, and Waste Management. Since the inception of the GHG Reporting Rule, SCS has been helping clients understand the regulations and comply with the monitoring and reporting requirements set forth in the Rule. SCS has been engaged with the EPA and industry leaders as the rule and its applicability to Landfills has been applied and interpreted. We have also assisted the industry in developing comments on the MRR, which led to positive changes to enhance the rule. No other firm possesses this level of expertise and experience in dealing with methane GHG emissions from landfills.

### 3 PROFESSIONAL AFFILIATIONS

The professional staff at SCS is involved in numerous societies and organizations. For the sake of brevity, listed below are several organizations with which our landfill gas practice leaders are actively involved.

- Solid Waste Association of North America (SWANA). SCS holds many offices within SWANA including:
  - Pat Sullivan, Chair of LFG Rules and Regulations Committee
  - Alex Stege, Chair of LFG Generation and Modeling Committee
  - Mike Murphy, Chair of LFG Field Practices Committee
  - Tom Shuput, Chair of LFG Program Committee
  - Eric Peterson, Vice President, Board of Directors, NJ Chapter
  - Michelle Leonard, President, International Board of Directors
  - Denise Wessels, President, PA Chapter
- Pennsylvania Waste Industry Association (PWIA) Josh Roth is on the Landfill Air Emissions Technical Committee.
- Waste Industry Air Coalition (WIAC).
- Air and Waste Management Association Pat Sullivan is on the Board of Directors for the Mother Lode Chapter.
- American Society of Mechanical Engineers.
- American Institute of Chemical Engineers.

### 4 SPECIAL ACCREDITATIONS

Hundreds of employees at SCS hold professional licenses in their discipline. In addition, a number of SCS personnel are licensed by the Commonwealth of Pennsylvania.