'SES consultants, inc.

609 West Main Street • P.O. Drawer 190 • Clarksburg, WV 26302-0190 304.624.9700 • 304.622.0981 • 304.842.3325 • http://www.msesinc.com Office Fax 24 Hour World Wide Web



August 12, 2009 Proposal No. PR-09-100

Mr. Chuck Bowman
Buyer Supervisor
State of West Virginia
Purchasing Division
P. O. Box 50130
Charleston, West Virginia 25305

EXPRESSION OF INTEREST
SITE CHARACTERIZATION STUDY
LEACHATE MANAGEMENT AND CLOSURE CAP DESIGN
FOR
CITY OF CLARKSBURG LANDFILL
RFQ NO. DEP14706

RECEIVED

2009 AUG 12 A 8: 30

PURCHASING DIVISION STATE OF WV

Dear Mr. Bowman:

MSES Consultants, Inc. (MSES) is pleased to submit this Expression of Interest for the professional architectural and engineering services being solicited by REQ No. DEP14706 for the site characterization study, leachate management, and closure cap design for the City of Clarksburg Landfill. This submittal includes the following:

f Cl	arksburg Landfill. This submittal includes the following:
	Completed and signed Page 1 of the RFQ.
	Completed Purchasing Affidavit.
	Completed "West Virginia Department of Environmental Protection, Landfill Closure Consultant Qualification Questionnaire".
O.	Supplemental information for Questionnaire Item 19, which includes an overview of MSES with information describing our qualifications, experience, management and staffing capabilities, and related prior experience. Also, this supplemental information includes a summary of MSES' direct experience with the City of Clarksburg Landfill.

	Environmen	tal		Engineering		Ene	rgy [Air	
Safety	Land Services		Wa	ste Manageme	nt		Wate	2		Industrial Hygiene

MSES has extensive experience in landfill site characterization studies, leachate management, and closure design for existing and planned landfills. This submittal demonstrates MSES is well qualified to provide these services for the City of Clarksburg's MSW Landfill. Our dedicated staff of full-time in-house professionals have the capabilities and experience to fully realize the Department of Environmental Protection's project goals in a technically-sound, highly-professional, and cost-effective manner. In summary, the MSES Team provides:

- (1) substantial experience on similar projects
- (2) strong performance record on similar projects
- (3) comprehensive in-house expertise
- (4) regional presence, knowledge, and experience
- (5) fully-qualified and experienced project personnel
- (6) clear understanding of goals and requirements of the West Virginia Department of Environmental Protection
- (7) familiarity with applicable solid waste regulations and other federal, state, and local codes and policies.
- (8) extensive knowledge of the City of Clarksburg Landfill
- (9) sincere interest in teaming with the West Virginia Department of Environmental Protection and the City of Clarksburg.

We thank you for the opportunity to submit this Expression of Interest and look forward to working with you on this important, upcoming assignment.

Sincerely,

awkence M. Rine

LMR/dlb





RFQ COPY

TYPE NAME/ADDRESS HERE

State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

Request for GEONUMBER Quotation DEP14706

DEP14706

8888 P/	(GE
	1

ADDRESS:CORRE		

CHUCK BOWMAN 304-558-2157

ENVIRONMENTAL PROTECTION DEPARTMENT OF OFFICE OF WASTE MANAGEMENT 601 57TH STREET SE CHARLESTON, WV

25304 304-926-0499

DATE PRIN	TED		TERMS OF SA	E		SHIP VIA			O:B		FREIGHTTERN	is 💮
07/23/			······································	···	<u> </u>	······					***************************************	4-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1
BID OPENING DATE	: ?	08/]	12/2009	100000000000000000000000000000000000000	200000000000000000000000000000000000000	*************	BID	OPENING	TIME	01:30	PM	
LINE	i a	UANTITY	UOP	CAT NO		ITEM NUMB	ER	UA	ITPRICE		AMOUNT	
				2000 2000 2000 200			200 200 200 200 200 200		****			80 80 80 80 80 80 80 80 80 80 80 80 80 8
0001			JВ		962-	73						
,			1		, 02							
	CITY	OF KI	COOWDA	LANDF	ILL	CLOSUR	E PROJ	ECT			······································	
												;
<u>[</u>												
			FXPR	FSSTA	N OF	INTER	cer					
			-/:		11 01	417 1 L IV	L 3 1					
	THE I	WEST V	IRGINIA	PURC	HASII	NG DIV	ISION,	FOR TH	E AGENC	γ,		
	THE !	MEST V	IRGINIA	DEPA	RTME	NT OF I	ENVIRO	NMENTAL				
	PROTE	ECTION	, IS SO	LICIT	ING I	EXPRES:	SIONS	OF INTE	REST FO	R		
	IHE :	CLUCH STIF C	HARACTE	RIZAT	ION	STUDY,	LEACH	ATE MAN	AGEMENT			
	LAND	CLUSU	LOCATED	IN H Deote	N PUI Appi	3 1 HE 1	MA PIIA A	F CLARK	SBURG			
	FOLL	MING	BID REO	UIREM	ENTS	AND A	, MV, TTACHF	D SPECI	FICATIO	Ne.		
						***************************************		0, 201,	TOMITO	1.5		
	BANKE	RUPTCY	: IN T	HE EV	ENT T	THE VE	NDOR/C	ONTRACT	OR FILE	s		
	FOR E	SANKRU	PTCY PR	OTECT	ION,	THE ST	FATE M	AY DEEM	THIS			,
	LUNIA	KACI N	RTHER O	ANTI	, ANI) IERMI	INATE	zínch coi	NTRACT			
	W 1 1 11 C	70 i FO	KINEK U	KDEK.								
								·		ļ		1
												l
				l								
				ļ								
;												
ļ												
and the second		()					Ì					
				AGE REV	ERSE SIL	E FOR TERM	AS AND CON	IDITIONS		<u> </u>		
HGNATURE Lawrence M.	Rine	1	m h /Z			TEL	EPHONE			ΥΈ	10 0-05	
TLE	7-110		FEIN 55-03		·	- μυ	4/624-				12, 2009	
President	N.	W #	35-01 % 3	20 2779				j ADL	いれにちら CHAN	GES TO BE	NOTED ABOV	'F

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

STATE OF WEST VIRGINIA Purchasing Division

PURCHASING AFFIDAVIT

VENDOR OWING A DEBT TO THE STATE:

West Virginia Code §5A-3-10a provides that: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

PUBLIC IMPROVEMENT CONTRACTS & DRUG-FREE WORKPLACE ACT:

If this is a solicitation for a public improvement construction contract, the vendor, by its signature below, affirms that it has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code. The vendor must make said affirmation with its bid submission. Further, public improvement construction contract may not be awarded to a vendor who does not have a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code and who has not submitted that plan to the appropriate contracting authority in timely fashion. For a vendor who is a subcontractor, compliance with Section 5, Article 1D, Chapter 21 of the West Virginia Code may take place before their work on the public improvement is begun.

ANTITRUST:

In submitting a bid to any agency for the state of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the state of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the state of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the state of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership or person or entity submitting a bid for the same materials, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

LICENSING:

Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

CONFIDENTIALITY:

The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf.

Under penalty of law for false swearing (West Virginia Code §61-5-3), it is hereby certified that the vendor affirms and acknowledges the information in this affidayit, and is in compliance with the requirements as stated.

Vendor's Name:	MSES Consu	ltants, In	c. /				
Authorized Signature	e:	In la	X	Date:	August 1	2, 2009	
Purchasing Affidavit (Rev	isod 01/01/09)	Lawrence M	Kine - P	resident			******

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION							
LANDFILL CL	OSURE CONSULTAI	NT QUA	ALIFICA	TION QU	ESTIONNAIRE		
PROJECT NAME	DATE (DAY, MONT	H, YEAR	.)	FEIN			
City of Clarksburg	City of Clarksburg				55-0637279		
Landfill Closure Project	August	12, 2009	9				
1. FIRM NAME	2. HOME OFFICE BUSIN	VESS ADI	DRESS	3. FORME	R FIRM NAME		
MCEC Congultanta Inc	609 West Main Str	eet		0	N. C. 1082		
MSES Consultants, Inc.	Clarksburg, WV 26	301		Same	Name Since 1976		
4. HOME OFFICE TELEPHON	E 5. ESTABLISHED	6.	. TYPE OV	VNERSHIP	6A. WV REGISTERED		
	(YEAR)		INDIVI	,	DBE (DISAVANTAGED		
			CORPOR		BUSINESS		
304.624.9700	1976		PARTNI		ENTERPRISE)		
			JOINT-VI		YES NO		
7. PRIMARY OFFICE: AD	DDECC/TELEDUONE/DE		CHARGE				
PERSONNEL EACH OFFICE	DICESS/ TELEFRONE/ FEI	NOON IIN	CHARGE	NO. (name j	particular type)		
	ic., 609 West Main Str	eet, Clar	rksburg.	WV 26301	; 304.624.9700 (office)		
	esident and John J. Kee						
	onal staff is located in t			,			
8. NAMES OF PRINCIPAL OF	FICERS OR MEMBERS	8a. NAI	ME, TITLE	E, & TELEPH	ONE NUMBER-OTHER		
OF FIRM		PRINCI	PRINCIPALS				
Lawrence M. Rin	•		Joan W	. Rine, Sec	retary-Treasurer		
John J. Keeling, PE.				304.624			
9. NUMBER OF PERSONNEL	BY DISPLINE (Bold Lette	ring Indi	cates Mini	mum Design	Team Members)		
Detailed information On Team	To Be Included						
4 ADMINISTRATIVE	1 ECOLOGISTS		1 LANDS		2 STRUCTURAL		
5 ARCHITECTS	1 ECONOMISTS		ARCHIT		ENGINEERS		
4 BIOLOGIST	3 ELECTRICAL		2 MECHA		<u>6</u> SURVEYORS		
7 CADD OPERATORS	ENGINEERS	TOTO .	ENGIN		4.0.42.007.000		
1 CHEMICAL ENGINEERS	6 ENVIRONMENTAL	ASTS :	2 MINING		19 OTHER		
2 CONSTRUCTION	* ESTIMATORS 2 GEOLOGIST		ENGIN	eeks GRAMMETI	<u> የ</u> ጀርጥር		
4 INSPECTORS	0 HISTORIANS		0 PLANN		MSTS 102 TOTAL		
17 DESIGNERS	1 HYDROLOGISTS			/REGIONAL			
4 DRAFTSMEN (CADD)	_ 112102001010	,	2 SANITA		LENDONNELL		
		=	ENGINI				
* The duties of Estimator and Specification Writers are part 2 SOILS ENGINEERS							
" The duties of Estimator and	Specification Writers are p	Jair 2	s ours i	INGINEERS)		
of the Design Engineers' dut		9411 <u>2</u>	SPECIFI				
of the Design Engineers' dut	ies.	· -	* SPECIFI WRITEI	CATION RS			
of the Design Engineers' dut TOTAL NUMBER OF WV RI	ies.	· -	* SPECIFI WRITEI	CATION RS			
of the Design Engineers' dut TOTAL NUMBER OF WV RI 12	ies. EGISTERED PROFESSIO	NAL EN	* SPECIFI WRITEI	CATION RS S IN PRIMA	RY OFFICE:		
of the Design Engineers' dut TOTAL NUMBER OF WV RI 12 *RPEs other than Civil must p	ies. EGISTERED PROFESSIO	NAL EN	* SPECIFI WRITEI	CATION RS S IN PRIMA	RY OFFICE:		
of the Design Engineers' dut TOTAL NUMBER OF WV RI 12	ies. EGISTERED PROFESSIO	NAL EN	* SPECIFI WRITEI	CATION RS S IN PRIMA	RY OFFICE:		
of the Design Engineers' dut TOTAL NUMBER OF WV RI 12 *RPEs other than Civil must p type of work. 10. If submittal is by joint ventur	ies. EGISTERED PROFESSIOn rovide supporting docume e, list participating firms &	NAL EN	* SPECIFI WRITEI GINEERS hat qualificate grading areas	CATION RS IN PRIMA es them to su s of responsib	RY OFFICE: pervise and perform this fility (including		
of the Design Engineers' dut TOTAL NUMBER OF WV RI 12 *RPEs other than Civil must p type of work.	ies. EGISTERED PROFESSIOn rovide supporting docume e, list participating firms &	NAL EN	* SPECIFI WRITEI GINEERS hat qualificate grading areas	CATION RS IN PRIMA es them to su s of responsib	RY OFFICE: pervise and perform this fility (including		
of the Design Engineers' dut TOTAL NUMBER OF WV RI 12 *RPEs other than Civil must p type of work. 10. If submittal is by joint ventur	cies. EGISTERED PROFESSION rovide supporting docume e, list participating firms & contact par	outline sprarticipating	* SPECIFI WRITEI GINEERS hat qualified ecific areas g firm mus VENTU	CATION RS SIN PRIMA es them to su s of responsib t complete a '	RY OFFICE: pervise and perform this ility (including 'Consultant Confidential		

11. OUTSIDE KEY CONSULTANTS/ SUB-CONSULTANTS ANTICIPATED TO BE USED.						
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE				
NO SUB-CONSULT	ANTS WILL BE USED	□YES □NO				
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE				
		□YES □NO				
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE				
		□YES □NO				
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE				
		□YES □NO				
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE				
		□YES □NO				
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE				
		□YES □NO				
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE				
		□YES □NO				
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE				
		□YES □NO				
NAMEAND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE				
		□YES □NO				

12. ***Note: <u>Personnel</u> refers to those who will be working directly on the project:

A. Are your firm's personnel experienced in Solid Waste Landfill Closure Design?

YES Description and Number of Projects:

All the MSES staff members to be assigned to this project have been a project team for solid waste projects throughout West Virginia since 1984. The team to be assigned has experience in new landfill siting, planning, design, permitting, and management. Landfill closure experience consists of closure design planning, gas venting, leachate collection/conveyance/treatment, cap maintenance, and land area beneficial reuse. Most of the staff are SWANA-Certified Landfill Managers, Geosynthetic Accreditation Institute-Certified Clay and Geosynthetic Liner Professionals, Certified Monitoring Well Designers/Drillers, Registered Professional Engineers, and Professional Land Surveyors. The number of solid waste management landfill projects exceeds 78; the number of hazardous waste landfill designs and closures exceeds 20. For more detailed explanations and concise landfill project descriptions refer to the supplemental information provided by Item 19 of this questionnaire.

NO

B. Are your firm's personnel experienced in Solid Waste landfill site characterization assessment and evaluation?

YES Description and Number of Projects:

The Project Team to be assigned to this project has extensive experience in solid waste landfill site characterizations, assessments, and evaluations. This Team, as noted above, has worked together since 1984. Experience includes solid waste, C&D, and hazardous and non-hazardous landfill site characterizations, assessments, and evaluations. The Project Team to be assigned is experienced in ASTM Phase I, II, and III Environmental Site Assessments, as well as landfill gas investigations, surface water and groundwater assessments, and leachate collection/storage/treatment. The number of solid waste management landfill projects exceeds 78; the number of hazardous waste landfill designs and closures exceeds 20. For more detailed explanations and concise landfill project descriptions refer to the supplemental information provided by Item 19 of this questionnaire.

NO

C. Are your firm's personnel experienced in landfill closure construction inspection?

YES Description and Number of Projects:

The Project Team to be assigned to this landfill closure project has worked as a team since 1984. In addition to the various projects and experience outlined above, unique closure projects have involved the adapted reuse of short paper fibers (SPF) as a cap medium. MSES, in association with BFI (Allied Waste), developed SPF solid waste closure cap methods and techniques that are now accepted as both impermeable cap and growth layer media for abandoned landfills, coal waste areas (gob piles), flyash areas, etc. This technique is now being used in New Jersey, Pennsylvania, Virginia, Maryland, and West Virginia. In addition, MSES has been awarded a U. S. Department of Energy (USDOE) contract to study the capture and conditioning of landfill gas for use as fuel for boilers and generators. Also being studied is the feasibility of providing pipeline quality gas for

12. CONTINUED

interconnects with local gas distributors. MSES' Mr. Charles H. "Sam" Muncy, Jr., P.E., P.S., has been invited to present MSES' landfill gas capture projects and findings at various USDOE conferences. For more detailed explanations and project descriptions refer to the supplemental information provided by Item 19 of this questionnaire.

NO

D. Is your firm experienced in Aerial Photography and the Development of Contour Mapping?

YES Description and Number of Projects:

Many of MSES' landfill projects, whether siting a new landfill or developing closures for abandoned and/or active landfills, begin with an accurate contour map. MSES typically maps more than 100,000 acres annually throughout the mid-Atlantic states. This mapping consists of areas as small as 5 acres, to tracts as large as 36,600 acres. For more detailed explanations and concise project descriptions refer to the supplemental information provided by Item 19 of this questionnaire.

NO

E. Are your firm's personnel experienced in evaluating ground water contamination, such as may be associated with landfills?

YES Description and Number of Projects:

MSES personnel have been extensively involved in groundwater evaluations, contamination studies, and groundwater rehabilitation projects for numerous projects, including abandoned landfills, the siting of new landfills, and landfill closure projects. MSES has performed similar groundwater evaluation programs for hazardous waste sites and provided groundwater remediation programs to address problems associated with identified groundwater contamination. MSES' staff has been involved with the West Virginia oil and gas industry for land application of coalbed methane waters, groundwater assessments for Brownfields projects, and groundwater characterizations and remediation programs for numerous manufacturing clients throughout West Virginia and the mid-Atlantic states. Four of the MSES Project Team members to be assigned to this project are West Virginia Certified Groundwater Monitoring Well Designers/Drillers.

NO

F. Are your firm's personnel experienced in Landfill Closure cost estimating?

YES Description and Number of Projects:

The staff members to be assigned to this landfill closure project are intimately familiar with proper closure techniques that not only protect the environment and the safety, health, and well-being of the general public, but do so in a cost-effective manner. The MSES project staff is very cognizant of providing realistic costing for closure activities for various types of landfills and closure cap methods. MSES prides itself on providing accurate and realistic closure costs.

NO

13a.PERSONAL HISTORY STATEME LANDFILL CLOSURE DESIGN (nam						
		YEARS OF EXPERIENCE				
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE WITH MSES:	YEARS OF EXPERIENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPERIENCE:			
Keeling, John J. PE, CIH, QEP, CSP, LRS	20	15	20			
Principal and Project Manager						
Brief Explanation of Responsibilities: Mr. Keeling will be the Project Manager for the Landfill Closure Project. He will be						
responsible to the WVDEP for schedules, quality of work, and budgets.						
EDUCATION (Degree, Year, Specialization)						
To assist the reviewer of this questionnaire, a brief one-page professional vita is provided at the end of this page for John J. Keeling.						
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS REGISTRATION (Type, Year, State)						

John J. Keeling, P.E., C.I.H., C.S.P., Q.E.P., L.R.S.

Principal and Project Manager

Years of Experience with MSES: 20 Years of Experience with Other Firms: 15

Education

B. S. Civil Engineering, University of Kentucky, 1974

Professional Registrations/Certifications

Registered Professional Engineer - West Virginia, Kentucky, and Pennsylvania

Certified Industrial Hygienist - American Board of Industrial Hygiene

Certified Safety Professional - Board of Certified Safety Professionals

Qualified Environmental Professional - Institute of Professional Environmental Practice

Licensed Remediation Specialist - West Virginia, New York, and Ohio

Certified Visible Emissions Observer - USEPA

Licensed Asbestos Inspector/Management Planner/Clearance Air Monitor - WVBOH and

Ohio BOH

Underground Storage Tank Closure Specialist/Installer - WVDEP

Certified Monitoring Well Designer and Installer - WVDEP

Professional Organizations

American Society of Safety Engineers

American Industrial Hygiene Association

Air and Waste Management Association

Harrison County SARA Title III Local Emergency Planning Committee - Chairman

West Virginia Chapter of Air and Waste Management Association - Vice Chairperson

Past Work History

Union Carbide Corporation

Kentucky Department of Transportation

LIVAL	ee summing		
	Job Costing		Air Emission Regulatory Compliance
	Management	0	NPDES Permitting
	Earth Sciences	ū	Waste Management/Minimization
	Risk Assessment/Analysis		Hazardous Waste Management
	Regulatory Interaction		Air Emission Modeling
	Economic Feasibility	0	Asbestos Assessment
	Phase I/II Investigation		Lead Base Paint Assessment
	Remediation (Design and Permitting)		NORM Assessment
	RCRA Waste Units		Brownfields Specialist
	Drilling Programs		Health & Safety
	Bioremediation		Noise Assessment
	Geographic and Hydrologic Studies		Hydrologic and Hydraulic Analysis
	Sampling/Laboratory Programs		SARA Title III
	Air Permitting		Specification Development
	Indoor Air Quality	O	Earth Sciences
	Code Compliance	O	Environmental/Architectural Support
	E-911 Systems		GIS Systems

NIAN ATT O COURT TO		YEARS OF EXPERIENCE	
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE WITH MSES:	YEARS OF EXPERIENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPERIENCE:
Muncy, Charles H. "Sam", Jr. BS, MS, PE, PS Senior Project Engineer	19	16	19

Brief Explanation of Responsibilities:

Mr. Muncy will be the Senior Project Engineer, and will be directly involved in all aspects of the Landfill Closure Project. He will be assigned full time to this project, and will be part of the Design Team, responsible for site characterizations, leachate collection, and supervision of these activities on a day-to-day basis, to ensure timely, accurate, and usable information. Mr. Muncy will assist Mr. Keeling in the overall management of the project.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of this questionnaire, a brief one-page professional vita is provided at the end of this page for Charles H. "Sam" Muncy, Jr.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)

Charles H. "Sam" Muncy, Jr., P.S., P.E.

Senior Project Engineer

Years of Experience with MSES: 19 Years of Experience with Other Firms: 16

Education

B. S. Civil Engineering, West Virginia University, 1974

M.S. Civil Engineering, West Virginia University, 1983

Professional Registrations/Certifications

Registered Professional Engineer - West Virginia, Pennsylvania, Florida, North Carolina, Ohio, and Virginia

Professional Surveyor - West Virginia

Certified Compaction Technician - West Virginia Department of Highways

Radiation Safety Officer - NRC

Licensed Remediation Specialist - New York, Ohio, West Virginia

Certified Monitoring Well Designer and Installer - WVDEP

Certified Landfill Manager - SWANA

Geosynthetic Accreditation Institute - Clay & Geo Synthetic Liners

Professional Organizations

American Society of Civil Engineers Solid Waste Association of North America Barbour County, WV Solid Waste Authority - Member Gundle Liner Seminars and Workshops

Past Work History

Joyce Engineering Harman Construction, Inc. Southern Ohio Coal Company American Electric Power Service Corporation Mountain State Surveying

Project Management		Risk Assessment/Analysis
Regulatory Interaction		Phase I & II Investigation
Remediation (Design & Permitting)		RCRA Waste Units
Sampling/Laboratory Programs		Data Base Systems
Computer Modeling (H&H Studies)		Life Safety Codes
Specification Development		Job Costing
Property Evaluation		Site Surveys
Mapping		QA/QC Inspection & Compliance
Economic Feasibility Investigation		Structural
Soils Engineering		Earth Sciences
Storm Routing Studies		Geographic and Hydrologic Analysis
Land Planning		Site Development
Roadway/Highway		Subsurface Investigation
Bioremediation		NPDES Permitting
Erosion & Sediment Planning	0	Stormwater
Waste Management/Minimization		Civil/Architectural Support
Code Compliance		Structural/Architectural Support

REGISTRATION (Type, Year, State)

13a.PERSONAL HISTORY STATEME						
LANDFILL CLOSURE DESIGN (nat	ne type of design or v		····-			
NAME & TITLE		YEARS OF EXPERIENCE				
(Last, First, Middle Int.)	YEARS OF EXPERIENCE WITH MSES:	YEARS OF EXPERIENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPERIENCE:			
Monahan, Catherine R. BS, MS Geologist/Hydrogeologist	16	3	16			
Brief Explanation of Responsibilities:						
Ms. Monahan will be responsible for the characterization of geological and hydrogeological conditions within the landfill disposal area and its immediately surrounding area. She will be part of the team that will be examining groundwater occurrence and quality, leachate movement, quality, and management, and impacts, if any, to groundwater, and will integrate her findings into the site characterization reports and planning for the closure of the landfill.						
EDUCATION (Degree, Year, Specializa	tion)					
To assist the reviewer of this quesend of this page for Catherine R. I		ne-page professional vita	is provided at the			

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

P	RO	FE	66	IN	NA	1	VITA	4E
4.	etu/		JLY.		/ T / R	8 2	F H B /	

Catherine R. Monahan

Geologist/Hydrogeologist

Years of Experience with MSES: 16

Years of Experience with Other Firms: 3

Education

B. S. Geology, Stockton State College, 1988

M. S. Geology, University of Massachusetts at Amherst, 1991

Professional Registrations/Certifications

Certified Monitoring Well Designer and Installer - WVDEP Wetland Identification - U. S. Army Corps of Engineers Training

Professional Organizations

American Geophysical Union National Ground Water Association Association of Ground Water Scientists and Engineers

Past Work History

University of Massachusetts at Amherst - Research Assistant

	Project Management	m	Diale Aggagge and A
_		ائيا	Risk Assessment/Analysis
	Regulatory Interaction		Phase I & II Investigation
	Remediation (Design & Permitting)		RCRA Waste Units
	Sampling/Laboratory Programs		Data Base Systems
	Computer Modeling		Specification Development
	Species Identification		Job Costing
	Property Evaluation		Site Surveys
	Mapping		Wetlands
	Economic Feasibility		Soils Engineering
	Earth Sciences		Site Development
	Computer Programming		Brownfields Specialist
	Stormwater Modeling		Evapotranspiration Modeling
	Groundwater Modeling/Monitoring		Subsurface Investigation
	Bioremediation		NPDES Permitting
	Foundations		Code Compliance

NIANCE O TITLE		YEARS OF EXPERIENCE	
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE WITH MSES:	YEARS OF EXPERIENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPERIENCE:
Fisher, David W. BS, BS Senior Biologist/ Environmental Scientist	7	29	7

Brief Explanation of Responsibilities:

Mr. Fisher will be the Project Team member involved in the environmental and ecological reviews not only within the landfill area but also in potential wetlands and borrow areas. In addition, Mr. Fisher will assist in the characterization of surface water and vegetation conditions at the landfill. As a Team member, his information will be combined with the other members' findings to develop a Final Closure Plan.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of this questionnaire, a brief one-page professional vita is provided at the end of this page for David W. Fisher.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)

David W. Fisher

Senior Biologist/Environmental Scientist

Years of Experience with MSES: 7

Years of Experience with Other Firms: 29

Education

B. S., Biology & Psychology, Salem College, 1972B. S. (Minor) Chemistry, Salem College, 1972Masters Program Marshall University, 1977 to 1979

Professional Registrations/Certifications

Permit Scientific Collection - WVDNR Certified Hunter Safety Instructor - WVDNR National Rifle Association - Master Gun Safety Instructor

Professional Organizations

Member Board of Directors, West Virginia Rifle and Pistol Association Chairman, Harrison County Solid Waste Site Committee Harrison County United Way - Funding Committee City of Salem - Councilperson

Past Work History

Sturm Environmental Services - Director of Laboratory Services

WV Department of Natural Resources, Water Resources Division - Aquatic Biologist and Section Head, Aquatic Biology Section

Aquatic Sampling/Identification	Benthic - Samplin	g, Processing
	Identification	- •
NPDES Permitting	☐ Risk Assessment/Ar	nalysis
Microbiological	Regulatory Interaction	on
Phase I/II Investigations	Database Systems	
Bioassays	Data Processing	
Species/Habitat Identification	☐ Computer Modeling	
Bioremediation	☐ Waste Impacts	
Natural Sciences	☐ Information/Aquatic	Surveys
Sampling/Laboratory Programs	☐ QA/QC Programs	j
Brownfields	☐ Modeling	
NACE Internal Corrosion	Mold and Fungi	

13a.PERSONAL HISTORY STATEME LANDFILL CLOSURE DESIGN (nan	NT OF PRINCIPALS	AND ASSOCIATES RESPO	NSIBLE FOR				
	**	YEARS OF EXPERIENCE	writed to obtaining)				
NAME & TITLE							
(Last, First, Middle Int.)	YEARS OF EXPERIENCE WITH MSES:	YEARS OF EXPERIENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPERIENCE:				
Lori Steele BS	17	12	17				
Meteorologist							
Brief Explanation of Responsibilities: Ms. Steele will be responsible for	the characterizat	ion of air and finitive due	t omissions				
associated with the alagura constraint	ration Charvill al	and rughtive dus	st emissions				
associated with the closure constru							
permitting needed for gas venting	for the construction	on of the landfill closure a	nd the post-				
closure air / gas venting systems.							
EDUCATION (Degree, Year, Specializa	tion)						
To assist the reviewer of this quest end of this page for Lori Steele.	tionnaire, a brief o	ne-page professional vita	is provided at the				
MEMBERSHIP IN PROFESSIONAL O	RGANIZATIONS	REGISTRATION (Type	, Year, State)				

.PROFESSIONAL VITAE	\boldsymbol{p}	$R \Omega$	FF	CCIA	NAI	VIT	AF.
---------------------	------------------	------------	----	------	-----	-----	-----

Lori Steele Meteorologist	
Years of Experience with MSES: 17 Years of I	Experience with Other Firms: 12
Education	
B. S., Meteorology, Pennsylvania State Univers	ity, 1980
Professional Registrations/Certifications	
Certified Visible Emissions Observer - USEPA	
Professional Organizations	
Air and Waste Management Association West Virginia Chapter of the Air and Waste Ma American Meteorological Society	magement Association
Past Work History	
CH2M Hill	
Experience Summary	
☐ Job Costing	☐ Data Base Systems
☐ Risk Assessment/Analysis	☐ Computer Modeling
☐ Regulatory Interaction	☐ Air Emission Regulatory Compliance
☐ Economic Feasibility	☐ Waste Management/Minimization
☐ Phase I/II Investigation	☐ Air Emission Modeling
☐ RCRA Waste Units	☐ Brownfields Specialist
☐ Sampling/Laboratory Programs	☐ Health & Safety
☐ Air Permitting	☐ Certified Emission Statement
☐ Precipitation Modeling	☐ Modeling/Storm Predicting

13a.PERSONAL HISTORY STATEME LANDFILL CLOSURE DESIGN (na			
		YEARS OF EXPERIENCE	
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE WITH MSES:	YEARS OF EXPERIENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPERIENCE:
Williams, Kevin L. BS Project Engineer	5	15	5
Mr. Williams' civil engineering b members, to develop grading plan construction.			
EDUCATION (Degree, Year, Specialize To assist the reviewer of this ques end of this page for Kevin L. Will	stionnaire, a brief o	one-page professional vita	is provided at the
MEMBERSHIP IN PROFESSIONAL C	PRGANIZATIONS	REGISTRATION (Type	, Year, State)

PROFESSIONAL VITAE	PRI	OFF	1722	NA	I	TTA	4
--------------------	-----	-----	------	----	---	-----	---

Kevin L. Williams Project Engineer

Years of Experience with MSES: 5 Years of Ex

Years of Experience with Other Firms: 15

Education

B. S., Civil Engineering, West Virginia Institute of Technology, 1986

Professional Registrations/Certifications

Certified Landfill Manager - Solid Waste Association of North America

Licensed Contractor - State of West Virginia

Operator Qualification - USDOT

Geosynthetic Accreditation Institute - Clay & GeoSynthetic Liners

Professional Organizations

West Virginia Society of Professional Engineers - T. Moore Jackson Chapter West Virginia Institute of Technology (WVU Tech) - Chairman Alumni Committee

Past Work History

West Virginia Department of Highways

Hope Gas, Inc.

Dominion Hope

Construction Inspection/Management	u	Pipeline Design/Construction
Project Management		Regulatory Interaction
Sampling Programs		Database Systems
Job Costing		Specification Development
QA/QC Inspection & Compliance		Property Evaluation
Soils Engineering		Stormwater Routing
Flood Routing	0	Foundations
Geographic and Hydrologic Studies		Site Development
Land Planning		Hydrologic & Hydraulic Analysis
Municipal Engineering		Plumbing System Design
Site Utilities		Roadway/Highway
Subsurface Investigation		Water/Wastewater Systems
Stormwater Management		Erosion and Sediment Planning
Code Compliance		Landfill Construction/Inspection
Civil/Architectural Support		Building Inspection
USDOT Jurisdictional Pipelines		USDOT Class Determination
DOT O&M Manuals		DOT Procedures Manuals

13a.PERSONAL HISTORY STATEME LANDFILL CLOSURE DESIGN (na	ENT OF PRINCIPALS me type of design or	S AND ASSOCIATES RESPON Work) (Furnish complete data b	NSIBLE FOR ut keep to essentials)		
		YEARS OF EXPERIENCE			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE WITH MSES:	YEARS OF EXPERIENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPERIENCE:		
Kidd, Rodney D. BS	23	12	23		
Project Engineer					
Brief Explanation of Responsibilities:	<u></u>				
Mr. Kidd's civil engineering background in similar landfill closure projects will be utilized to develop access roads, stable slope designs, and leachate collection systems (piping, manholes, collection laterals, etc.).					
EDUCATION (Degree, Year, Specialization)					
To assist the reviewer of this ques end of this page for Rodney D. Ki		one-page professional vita	is provided at the		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS REGISTRATION (Type, Year, State)					

Rodney D. Kidd

Project Engineer

Years of Experience with MSES: 23 Years of Experience with Other Firms: 12

Education

B. S. Civil Engineering, West Virginia University, 1974

Professional Registrations/Certifications

Certified Compaction Technician - West Virginia Department of Highways Certified Concrete Technician - West Virginia Department of Highways

Professional Organizations

American Society of Testing Materials
American Water Well Association
National Ground Water Association
Past Chairman - City of Bridgeport Planning and Zoning Commission

Past Work History

Union Carbide Corporation

Project Management	Regulatory Interaction
Sampling/Laboratory Programs	Data Base Systems
Life Safety Codes	Specification Development
Job Costing	Property Evaluation
QA/QC Inspection & Compliance	Economic Feasibility
Soils Engineering	Earth Sciences
Flood Routing	Stormwater Routing
Geographic and Hydrologic Studies	Foundations
Land Planning	Site Development
Municipal Engineering	Hydrologic & Hydraulic Analysis
Site Utilities	Plumbing System/Design
Firewater Systems	Roadway/Highway
Subsurface Investigation	Water/Wastewater Systems
Stormwater Management	Erosion and Sediment Planning
Code Compliance	Civil/Architectural Support

		YEARS OF EXPERIENCE	
NAME & TITLE	TIP LPG OF		
(Last, First, Middle Int.)	YEARS OF EXPERIENCE WITH MSES:	YEARS OF EXPERIENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPERIENCE:
Tennant, Rex B., II BS, BS	13	24	13
Environmental Chemist/ Programmer			

Brief Explanation of Responsibilities:

Mr. Tennant's chemistry and laboratory analytical background will be utilized in developing prudent and decisive sampling programs for methane, soils, groundwater, leachate, and other media encountered within the landfill area. In addition, Mr. Tennant will provide the review and interpretation of sampling and analytical results for the project. His information will be utilized in designing the closure cap and the leachate collection and treatment systems.

EDUCATION (Degree, Year, Specialization)

To assist the reviewer of this questionnaire, a brief one-page professional vita is provided at the end of this page for Rex B. Tennant, II.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)

Rex B. Tennant, II

Environmental Chemist/Programmer

Years of Experience with MSES: 13 Years of Experience with Other Firms: 24

Education

- B. S., Chemistry, West Virginia University, 1972
- B. S., Computer Science, Salem College (now Salem-Teikyo University), 1986

Professional Organizations

American Chemical Society

Past Work History

Sturm Environmental Services - Chemist, Lab Manager, Lab Director, Vice President U. S. Army Environmental Hygiene Agency - Chemist Southern Ohio Coal Company - Environmental Technician U. S. Army Environmental Hygiene Agency - Lab Technician

Management		Computer Modeling
Regulatory Interaction		Computer Programming
Phase I/II Investigation		NPDES Permitting
Remediation (Design and Permitting)	0	Hazardous Waste Management
RCRA Waste Units		Air Emission Modeling
Sampling/Laboratory Programs		Brownfields Specialist
Data Base Systems		CAD/Intergraph/CAM
Stormwater		Indoor Air Quality
Risk Assessment/Analysis		SARA Title III
Water/Wastewater Treatment		Lead Base Paint Assessment
Data Processing		Data Management
Training		GIS Support
Mold and Fungi		NACE Internal Corrosion

13a.PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (name type of design or work) (Furnish complete data but keep to essentials)					
	YEARS OF EXPERIENCE				
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE WITH MSES:	YEARS OF EXPERIENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPERIENCE:		
Reinhart, Wayne C. BS Project Engineer	22	4	22		
Brief Explanation of Responsibilities: Mr. Reinhart's civil engineering background in clay, amended clay, and synthetic liner systems will be utilized in developing an impermeable closure cap that adequately meets both current and future requirements for landfill closure and functions.					
EDUCATION (Degree, Year, Specialization) To assist the reviewer of this questionnaire, a brief one-page professional vita is provided at the end of this page for Wayne C. Reinhart.					
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS REGISTRATION (Type, Year, State)					

	######################################	ROI EBBIOTAL VIIAL
. Reinhart ngineer		
Experience with MSES: 22	Years of Experie	ence with Other Firms: 4
n		
S., Engineering, Fairmont State C	follege, 1983	
nal Organizations		
ember Construction Specifications ational Fire Protection Association		
k History		
ark, Dietz, and Associates and C. Giese Engineers, Inc. aion Carbide Corporation		
ce Summary		
Project Management Sampling/Laboratory Programs Life Safety Codes Job Costing QA/QC Inspection and Complian Soils Engineering Land Planning Flood Routing Stormwater Management Municipal Engineering Site Utilities Firewater Systems Subsurface Investigation Stormwater Structural Code Compliance Computer Modeling	nce	Regulatory Interaction Data Base Systems Specification Development Property Evaluation Economic Feasibility Earth Sciences Hydrologic & Hydraulic Analysis Site Development Plumbing System/Design Roadway/Highway Water/Wastewater Systems Geographic & Hydrologic Studies Erosion and Sediment Planning Civil/Architectural Support CAD/Intergraph/CAM Foundations
	Experience with MSES: 22 S., Engineering, Fairmont State Contail Organizations Ember Construction Specifications tional Fire Protection Association of the History Experience with MSES: 22 And Organizations Ember Construction Specifications tional Fire Protection Association of the History Experience Engineers, Inc. ion Carbide Corporation Experience Management Sampling/Laboratory Programs Life Safety Codes Job Costing QA/QC Inspection and Compliant Soils Engineering Land Planning Flood Routing Stormwater Management Municipal Engineering Site Utilities Firewater Systems Subsurface Investigation Stormwater Structural Code Compliance	Reinhart gineer Experience with MSES: 22 Years of Experience S., Engineering, Fairmont State College, 1983 That Organizations Ember Construction Specifications Institute tional Fire Protection Association K History That Associates and Compliance Construction Carbide Corporation The Summary Project Management Compliance College College Job Costing College QA/QC Inspection and Compliance College Soils Engineering College Land Planning College Stormwater Management Compliance College Municipal Engineering College Subsurface Investigation Code Compliance Code Code Code Code Code Code Code Cod

13a.PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR LANDFILL CLOSURE DESIGN (name type of design or work) (Furnish complete data but keep to essentials)					
	in type of accign of t	YEARS OF EXPERIENCE			
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE WITH MSES:	YEARS OF EXPERIENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPERIENCE:		
Casteel, Richard R. AS, AS, PS Survey Crew Leader	24	2	24		
Brief Explanation of Responsibilities: Mr. Casteel will be the lead surveyor assigned to this Landfill Closure Project. He will be in charge and, along with his crew members, will perform the on-site surveys for property boundary location and marking and site mapping, through the construction as-built surveys.					
EDUCATION (Degree, Year, Specialization) To assist the reviewer of this questionnaire, a brief one-page professional vita is provided at the end of this page for Richard R. Casteel.					
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS REGISTRATION (Type, Year, State)					

PRO	FFC	ION	AII	ITAE

Richard R. Casteel, P. S.

Survey Crew Leader

Years of Experience with MSES: 24 Years of Experience with Other Firms: 2

Education

- A. S., Land Surveying, Glenville State College, 1983
- A. S., Forestry, Glenville State College, 1983

Professional Registrations/Certifications

Professional Surveyor, West Virginia, Ohio, Kentucky, Pennsylvania

Wetland Identification - U. S. Army Corps of Engineers Training

Hazardous Waste Operator - OSHA

Hazardous Waste Supervisor - OSHA

Professional Organizations

West Virginia Association of Land Surveyors, Chapter Representative, Vice President,

President, currently immediate Past President

American Congress on Surveying and Mapping

Member Ethics Board, West Virginia State Board of Land Surveyors

Past Work History

Mountain State Surveying

Project Management	Regulatory Interaction
Phase I and II Investigation	Computer Modeling
Data Base Systems	Property Evaluation
Species Identification	Mapping
Site Surveys	QA/QC Inspection & Compliance
Sampling and Data Collection	Job Costing
Wetlands	Site Development
Project Support	Transportation
Recreation	Flood Plain
GPS Surveys	GIS Surveys/Mapping
E-911 Surveys	Civil/Architectural Support

MCFCC	meultante	Tuc	
17.2 L P.L. L. J. C. U	rreduction.	21000	$rac{1}{2} 273, 325, 212, 29, 2727, 213, 224, 233, 234, 244, 244, 244, 244, 24$

13a.PERSONAL HISTORY STATEMI LANDFILL CLOSURE DESIGN (na		work) (Furnish complete data b	
	YEARS OF EXPERIENCE		
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE WITH MSES:	YEARS OF EXPERIENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPERIENCE:
Cottrill, Sharon R. BS	29	4	29
Land Planner	***************************************		
Ms. Cottrill will be the Project information to develop readable, design drawings and plans. Ms. Cintegral part of this Landfill Clos drafting documents.	usable, and unders Cottrill and her staf ure Project. She w	andable site mapping and f of seven (7) CADD drafte	construction ers will be an
EDUCATION (Degree, Year, Specializ To assist the reviewer of this que end of this page for Sharon R. Co	stionnaire, a brief	one-page professional vita	is provided at the
MEMBERSHIP IN PROFESSIONAL (REGISTRATION (Type	, Year, State)

	PROFESSIONAL VITAE
Sharon Reeves Cottrill Land Planner	
Years of Experience with MSES: 29	Years of Experience with Other Firms: 4
Education	
B. S. Landscape Architecture, We	st Virginia University (Cum Laude), 1976
Professional Organizations	
West Virginia Society of Landscap	pe Architects
Past Work History	
CNG Transmission Corporation	
Experience Summary	
☐ Project Management	☐ Species Identification
☐ Data Base Systems	☐ Computer Modeling
☐ CAD/Intergraph/CAM	☐ Illustrations
☐ Regulatory Interaction	☐ Job Costing
☐ Specification Development	☐ Mapping
☐ Land Planning	☐ Site Development
☐ Code Compliance	☐ Architectural Support
☐ Civil Support	☐ E-911 Mapping
GIS Mapping	GPS Data Management
☐ Data Processing	☐ 911 Re-addressing
☐ ArcInfo	☐ ArcView

13a.PERSONAL HISTORY STATEME LANDFILL CLOSURE DESIGN (nar							
	YEARS OF EXPERIENCE						
NAME & TITLE							
(Last, First, Middle Int.)	YEARS OF EXPERIENCE WITH MSES:	YEARS OF EXPERIENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPERIENCE:				
Rine, Lawrence M. BS, BS Principal and Quality Assurance/Quality Control Manager	33	14	33				
Brief Explanation of Responsibilities:							
At MSES, the accuracy and quality of work are taken very seriously. An MSES senior/principal is assigned as the Project QA/QC Officer for all of MSES' projects. Mr. Rine has performed as MSES' QA/QC Officer for many of the landfill projects undertaken by MSES to date. The assigning of a senior corporate officer ensures that the scheduling and the budget dollars needed to accomplish a project are strictly adhered to.							
EDUCATION (Degree, Year, Specializa	ntion)						
To assist the reviewer of this question of this page for Lawrence M.		one-page professional vita	a is provided at the				
MEMBERSHIP IN PROFESSIONAL C	PRGANIZATIONS	REGISTRATION (Typ	e, Year, State)				

Lawrence M. Rine

Principal and Quality Assurance/Quality Control Manager

Years of Experience with MSES: 33 Years of Experience with Other Firms: 14

Education

B. S. Mechanical Engineering, West Virginia Institute of Technology 1969

B. S. Mining Engineering, West Virginia Institute of Technology 1970

Masters Study, Environmental Engineering, Cornell University 1973

Professional Registrations/Certifications

Certified Monitoring Well Designer and Installer - WVDEP

Licensed West Virginia Underground Storage Tank Closure/Installation Specialist

Class I Certified Public Water Supply Operator, West Virginia

Class II Certified Wastewater Treatment Plant Operator, West Virginia

Certified Commercial Applicator, West Virginia and Pennsylvania

Radiation Safety Officer - NRC

Certified Asbestos Inspector/Manager/Planner/Clearance Air Monitor - WVBOH

Licensed Remediation Specialist - WVDEP

Certified Mineral Appraiser - U. S. Army Corps of Engineers

Member State School Building Authority - Indoor Air Quality Committee

Geosynthetic Accreditation Institute - Clay & Geo Synthetic Liners

Professional Organizations

West Virginia Independent Oil and Gas Association (Environmental Committee Member)

Virginia Independent Oil and Gas Association (Association's Outstanding Member, 1990)

Pennsylvania Independent Oil and Gas Association

National Society of Professional Engineers

West Virginia Society of Professional Engineers, T. Moore Jackson Chapter

West Virginia Surface Mine and Reclamation Association

Past Work History

CNG Transmission Corporation

Job Costing		Waste Management/Minimization
Management		Hazardous Waste Management
Groundwater Modeling/Monitoring		Asbestos Assessment
Earth Sciences		Lead Base Paint Assessment
Risk Assessment/Analysis	ū	NORM Assessment
Regulatory Interaction		Brownfields Specialist
Economic Feasibility		Mapping
Phase I/II Investigation		Noise Assessment
Remediation (Design and Permitting)		SARA Title III
RCRA Waste Units		Specification Development
Drilling Programs		Environmental Impact Statements
Bioremediation		Data Processing
Sampling/Laboratory Programs		Public Mtg. & Proj. Explanation
Property Evaluations		QA/QC Inspection & Compliance
NPDES Permitting	O	Architectural Support
Municipal Engineering		Radon
Code Compliance	0	Water/Wastewater Systems
F_011 Systems		GIS Systems/Data Management

13a.PERSONAL HISTORY STATEME LANDFILL CLOSURE DESIGN (nar			
LANDFILL CLOSURE DESIGN (Hai	ne type of design of v	YEARS OF EXPERIENCE	
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE WITH MSES:	YEARS OF EXPERIENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPERIENCE:
Saas, Louis P., Jr. AS, BS	11	27	11
Project Engineer			
Brief Explanation of Responsibilities:		1	
Mr. Saas has a diverse background	l in construction do	cument preparation and th	e oversight of
construction activities. He will be	——————————————————————————————————————		
contractor is accomplishing the co		osure cap within the design	<u>n parameters</u>
accepted by MSES and the WVD	<u>EP.</u>		
EDUCATION (Degree, Year, Specializa	ntion)		
To assist the reviewer of this questend of this page for Louis P. Saas		one-page professional vita	a is provided at the
MEMBERSHIP IN PROFESSIONAL C	RGANIZATIONS	REGISTRATION (Typ	e, Year, State)

PRA	FF	CC	In	NA	7	TTTA	\boldsymbol{F}
	8 1 2 21			/ ¥ /*		'	8 2

perience with Other Firms: 27
ute of Technology - 1971 spondence School (ICS) - 1989
nia
 □ Regulatory Interaction □ Noise Assessment □ Waste Management/Minimization □ Life Safety Codes □ Risk Assessment/Analysis □ Job Costing □ Property Evaluation □ Specification Development □ QA/QC Compliance □ Sampling Programs □ Environmental/Architectural Support
ti s

13a.PERSONAL HISTORY STATEME LANDFILL CLOSURE DESIGN (nan					
	YEARS OF EXPERIENCE				
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE WITH MSES:	YEARS OF EXPERIENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPERIENCE:		
Wyont, Richard A. BA	15	23	15		
Senior Environmental Specialist					
Brief Explanation of Responsibilities:					
Mr. Wyont has an extensive backy	ground in construc	tion monitoring and cons	truction QA/		
QC. He will be part of the day-to-c	**	-			
with the design drawings, standard	ds, specifications,	and conditions set forth i	n the landfill		
closure cap contract.					
EDUCATION (Degree, Year, Specializa	tion)				
To assist the reviewer of this ques end of this page for Richard A. W		ne-page professional vita	is provided at the		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS REGISTRATION (Type, Year, State)					

Richard A. (Rick) Wyont

Senior Environmental Specialist

Years of Experience with MSES: 15 Years of Experience with Other Firms: 23

Education

B. A. Business Administration, Morris Harvey College, 1966-1970 Marshall University, 1964-1966 (No Degree) Haliburton Energy Institute

Professional Registrations/Certifications

Certified Monitoring Well Designer and Installer - WVDEP
Licensed Asbestos Inspector and Clearance Air Monitor - WV Bureau of Health
Hazardous Waste Operator - OSHA
Hazardous Waste Supervisor - OSHA
H₂S Certified
First Responder First Aid with CPR

Past Work History

CNG Producing Company
Sonat Exploration
Panhandle Eastern Pipeline Company
Spartan Gas Company
Ravenscliff Development Company

Job Costing	Property Evaluation
Project Management	Waste Management/Minimization
Natural Gas Pipeline Construction Safety	Hazardous Waste Management
Natural Gas Well Construction Safety	Asbestos Assessment
Regulatory Interaction	Lead Base Paint Assessment
Economic Feasibility	Health & Safety Plan Compliance
Phase I/II Investigation	Specification Development
RCRA Waste Units Assessment	Noise Surveys
Drilling Programs	Sampling and Data Collection
Sampling/Laboratory Programs	QA/QC Inspection and
Code Compliance	Compliance
Hydrostatic Testing of Pipelines	H ₂ S Training Presentations

13a.PERSONAL HISTORY STATEME LANDFILL CLOSURE DESIGN (na			
		YEARS OF EXPERIENCE	
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE WITH MSES:	YEARS OF EXPERIENCE WITH OTHER FIRMS:	YEARS OF LANDFILL EXPERIENCE:
Barberio, Joseph BS	4	34	4
Construction Engineer			
Brief Explanation of Responsibilities:			
Mr. Barberio has many years o	f on site constru	rtion inspection experien	ce for many
diversified earth-moving projects.			
Team, to assure that the contractor			
by the landfill closure cap constru	iction design, plan	s, specifications, and cont	ract.
EDUCATION (Degree, Year, Specializ	otion)		
EDUCATION (Degree, Tear, Specializ	ation)		
To assist the reviewer of this que	stionnaire, a brief	one-page professional vita	is provided at the
end of this page for Joseph Barbe		F0- F	.
one of this page for socopii baroc			
MEMBERSHIP IN PROFESSIONAL (ORGANIZATIONS	REGISTRATION (Typ	e, Year, State)
		Security	

Joseph Barberio

Construction Engineer

Years of Experience with MSES: 4 Years of Experience with Other Firms: 34

Years of Direct Natural Gas Industry Experience: 32

Education

B. S. Engineering Technology, Fairmont State, 1974

Appalachian Underground Corrosion Short Course, WVU, Morgantown, WV

Eastern Gas Compression Roundtable - WVU, Morgantown, WV

International School of Construction Estimating - New Orleans, LA

Fisher Valve Engineering Seminar - Marshalltown, IA

ASME Pump & Valve Selection - Chicago, IL

McAuto Pipeline Training Seminar - St. Louis, MO

ASME Piping Design and Stress Analysis - Colorado School of Mines, Golden, CO

FERC Natural Gas Pipeline Environmental Compliance Workshop, Chicago, IL

West Virginia and EPA Approved Clearance Air Monitor Courses - 2007

West Virginia and EPA Approved Asbestos Inspector Courses - 2005-2007

Certified CQA Geosynthetic Materials and Compacted Clay Liner Inspection Course

Tensar Earth Technologies, Inc. Ground Improvement Technologies Seminar

Past Work History

Consolidated Gas Supply Corporation/CNG Transmission/Dominion Transmission

Cathodic Protection Systems	GPS Surveys
Job Costing	Compressor Station Construction
Project Management	Asbestos Assessments
Earth Sciences	Phases I/II Investigations
Safety for Pipeline Installation	Materials Handling
Trenching Safety	Sampling/Laboratory Programs
Hydrostatic Testing of Pipeline	Safety Training (Pipeline Construction)
Regulatory Interaction	Lockout/Tagout for Pipeline/
•	Compressor Station Construction

14. PROVIDE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN THE PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE THIS PROJECT (name project)
CITY OF CLARKSBURG LANDFILL CLOSURE REQUEST FOR QUOTATION DEP 14706
EaglePoint 2009 Q3 Civil Design Software
Carlson Software Civil Design and SURVCADD 2009
SEDCAD 4
HELP 3
SMI – Data Collection and Transfer
TRAVERSEPC – Data COGO
SURVCADD – Data Transfer, COGO Procedures, Civil Tools, Volume Tools
SOLO OFFICE – GPS Transfer and Correction
AUTOCADD 2009 and 2010
ARCINFO 9.3
AUTOCAD MAY 3D 2010
ARCVIEW GIS 9.3
ARCVIEW 3D, Spatial, Streetmap, Network, TASC Tracking Analysis, and Geoprocessing Extensions
Visual MODFLOW/MODPATH/MT3D/RT3D/WINPEST Groundwater Modeling Software
WINLOG Boring and Well Log Software

Clarksburg, WV Allied 2 12 th Fairm Hazardous Waste Cullet Pile On-site In-Situ Closure Williamstown, WV Closure of Industrial Solid Waste and Sludge Landfill 222 V Clarksburg, WV Clarksburg, WV Fairm Fentor 700 F Williamstown, WV	and Commerce Street sburg, WV 26070	Certification Design and Construction Certification Design, Construction Permitting, Groundwater Characterization, 30 Years Monitoring Design, Construction Permitting, and Groundwater Characterization	\$600,000 , \$3,280,000	Design 95% 100% Complete (Groundwater Monitoring Ongoing) Design 100% Construction began, firm now in Ch. 7 bankruptcy.
Clarksburg, WV Clark Jessie Run Refuse Area Cap Jane Lew, WV Hazardous Waste Cullet Pile On-site In-Situ Closure Williamstown, WV Closure of Industrial Solid Waste and Sludge Landfill 222 V Clark Pentor 700 F Williamstown, WV	sburg, WV 26301 d Waste, Inc. Street nont, WV 26554 on Art Glass Company Elizabeth Street amstown, WV 26187 er Fibreboard pany and Commerce Street	Certification Design and Construction Certification Design, Construction Permitting, Groundwater Characterization, 30 Years Monitoring Design, Construction Permitting, and Groundwater Characterization	\$600,000 , \$3,280,000	Design 95% 100% Complete (Groundwater Monitoring Ongoing) Design 100% Construction began, firm now in Ch. 7 bankruptcy.
Clarksburg, WV Clark Jessie Run Refuse Area Cap Jane Lew, WV Hazardous Waste Cullet Pile On-site In-Situ Closure 222 V Clark Fairm Fento 700 F	sburg, WV 26301 d Waste, Inc. Street nont, WV 26554 on Art Glass Company Elizabeth Street	Certification Design and Construction Certification Design, Construction Permitting, Groundwater Characterization, 30	\$600,000 , \$3,280,000	Design 95% 100% Complete (Groundwater Monitoring Ongoing)
Clarksburg, WV Clark Jessie Run Refuse Area Cap Allied 2 12 th	sburg, WV 26301 d Waste, Inc.	Certification Design and Construction		_
New C&D Landill 222 V	1			15001611 7570
City	of Clarksburg	Design and Construction	\$25,000	Design 95%
Closure RR2	lowfill Landfill, Inc. Box 68 geport, WV 26330	Design and Construction Certification	\$3,200,000	Design and Construction 90%
Modification RR5	Grading, Inc. Box 559 sburg, WV 26301	559 Design		Design 10%
Modification RR2	lowfill Landfill, Inc. Box 68 eport, WV 26330	Design	\$125,000	Design 95%
New Disposal Cell RR5 I	Grading, Inc. Box 559 sburg, WV 26301	Design and Construction Certification	\$2,200,000	Design 50%
New Disposal Cell RR2 I	owfill Landfill, Inc. Box 68 eport, WV 26330	Design and Construction Certification	\$2,500,000	Design 50%
ASSOCIATED WITH OR RI PROJECT NAM NAME, TYPE AND LOCATION		NATURE OF YOUR FIRM'S RESPONSIBILITY		PERCENT COMPLETE

	ACTIVITIES ON WHICE LANDFILL CLOSURE			A SUB-CONS	SULTANT TO OTHERS
PROJECT NAME, TYPE, AND LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME AND ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST:	
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY
MSES does no	Consultants, Inc. is t use sub-consultant	the prime co	onsultant for all ses are from MS	of its landf ES' full-tin	ill projects, and ne in-house staff.
			-		

17. COMPLETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD (List 5 to 7)						
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)		
Dola Reclamation Coal Refuse Area Cap Using SPF Dola, WV	Allied Waste, Inc. 2 12 th Street Fairmont, WV 26554	\$2,000,000	2007	YES		
Martinlea Reclamation Coal Refuse Area Cap Fairmont, WV	Allied Waste, Inc. 2 12 th Street Fairmont, WV 26554	\$1,000,000	2004	YES		
Municipal Solid Waste Phase 6A New Disposal Cell Construction Meadowfill Landfill	Meadowfill Landfill, Inc. RR2 Box 68 Bridgeport, WV 26330	\$2,500,000	2008	YES		
Municipal Solid Waste Phase 5B New Disposal Area Meadowfill Landfill	Meadowfill Landfill, Inc. RR2 Box 68 Bridgeport, WV 26330	\$2,500,000	2006	YES		
Municipal Solid Waste Phase 5B New Disposal Cell Construction Meadowfill Landfill	Meadowfill Landfill, Inc. RR2 Box 68 Bridgeport, WV 26330	\$2,500,000	2004	YES		
Municipal Solid Waste Phase 4A New Disposal Cell Construction S&S Landfill	S&S Grading, Inc. RR5 Box 559 Clarksburg, WV 26301	\$2,000,000	2007	YES		
Municipal Solid Waste Phase 3D New Disposal Cell Construction S&S Landfill	S&S Grading, Inc. RR5 Box 559 Clarksburg, WV 26301	\$2,000,000	2005	YES		
Municipal Solid Waste Phase 3C New Disposal Cell Construction S&S Landfill	S&S Grading, Inc. RR5 Box 559 Clarksburg, WV 26301	\$2,000,000	2004	YES		

18. COMPLETE	ED WORK WITH	HIN LAST 5 YEARS IN	WHICH YO	OUR FIRM HAS BEE	EN A
SUBCONSULT	ANT TO OTHE	R FIRMS (INDICATE PI	HASE OF V	VORK WHICH YOU	R FIRM WAS
RESPONSIBLE) LIST 5 TO 7.				
PROJECT	NAME AND	ESTIMATED	YEAR	CONSTRUCTED	FIRM ASSOCIATED
NAME,	ADDRESS	CONSTRUCTION		(YES OR NO)	WITH
TYPE AND	OF OWNER	COST OF YOUR			
LOCATION		FIRM'S PORTION			The state of the s
			i		
MACOTEC A	Managaltanta I	(na is tha nuima san	aultant fo	w all of its landfi	Il projects and
MISES	Consultants, 1	nc. is the prime con	SUITANTE IL		u projects, and
does not	use sub-cons	ultants. All services	are from	i MSES' full-time	e m-house staff.

	,				
			1		

	<u> </u>				

	1		I		

19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the WV Department of Environmental Protection.						
Questionnaire, MSES Consultants, information regarding our corporate p	andfill Closure Consultant Qualification Inc. (MSES) has prepared supplemental rofile, capabilities, and personnel education, experience. This supplemental information is tionnaire.					
20. The foregoing is a statement of facts						
Signature: Title: President	Date: <u>August 12, 2009</u>					
Printed Name: Lawrence M. Rine						
Name. <u>Lawrence in Mile</u>						

EXPRESSION OF INTEREST

REQUEST FOR QUOTATION – DEP14706
WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
LANDFILL CLOSURE CONSULTANT QUALIFICATION QUESTIONNARIE
CITY OF CLARKSBURG LANDFILL CLOSURE PROJECT

QUESTIONNAIRE ITEM 19 SUPPLEMENTAL INFORMATION



MSES consultants, inc.

Clarksburg, West Virginia

CONTENTS

- 1 INTRODUCTION

 2 QUALIFICATIONS AND TECHNICAL EXPERTISE
- MANAGEMENT AND STAFFING CAPABILITIES
- 4 SUPPORT SERVICES
- 5 RELATED PRIOR EXPERIENCE
- 6 CONFIRMATIONS

MSES CONSULTANTS, INC. - THE FIRM

MSES Consultants, Inc. is a multi-disciplinary engineering, solid waste management, design, environmental, and project management firm, headquartered in Clarksburg, West Virginia. We have amassed 33 years of successful project experience, serving private and public clients since our initial founding as a small, 3-person environmental consulting firm in 1976. MSES expanded rapidly to become a provider of total engineering, solid waste management, design, and environmental services by the year 1978, and we have seen our ranks swell, with a current professional staff of 102, including 4 Registered Architects, 12 Registered Engineers, 2 Registered Structural Engineers, 2 Certified Industrial Hygienists, Fire Safety Specialist, Life Safety Specialist, ADA Compliance Specialist, 6 Professional Land Surveyors, and a diverse roster of professionals, scientists, biologist, geologist, hydrogeologists, technicians, and support personnel.

MSES Consultants, Inc. has completed more than 12,479 assignments to date. We have been heavily focused on the specific needs of the waste industry since our founding in 1976, and many of our projects have involved studies, designs, inspections, geotechnical investigations, assessments and reviews, environmental sampling and analysis, synthetic liner systems, groundwater/hydrogeologic programs and modeling, stormwater management, sanitary, stormwater and leachate system design, utility analysis, property evaluations and appraisals for existing proposed landfill sites, and landfill closures throughout West Virginia and the eastern and mid-Atlantic regions of the United States. MSES has become sought after by many public and private clients for the permitting, design, construction of new facilities, upgrades, and closures of landfills, both solid and hazardous waste, due to the breadth of our technical and professional services, the efficiency of our operations, and our unique status as a single-source consultant for all services required to successfully complete our client's projects.

MSES CONSULTANTS, INC. AND WASTE MANAGEMENT

Since its inception in 1976, MSES Consultants, Inc. has developed and maintained an intimate connection with many private and public waste management entities within West Virginia. One of the unique factors that has prompted our knowledge of and responsiveness to the needs of the waste industry is the presence of former Public Service District, City Engineer, West Virginia and Kentucky Department of Transportation, electric company, and natural gas company employees among our ranks of seasoned professionals.

In addition to our familiarity with waste management engineering needs, MSES has benefitted from the national and international expertise of various professionals among our ranks who have worked for such diverse entities as CH2M Hill, ERM Midwest, Union Carbide Corporation, and West Virginia University. These key employees contribute a wealth of knowledge and a breadth of experience that can often be difficult to match.

In addition to employee experience, another factor for MSES' continued success is the unusual degree of longevity and company loyalty among our personnel. Our many long-term and repeat clients are appreciative of the continuity that this affords, and are refreshed with the degree of familiarity and prior knowledge with which each subsequent project is met. It is this unique combination of knowledgeable, experienced, talented, and devoted principals and employees that has brought MSES Consultants to the forefront as a provider of total engineering, environmental, planning, and management services for the solid waste industry.

DEPTH OF PERSONNEL

MSES Consultants, Inc. maintains a staff of highly-trained and experienced personnel, including all of the technical disciplines necessary to fully staff projects of all sizes and types. Our personnel demonstrate the education and experience required to accommodate the engineering and planning needs for the site characterization study, leachate management, landfill closure cap design, and permitting for City of Clarksburg's closed MSW Landfill.

Our staff's stable employment record enables the firm to assemble project teams that have worked together before, and that possess a good knowledge of how individual strengths fit together to form an effective team. The firm is able to assemble teams composed of individuals whose capabilities are tested and well known to our establishment. We assign senior staff to management roles on all our projects.

The multi-disciplinary depth of our staff is reflected by the Professional Staff Chart, found on Page 1-4, while a listing of current and pending professional registrations is provided by the chart located on Page 1-5. The depth of our staff in each category permits performance of large assignments, as well as simultaneous performance of many jobs that do not require full-time commitment of individuals. Our experience and diverse staffing capabilities allow us to draw upon specialized personnel to facilitate unique project requirements.

The wide variety of services that MSES Consultants, Inc. provides makes it possible for clients to establish a working relationship with us as a single-source consultant. We are organized to ensure that all clients are provided with a high level of personal and professional attention.

MSES CONSULTANTS AND CITY OF CLARKSBURG LANDFILL CLOSURE CAP DESIGN

MSES believes we are a firm which offers a broad range of resources and expertise, whose close proximity to The City of Clarksburg's Landfill and our extensive knowledge of the City of Clarksburg's Landfill can be of particular value in accomplishing the Landfill's closure cap design goals and objectives. We are confident MSES will prove to be an extension of the Landfill's closure cap design planning efforts, enhancing its vision on a long-term basis. As many of our local and regional clients have found - we are their best kept secret.

1 - 3

PROFESSIONAL STAFF

MSES Consultants, Inc. employs a professional staff of multi-educated, full-time professionals with experience in numerous disciplines. The MSES staff consists of:

	Number of		Education	
Category	Employees	Associate Degrees	Bachelor Degrees	Advanced Degrees
Administrative	4	2	2	
Chemical Engineer	i	<u> </u>	1	1
Chemist	1		1	w. y.
Civil Engineer	3		3	
Structural Engineer	2	w.m	2	2
Resident Construction Engineer	2	1	1	~~
CAD/Design Draftsman	2	- <u>-</u>	2	Pr-10
CAD/Design Draftsman	4	3	1	 -
Environmental Geographer (GIS)	2	m.ev	$\hat{2}$	
Ecologist (Gro)	ī	m =+	1	1
Meteorologist	ì		t	***
Electrical Engineer	3	197.As	3	
Geologist	1		1	
Hydrologist	1	~~	ì	1
Architect	Š		5	
Landscape Architect	1	***	ì	w# bu
Environmental Engineer	$\hat{2}$	an we	2	1
Mechanical Engineer	2		2	***
Mining Engineer	2		$\frac{\tilde{2}}{2}$	1
Industrial Engineer	1	***	ī	·
Sanitary Engineer	2		2	
Soil Engineer	2		2	
Transportation Engineer	ĩ		1	
Certified Industrial Hygienist	i	w m	i	
Certified Safety Professionals	2		2	15.76
Safety Engineer	ĺ į̃		1	1
Land and Right-Of-Way Agents	3	~-	3	
Paralegal	2		2	
Surveyors	6	4	2	
Economist	l ĭ	· 	l -	1
Forensic Biologist	l i	M-W-	l i	
Biologist] 3		. 2	2
Botanist	l ĭ		1	1
Engineering Technicians	4	2	2	, m.m.
Survey Support	12	4	_ 1	

MSES' professionals are supported by the latest in field data collectors, computers and computer software, electronic and satellite survey, computer-aided drafting and design, and our in-house graphic and reproduction center.

PROFESSIONAL REGISTRATIONS

MSES has, since 1976, provided its professional services in seven eastern states surrounding West Virginia. Provided is a listing, by state, of the professional disciplines and type of registration per each state or national registry:

	MSES Staff Members Per State								
Discipline	wv	NY	PA	MD	VA	TN	KY	он	National
Surveyor	6	Pending	3	Pending	0	2	3	3	
Architects	4		4	4	4			4	
Engineers	3	1	2	1	3	0	3	3	
Civil Electrical	3	1	2	1	2	lĭ	1	2	
Mechanical	2	1	2	i	2	1	1	2	
Environmental	2	1	1		1	1	1	lî	
1	2	0	2	, ,	1	0	1	Ò	
Structural	1	0	1	1	1	Ö	1	Ιĭ	
Safety	-	0	1	1	1	0	l	;	
Mining	l	U	1	·	1	0	'	1 1	
Geologist	~~				1			***	
Asbestos				:					
Inspectors	4		0	.0	ł	0	0	1	
Samplers	4		0	0	1	0	0	1	
Planner	4		0	.0	1	0	0	1	
Manager	4		0	0	1	0	0	1	
Lead Risk Assessor	1							**	
Licensed Remediation Specialist	1	2	~~					4	
Underground Storage Tank									
Inspector	4	0	0	0	0	0	0	0	
Designer/Installer	2	0	0	0	0	0	0	0	
Certified Monitor Well Designer/Driller	4		2	0			0		
Certified Safety Professional	**							**	2
Certified Industrial Hygienist									2
Certified Landfill Manager - SWANA									4
Geosynthetic Accreditation Institute Clay & Geosynthetic Liners		N 00							6
NACE Certified									
Corrosion Technician			W.M.						3
Sr. Corrosion Technologist	· · ·				***				1
Internal Corrosion Technician									5

The term "pending" displayed under a given state indicates that members of MSES' staff have tested for the particular registration but results are not known. The symbol "--" displayed under a given state indicates that state has no registration program for the particular discipline.

OVERALL CAPABILITIES

MSES Consultants, Inc. is one of the largest West Virginia-owned and diversified consulting engineering, environmental, solid waste, and planning firms in the State. For over 33 years we have provided quality services to a wide range of public and private clients, with waste management (solid and hazardous waste) representing a significant portion of our past and present assignments.

Due to the many factors discussed previously, MSES is intimate with all aspects of landfill siting, closure, closure caps, feasibility studies, engineering design, and construction QA/QC, from site selection, subsurface investigations, hydrogeologic characterizations, environmental assessments, mapping and design to permitting disposal cell development, and closure planning, design and permitting. In addition, we are keenly aware of the many challenges and problems that may be inherent to these processes. The benefits of our experience and diligence are perhaps most effectively demonstrated by our large number of long term clients. For many, we have provided continuing services for multiple projects for more than 24 years.

In addition to our work within the State of West Virginia, MSES also has extensive experience throughout much of the eastern United States, having completed ambitious projects in states such as New York, Pennsylvania, Ohio, Maryland, Virginia, Kentucky, and Tennessee. Many among our staff maintain professional registrations in these states, where applicable, which are representative of a variety of disciplines (i.e., environmental services, engineering, surveying, remediation specialization, geology, etc.).

Relevant support facilities/equipment and references are outlined below. MSES is especially proud of its 22,000-square foot office facility, located on West Main Street in Clarksburg, West Virginia. We moved into our three-story office building in February 1997, and have found that its custom design by our in-house staff has been tailored perfectly to suit our ever-expanding physical and technological needs. We encourage representatives from the West Virginia Department of Environmental Protection to visit our facility, and to contact the references listed below to solicit first hand comments on our services.

SUPPORT FACILITIES

In order for a team to be effective, it must be supported by modern and extensive equipment, laboratory accommodations, and data processing resources. As a full service organization, MSES possesses the facilities necessary to support all aspects of its projects, from the collection of field and survey data, through the performance of physical/chemical sample collection and analysis, to the reduction, analysis, and final presentation of project data. State-of-the-art software is also used for complex modeling and data presentation, and the development of company-specific training modules and visual productions.

Field Equipment and Support Facilities

The firm maintains a large fleet of vehicles, and an extensive inventory of equipment for field sampling and other activities. These facilities are unique among consulting engineers and are integral to MSES, as our personnel perform the field sampling activities for all our projects.

Among MSES' field support equipment are numerous four-wheel drive vehicles, to ensure site access, and a flat-bottomed boat, for water column profiling and the collection of surface waters and sediment samples. MSES utilizes a portable hydraulically-powered drilling apparatus for subsurface sampling at sites with restrictive access and for areas known to be underlain by unconsolidated materials. We are also supported by a full array of automated and computer-compatible sampling devices, for the monitoring of leachate collection systems' inflow and infiltration (I&I) and the collection of stormwater samples, industrial discharges, air quality monitoring data, volatile to semi-volatile organics levels, and industrial hygiene related samples.

For those sites whose conditions mandate the use of heavier, more complex subsurface equipment, MSES maintains established relationships with various drilling companies throughout the eastern and mid-Atlantic regions of the country. However, even when these subcontractors are utilized, they work under the direction of MSES soils/geology supervisory professionals, who are responsible for sample collection, visual and physical classification of materials encountered, data reduction and interpretation, and preparation of computerized boring logs and field reporting.

Laboratories

MSES Consultants, Inc. maintains an in-house laboratory for corrosion needs and wet chemistry methods in the physicochemical analysis of soils, surface water, groundwater samples, and leachate samples. Additional samples may be analyzed by laboratory facilities with whom MSES has maintained established, long-term relationships, and which demonstrate special emphasis on the needs of the waste industry. Conversely, an alternate, contract-specified analytical laboratory may be utilized at the request of the client.

Surveying/Global Positioning Equipment

We utilize the most modern electronic devices for surveying activities, with an accuracy up to the first and second order. Survey data are logged in the field via state-of-the-art electronic equipment and downloaded into office computers and data plotters. In addition, we utilize global positioning equipment for certain categories of surveying. These devices are also electronically linked through special software to our plotting and design equipment.

Aerial Photography

All field survey and mapping techniques are performed by MSES personnel, with the only exception being aerial photography, when needed. MSES utilizes the services of two (2) firms for these particular projects with whom we have maintained professional rapport since the early 1980s.

Data Processing/Automated Drafting

MSES has a large number of Computer-Aided Design and Drafting (CADD) systems. We now have over 33 CADD units of various types and configurations in use daily on our projects. We utilize both AutoCADD and the more powerful Intergraph CADD units for design and data reduction and presentation. In addition, we have an in-house networked system of computers and processing equipment, with a fully networked array of programs to assemble and download data and manage tables, databases and spreadsheets. We are versed in Geographic Information Systems (GIS) methods, with expertise in ARC/Info and Small Worlds.

PROJECT TEAM CLIENT REFERENCES

United States Environmental Protection Agency, Region III

1650 Arch Street Philadelphia, PA 19103-2029 Mr. Tom Stolle Region III Brownfields Program Manager 215/814-3129

West Virginia Department of Environmental Protection

Office of Water and Waste Management 601 57th Street Charleston, WV 25304 Mr. Randolph Sovic Technical Analyst, Sr. 304/558-6350

United States Environmental Protection Agency, Region III

1650 Arch Street Philadelphia, PA 19103-2029 Mr. Andrew Kreider Region III Brownfields Project Manager 215/814-3301

West Virginia Department of Environmental Protection

Office of Water and Waste Management 601 57th Street
Charleston, WV 25304
Mr. Joseph M. Hickman
Assistant Chief, Inspectors
304/558-2505

West Virginia Department of Environmental Protection

Office of Water and Waste Management Solid Waste Management Section 601 57th Street Charleston, WV 25304 Mr. Sudhir D. Patel Permitting Supervisor 304/926-0499

West Virginia Department of Environmental Protection

Office of Water and Waste Management Landfill Closure Assistance Program 2031 Pleasant Valley Road Fairmont, WV 26554 Mr. Paul Benedum Engineer 304/368-3960

West Virginia Department of Environmental Protection

Office of Water Resources 2031 Pleasant Valley Road Fairmont, WV 26554 Mr. Brad Swiger Enforcement Supervisor 304/368-3960

U. S. District Court Northern District of WV

P. O. Box 791 Wheeling, WV 26003 The Honorable Frederick P. Stamp, Jr. Federal District Judge 304/233-1120

West Virginia Department of Environmental Protection

Office of Water and Waste Management Solid Waste Management Section 601 57th Street Charleston, WV 25304 Mr. Richard L. Pino Environmental Resources Assistant to the Chief Inspectors 304/926-1693

West Virginia Department of Environmental Protection

Office of Water and Waste Management Solid Waste Management Section 601 57th Street Charleston, WV 25304 Ms. Leslia Oaks Engineer 304/926-0499

West Virginia Department of Environmental Protection

Office of Air Quality 601 57th Street Charleston, WV 25304 Ms. Lucy Pontiveros Assistant Chief, Hazardous and Solid Waste Management Unit 304/926-0499

Fayette County Community Resource Team

Fayette County Courthouse Fayetteville, WV 25840 Mr. David Pollard Community Resource Coordinator 304/574-4258

Solid Waste Management Board

601 57th Street Charleston, WV 25304 Mr. Richard Cooke Director 304/9260499

Waste Management, Inc.

1 Connie Street North York, Ontario, Canada MGL2H8 Mr. John McGarvey Controller 416/243-7000

Meadowfill Landfill, Inc.

Route 2, Box 68 Bridgeport, WV 26330 Mr. Doug Hall District Manager 304/842-2784

Cytec Industries, Inc.

1 Heilman Avenue Belmont, WV 26134 Mr. John Pitner Special Projects Engineer 304/665-2422

City of Clarksburg

222 West Main Street Clarksburg, WV 26301 Mr. Martin Howe City Manager 304/624-1677

City of Wellsburg

200 Main Street Wellsburg, WV 26070 Mr. Patrick Comiskey City Manager 304/737-2104

City of Clarksburg

222 West Main Street Clarksburg, WV 26301 Mr. Frank Scarcelli Public Works Superintendent 304/624-1612

Allied Waste, Inc.

#2 12th Street Fairmont, WV 26554 Mr. Ron Levine Special Waste Manager 304/366-1580

Harrison County Solid Waste Authority

301 West Main Street Clarksburg, WV 26301 Mr. Richard Barnett Manager 304/624-8500

Banner Fibreboard

22nd and Commerce Streets Wellsburg, WV 26070-0390 Mr. Dick Laughlin President 304/737-3711

The Fenton Art Glass Company

700 Elizabeth Avenue Williamstown, WV 26187 Mr. George Fenton President 304/375-6122

City of Clarksburg

222 West Main Street Clarksburg, WV 26301 Mr. Anthony Bellotte Compost Facility Supervisor 304/624-1611

Dominion Transmission, Inc.

445 West Main Street Clarksburg, WV 26301 Mr. Mark L. Reeser Environmental Services Manager 304/627-3880

City of Clarksburg

Wastewater Treatment Plant 222 West Main Street Clarksburg, WV 26301 Mr. Bill Goodwin Plant Superintendent 304/624-1626

Novelis Corporation

Fairmont, WV 26554 Mr. Paul Zanussi Safety & Environmental Manager 304/367-5200

Robinson & McElwee

400 Fifth Third Center 700 Virginia Street, East Charleston, WV 25301 Mr. David Yaussy Senior Environmental Attorney 304/347-8358

Steptoe and Johnson

P. O. Box 2190 Clarksburg, WV 26302 Mr. W. Henry Lawrence Senior Environmental Attorney 304/624-8186

Harrison County Commission

301 West Main Street Clarksburg, WV 26301 Mr. Frank T. Angotti Commission President 304/624-8500

Waste Management of WV, Inc.

7 Spring Street Charleston, WV 25302 Mr. Craig Arnold Environmental Protection Manager 304/720-7617

Steptoe and Johnson

Chase Tower, Eighth Floor
P. O. Box 1588
Charleston, WV 25326-1588
Mr. Robert Pollitt
Senior Environmental Attorney
304/353-8137

Jackson & Kelly

1600 Laidley Tower Charleston, WV 25322 Mr. David Flannery Environmental Department Chairman 304/340-1017

Morgantown Industrial Park

Associates, L.L.C. 1000 Dupont Road Morgantown, WV 23505 Mr. Don Kuhns Manager 304/292-9453

3. Management and Staffing Capabilities

"TEAMING" WITH THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

MSES believes in the "Expanded Team" approach. We think that quality projects result from well-planned designs and continuous coordination between our staff (the Project Team) and the West Virginia Department of Environmental Protection (WVDEP) and the City of Clarksburg. We accomplish this by:

u	project and in all work development meetings.
0	Developing a Project Management Plan that will explicitly include all Team members in information exchange and in milestone product preparation.
	Setting standards for detail and production based explicitly on the needs of the WVDEP and City of Clarksburg and the closure cap design and permitting of City's Municipal Solid Waste Landfill.

PROJECT TEAM

The well-qualified and experienced individuals assigned to the MSES Team for this project are described below. The general qualifications and roles of key project management personnel are outlined below, and a description of key personnel by category is included at the end of this section.

Project Management

Given MSES' experience with projects of this type, the expertise and direction of three (3) principals/senior personnel are anticipated to ensure the scheduling and dedication of MSES' resources for the activities expected in conjunction with this proposal: Mr. John J. Keeling, PE, CIH, CSP, QEP, LRS, Principal-In-Charge; Mr. C. H. "Sam" Muncy, Jr., PS, PE, Senior Project Engineer; and Mr. L. M. Rine, BSME, QA/QC Officer.

Mr. John J. Keeling, PE, CSP, QEP - As Principal-In-Charge, Mr. Keeling will be the primary director of the Project Team. Mr. Keeling will coordinate project activities of the contributing staff, directly perform certain portions of the work, and coordinate project findings and results. He has thirty-five (35) years of professional experience in the private and public sectors, and an extensive background in all aspects of environmental engineering and compliance, safety and industrial hygiene, waste management, hydrogeology, and permitting issues. Mr. Keeling is a registered Professional Engineer in numerous states, a Certified Industrial Hygienist, a Certified Safety Professional, a Qualified Environmental Professional, and a Licensed Remediation Specialist for the State of West Virginia. He will be directly involved in the majority of the activities foreseen with this landfill closure project.

Project Management (continued)

Mr. C. H. "Sam" Muncy, Jr., BSCE, MSCE, PS, PE - Mr. Muncy will serve as Senior Project Engineer for the various tasks foreseen for this project. His expertise as a licensed land surveyor, multi-state registered Professional Engineer, Certified Landfill Manager (SWANA), and a Geosynthetic Accreditation Institute, certified in both clay and geosynthetic liners, his thirty-five (35) years of experience, and his extensive involvement with the waste management industry are unparalleled on both a local and regional basis. Mr. Muncy's knowledge of landfill engineering design, permitting, and applicable requirements, as well as his rapport with agency personnel, would greatly facilitate the feasibility study and master planning for the landfill closure cap design and permitting development. Mr. Muncy will coordinate master planning activities, and will directly perform the majority of those anticipated for the final report and associated tasks. He will also serve as the primary liaison between the WVDEP and City of Clarksburg and the MSES Project Team, and will be the day-to-day contact for prompt, knowledgeable, immediate response to client requests or concerns.

Quality Assurance Review - Lawrence M. Rine, BSME, MSES Principal, will provide project oversight to the project activities. Mr. Rine is one of MSES' most experienced staff professionals, with over thirty-nine (39) years of experience. Mr. Rine's knowledge of landfill engineering and waste management afford him the unique background and expertise to serve as the QA/QC Principal for the City of Clarksburg's landfill closure cap design and permitting. Mr. Rine is Geosynthitic Accreditation Institute, certified in both clay and synthetic liners, Certified Monitoring Well Designer and Installer, and Waste Manager.

Key Personnel Listing

The feasibility studies and master planning for the City of Clarksburg's MSW Landfill closure cap design and permitting development will require the efforts of a diverse group of professionals. A comprehensive listing of these individuals would prove unwieldy; therefore, the names and titles of project-specific key personnel from among MSES' 102-person professional staff are provided by the Key Personnel Listing table following this page. Found at the close of this section are brief one-page resumes, which highlight the education, experience, and expertise of various key individuals that may be assigned to this project.

Management and Staffing Capabilities

KEY PERSONNEL LISTING

Team Member	Discipline	Total Years Experience	Site Studies and Data Collection	Cap Design and Permitting
Management Team				
John J. Keeling, PE, CIH, CSP C. H. "Sam" Muncy, PS, PE	Managing Principal Senior Project Manager	35 35	•	*
Feasibility Study and Master P	lanning			·
Catherine R. Monahan, MSGS David W. Fisher Lori L. Steele, BS Kevin L. Williams, BS Rodney D. Kidd, BSCE Rex B. Tennant, II, BSCE W. C. Reinhart, BSCE Richard R. Casteel, PS Sharon R. Cottrill, BSLA	Geologist/Hydrogeologist Biologist/Wetlands Meteorologist/Air Civil/Environmental Engineer Civil Engineer/Infrastructure Environmental Chemist Civil Engineer/Liner System Survey/Mapping Drafting Coordinator	19 36 29 20 35 37 26 26 33	•	•
QA/QC	.:			
Lawrence M. Rine, BSME Louis P. Saas, BSEE Richard A. Wyont, B.A. Joseph A. Barberio, B.S.	Managing Principal QA/QC Engineer Construction QA/QC Construction Inspector	47 38 38 38 38	•	•

Although not specifically listed by the table, additional experienced support staff professionals and technicians may be used as required to satisfy the project schedule.

MEMBERSHIPS AND AFFILIATIONS

As listed by the following, members of MSES' professional staff actively participate in various public, professional, and service organizations and committees. For example, Mr. Lawrence M. Rine, Principal and President, was appointed to the West Virginia State School Building Authority's Indoor Air Quality Committee; Mr. John J. Keeling, Principal and Vice President, serves as Chairman of the Harrison County Local Emergency Planning Committee and City of Clarksburg Engineer; Mr. William L. Smith, Environmental Engineer, is a member of the WVDEP Office of Air Quality Regulatory Reform Work Group/Rewrite Committee; Mr. Hal George, Corrosion Engineer, assumes a leading role with the Western Pennsylvania and West Virginia Corrosion Control Committees; Ms. Catherine Monahan, Hydrogeologist, is a member of the USEPA-solicited TMDL (Total Maximum Daily Loading) Steering Committees for the Tygart and Cheat River Watersheds; Mr. Ron Cutlip, Senior Safety/Environmental Specialist, serves as Vice President of the American Society of Safety Engineers; Mr. Rick Casteel, Surveyor, is the immediate Past President for the West Virginia Association of Land Surveyors; and MSES has been sworn in as the City Engineer and Public Works Director for the City of Clarksburg, West Virginia.

In addition, Mr. C. H. "Sam" Muncy, Senior Project Engineer, serves regularly as guest lecturer for West Virginia University/School of Engineering coursework related to waste management, landfills, and their costs. He also instructs compost facility operator certification training courses, and is a past member of the Barbour County Solid Waste Authority. Of special note, Mr. Muncy and MSES Principal and President Mr. Lawrence Rine were appointed by Judge Frederick P. Stamp, Jr. of the U. S. District Court, Northern District of WV, to serve as Special Master in the civil action between a citizens' environmental group and an inactive solid waste facility in Braxton County, West Virginia. Their findings were presented to the Court and were used as a basis for the proper closure of the facility under the Landfill Closure Assistance Program (LCAP). Mr. Muncy and Mr. Rine both are still Special Masters assisting the U. S. District Court in landfill matters.

The involvement of our employees with these associations, as well as our project experience with Towns, Cities, and County, State and Federal agencies, has allowed MSES to remain abreast of changes in agency policies and the regulatory climate. In addition, these memberships allow for direct lines of communication with the various agencies, their staff, and the public at large, with MSES acting as a sounding board for new regulations and ideas, as well as offering our input regarding policy changes prior to their enactment. Many of these agencies have come to rely on MSES' multi-disciplinary expertise, and we welcome the opportunity to share the benefit of our knowledge and dedication with these groups.

Management and Staffing Capabilities

Quality Control

Quality control results primarily from the attention to quality given by each team member. Quality is a continuous, day-in and day-out attitude of the MSES staff, more so than a program. However, our attention to quality has also been developed in a program as follows:

Our Continuous Quality Improvement (CQI) Program

MSES has a firm-wide CQI program that all employees participate in every week. It develops effective problem identification and solving skills that apply to all of our projects. This program is monitored by managers throughout the firm to be sure that we are constantly improving our technical and management skills.

Our Continuous Quality Improvement (CQI) Program (continued)

Even more important, our CQI program engenders an attitude in all of the staff to look for ways and ideas to improve the quality and effectiveness on every assignment.

Project Management and Quality Assurance Plans

Every project includes a specific project management and quality assurance plan. This assures that our projects meet our standards for correct and effective projects.

Our Standards for Successful Projects

MSES has a stellar reputation among owners, regulators, and contractors for all phases of environmental compliance, for the development of corrective solutions and effective, complete, quality designs that can be executed with confidence. This reputation is the culmination of over 33 years of successful projects, founded upon our extensive environmental monitoring and compliance experience, our knowledge of jurisdictional protocol and applicable regulations, and our ability to develop corrective solutions, which not only satisfy regulatory requirements, but manage to do so in a cost-effective manner. We are proud of our accomplishments in the engineering and environmental arenas, and our ever-growing roster of satisfied repeat clients attests to our continued commitment to quality, dedication, and service.

MSES Consultants, Inc.
Professional Vitae

John J. Keeling, P.E., C.I.H., C.S.P., Q.E.P., L.R.S.

Principal and Project Manager

Years of Experience with MSES: 20 Years of Experience with Other Firms: 15

Education

B. S. Civil Engineering, University of Kentucky, 1974

Professional Registrations/Certifications

Registered Professional Engineer - West Virginia, Kentucky, and Pennsylvania

Certified Industrial Hygienist - American Board of Industrial Hygiene

Certified Safety Professional - Board of Certified Safety Professionals

Qualified Environmental Professional - Institute of Professional Environmental Practice

Licensed Remediation Specialist - West Virginia, New York, and Ohio

Certified Visible Emissions Observer - USEPA

Licensed Asbestos Inspector/Management Planner/Clearance Air Monitor - WVBOH and Ohio BOH

Underground Storage Tank Closure Specialist/Installer - WVDEP

Certified Monitoring Well Designer and Installer - WVDEP

Professional Organizations

American Society of Safety Engineers

American Industrial Hygiene Association

Air and Waste Management Association

Harrison County SARA Title III Local Emergency Planning Committee - Chairman

West Virginia Chapter of Air and Waste Management Association - Vice Chairperson

Past Work History

Union Carbide Corporation

Kentucky Department of Transportation

Job Costing		Air Emission Regulatory Compliance
Management		NPDES Permitting
Earth Sciences		Waste Management/Minimization
Risk Assessment/Analysis		Hazardous Waste Management
Regulatory Interaction		Air Emission Modeling
Economic Feasibility		Asbestos Assessment
Phase I/II Investigation	ū	Lead Base Paint Assessment
Remediation (Design and Permitting)		NORM Assessment
RCRA Waste Units		Brownfields Specialist
Drilling Programs		Health & Safety
Bioremediation		Noise Assessment
Geographic and Hydrologic Studies		Hydrologic and Hydraulic Analysis
Sampling/Laboratory Programs		SARA Title III
Air Permitting		Specification Development
Indoor Air Quality		Earth Sciences
Code Compliance		Environmental/Architectural Support
E-911 Systems		GIS Systems

Charles H. "Sam" Muncy, Jr., P.S., P.E.

Senior Project Engineer

Years of Experience with MSES: 19 Years of Experience with Other Firms: 16

Education

B. S. Civil Engineering, West Virginia University, 1974 M.S. Civil Engineering, West Virginia University, 1983

Professional Registrations/Certifications

Registered Professional Engineer - West Virginia, Pennsylvania, Florida, North Carolina, Ohio, and Virginia

Professional Surveyor - West Virginia

Certified Compaction Technician - West Virginia Department of Highways

Radiation Safety Officer - NRC

Licensed Remediation Specialist - New York, Ohio, West Virginia

Certified Monitoring Well Designer and Installer - WVDEP

Certified Landfill Manager - SWANA

Geosynthetic Accreditation Institute - Clay & Geo Synthetic Liners

Professional Organizations

American Society of Civil Engineers Solid Waste Association of North America Barbour County, WV Solid Waste Authority - Member Gundle Liner Seminars and Workshops

Past Work History

Joyce Engineering Harman Construction, Inc. Southern Ohio Coal Company American Electric Power Service Corporation Mountain State Surveying

Project Management	Risk Assessment/Analysis
Regulatory Interaction	Phase I & II Investigation
Remediation (Design & Permitting)	RCRA Waste Units
Sampling/Laboratory Programs	Data Base Systems
Computer Modeling (H&H Studies)	Life Safety Codes
Specification Development	Job Costing
Property Evaluation	Site Surveys
Mapping	QA/QC Inspection & Compliance
Economic Feasibility Investigation	Structural
Soils Engineering	Earth Sciences
Storm Routing Studies	Geographic and Hydrologic Analysis
Land Planning	Site Development
Roadway/Highway	Subsurface Investigation
Bioremediation	NPDES Permitting
Erosion & Sediment Planning	Stormwater
Waste Management/Minimization	Civil/Architectural Support
Code Compliance	Structural/Architectural Support

Catherine R. Monahan

Geologist/Hydrogeologist

Years of Experience with MSES: 16 Years of Experience with Other Firms: 3

Education

B. S. Geology, Stockton State College, 1988

M. S. Geology, University of Massachusetts at Amherst, 1991

Professional Registrations/Certifications

Certified Monitoring Well Designer and Installer - WVDEP Wetland Identification - U. S. Army Corps of Engineers Training

Professional Organizations

American Geophysical Union National Ground Water Association Association of Ground Water Scientists and Engineers

Past Work History

University of Massachusetts at Amherst - Research Assistant

Project Management	Risk Assessment/Analysis
Regulatory Interaction	Phase I & II Investigation
Remediation (Design & Permitting)	RCRA Waste Units
Sampling/Laboratory Programs	Data Base Systems
Computer Modeling	Specification Development
Species Identification	Job Costing
Property Evaluation	Site Surveys
Mapping	Wetlands
Economic Feasibility	Soils Engineering
Earth Sciences	Site Development
Computer Programming	Brownfields Specialist
Stormwater Modeling	Evapotranspiration Modeling
Groundwater Modeling/Monitoring	Subsurface Investigation
Bioremediation	NPDES Permitting
Foundations	Code Compliance

David W. Fisher

Senior Biologist/Environmental Scientist

Years of Experience with MSES: 7 Years of Experience with Other Firms: 29

Education

B. S., Biology & Psychology, Salem College, 1972B. S. (Minor) Chemistry, Salem College, 1972Masters Program Marshall University, 1977 to 1979

Professional Registrations/Certifications

Permit Scientific Collection - WVDNR Certified Hunter Safety Instructor - WVDNR National Rifle Association - Master Gun Safety Instructor

Professional Organizations

Member Board of Directors, West Virginia Rifle and Pistol Association Chairman, Harrison County Solid Waste Site Committee Harrison County United Way - Funding Committee City of Salem - Councilperson

Past Work History

Sturm Environmental Services - Director of Laboratory Services

WV Department of Natural Resources, Water Resources Division - Aquatic Biologist and Section Head, Aquatic Biology Section

Aquatic Sampling/Identification	☐ Benthic - Sampling, Processing,
	Identification
NPDES Permitting	Risk Assessment/Analysis
Microbiological	Regulatory Interaction
Phase I/II Investigations	Database Systems
Bioassays	Data Processing
Species/Habitat Identification	☐ Computer Modeling
Bioremediation	Waste Impacts
Natural Sciences	Information/Aquatic Surveys
Sampling/Laboratory Programs	QA/QC Programs
Brownfields	Modeling
NACE Internal Corrosion	Mold and Fungi

	D	D		F	\boldsymbol{L}^{r}	C	C	T	A	٨	I)	1	r	T/	7	T	1	\boldsymbol{L}^{r}
4	_	n	* /	<i></i>	F 1.	٦.	•	,	,	/ 1	<i>/~</i>		8.	-				r.

		<i>.</i>	PROFESSIONAL VITAE				
Lori Stee Meteorol							
Years of	Experience with MSES: 17 Years of Exp	perie	ence with Other Firms: 12				
Education	on .						
В	. S., Meteorology, Pennsylvania State University,	198	0				
Professio	onal Registrations/Certifications						
C	ertified Visible Emissions Observer - USEPA						
Professio	onal Organizations						
W	Air and Waste Management Association West Virginia Chapter of the Air and Waste Management Association American Meteorological Society						
Past Wo	rk History						
С	H2M Hill						
Experier	ce Summary						
	Job Costing		Data Base Systems				
	Risk Assessment/Analysis		Computer Modeling				
	Regulatory Interaction		Air Emission Regulatory Compliance				
	Economic Feasibility		Waste Management/Minimization				
	Phase I/II Investigation		Air Emission Modeling				
	RCRA Waste Units		Brownfields Specialist				
	Sampling/Laboratory Programs	0	Health & Safety				
	Air Permitting	0	Certified Emission Statement				
	Precipitation Modeling		Modeling/Storm Predicting				

Kevin L. Williams

Project Engineer

Years of Experience with MSES: 5 Years of Experience with Other Firms: 15

Education

B. S., Civil Engineering, West Virginia Institute of Technology, 1986

Professional Registrations/Certifications

Certified Landfill Manager - Solid Waste Association of North America

Licensed Contractor - State of West Virginia

Operator Qualification - USDOT

Geosynthetic Accreditation Institute - Clay & GeoSynthetic Liners

Professional Organizations

West Virginia Society of Professional Engineers - T. Moore Jackson Chapter West Virginia Institute of Technology (WVU Tech) - Chairman Alumni Committee

Past Work History

West Virginia Department of Highways

Hope Gas, Inc.

Dominion Hope

Construction Inspection/Management	Pipeline Design/Construction
Project Management	Regulatory Interaction
Sampling Programs	Database Systems
Job Costing	Specification Development
QA/QC Inspection & Compliance	Property Evaluation
Soils Engineering	Stormwater Routing
Flood Routing	Foundations
Geographic and Hydrologic Studies	Site Development
Land Planning	Hydrologic & Hydraulic Analysis
	Plumbing System Design
Site Utilities	Roadway/Highway
Subsurface Investigation	Water/Wastewater Systems
	Erosion and Sediment Planning
Code Compliance	Landfill Construction/Inspection
Civil/Architectural Support	Building Inspection
USDOT Jurisdictional Pipelines	USDOT Class Determination
DOT O&M Manuals	DOT Procedures Manuals

Rodney D. Kidd

Project Engineer

Years of Experience with MSES: 23 Years of Experience with Other Firms: 12

Education

B. S. Civil Engineering, West Virginia University, 1974

Professional Registrations/Certifications

Certified Compaction Technician - West Virginia Department of Highways Certified Concrete Technician - West Virginia Department of Highways

Professional Organizations

American Society of Testing Materials
American Water Well Association
National Ground Water Association
Past Chairman - City of Bridgeport Planning and Zoning Commission

Past Work History

Union Carbide Corporation

Project Management		Regulatory Interaction
Sampling/Laboratory Programs		Data Base Systems
Life Safety Codes		Specification Development
Job Costing		Property Evaluation
QA/QC Inspection & Compliance		Economic Feasibility
Soils Engineering		Earth Sciences
Flood Routing		Stormwater Routing
Geographic and Hydrologic Studies		Foundations
Land Planning		Site Development
Municipal Engineering		Hydrologic & Hydraulic Analysis
Site Utilities		Plumbing System/Design
Firewater Systems		Roadway/Highway
Subsurface Investigation		Water/Wastewater Systems
Stormwater Management		Erosion and Sediment Planning
Code Compliance		Civil/Architectural Support

Rex B. Tennant, II

Environmental Chemist/Programmer

Years of Experience with MSES: 13 Years of Experience with Other Firms: 24

Education

- B. S., Chemistry, West Virginia University, 1972
- B. S., Computer Science, Salem College (now Salem-Teikyo University), 1986

Professional Organizations

American Chemical Society

Past Work History

Sturm Environmental Services - Chemist, Lab Manager, Lab Director, Vice President U. S. Army Environmental Hygiene Agency - Chemist

Southern Ohio Coal Company - Environmental Technician

U. S. Army Environmental Hygiene Agency - Lab Technician

Management	Computer Modeling
Regulatory Interaction	Computer Programming
Phase I/II Investigation	NPDES Permitting
Remediation (Design and Permitting)	Hazardous Waste Management
RCRA Waste Units	Air Emission Modeling
Sampling/Laboratory Programs	Brownfields Specialist
Data Base Systems	CAD/Intergraph/CAM
Stormwater	Indoor Air Quality
Risk Assessment/Analysis	SARA Title III
Water/Wastewater Treatment	Lead Base Paint Assessment
Data Processing	Data Management
Training	GIS Support
Mold and Fungi	NACE Internal Corrosion

Wayne C. Reinhart

Project Engineer

Years of Experience with MSES: 22 Years of Experience with Other Firms: 4

Education

B. S., Engineering, Fairmont State College, 1983

Professional Organizations

Member Construction Specifications Institute National Fire Protection Association

Past Work History

Clark, Dietz, and Associates John C. Giese Engineers, Inc. Union Carbide Corporation

 Project Management	_	Regulatory Interaction
Sampling/Laboratory Programs		Data Base Systems
Life Safety Codes		Specification Development
Job Costing		Property Evaluation
QA/QC Inspection and Compliance		Economic Feasibility
Soils Engineering		Earth Sciences
Land Planning		Hydrologic & Hydraulic Analysis
Flood Routing		Site Development
Stormwater Management		Plumbing System/Design
Municipal Engineering		Roadway/Highway
Site Utilities		Water/Wastewater Systems
Firewater Systems		Geographic & Hydrologic Studies
Subsurface Investigation		Erosion and Sediment Planning
Stormwater		Civil/Architectural Support
Structural		CAD/Intergraph/CAM
Code Compliance		Foundations
Computer Modeling		

Richard R. Casteel, P. S.

Survey Crew Leader

Years of Experience with MSES: 24 Years of Experience with Other Firms: 2

Education

A. S., Land Surveying, Glenville State College, 1983

A. S., Forestry, Glenville State College, 1983

Professional Registrations/Certifications

Professional Surveyor, West Virginia, Ohio, Kentucky, Pennsylvania Wetland Identification - U. S. Army Corps of Engineers Training Hazardous Waste Operator - OSHA

Hazardous Waste Supervisor - OSHA

Professional Organizations

West Virginia Association of Land Surveyors, Chapter Representative, Vice President, President, currently immediate Past President American Congress on Surveying and Mapping

Member Ethics Board, West Virginia State Board of Land Surveyors

Past Work History

Mountain State Surveying

Project Management	Regulatory Interaction
Phase I and II Investigation	Computer Modeling
Data Base Systems	Property Evaluation
Species Identification	Mapping
Site Surveys	QA/QC Inspection & Compliance
Sampling and Data Collection	Job Costing
Wetlands	Site Development
Project Support	Transportation
Recreation	Flood Plain
GPS Surveys	GIS Surveys/Mapping
E-911 Surveys	Civil/Architectural Support

Sharon Reeves Cottrill Land Planner						
Years of I	Years of Experience with MSES: 29 Years of Experience with Other Firms: 4					
Education	Education					
B.	S. Landscape Architecture, West Vi	rginia University	(Cum Laude), 1976			
Profession	nal Organizations					
We	est Virginia Society of Landscape A	rchitects				
Past Worl	k History					
CN	IG Transmission Corporation					
Experienc	e Summary					
	Project Management	O	Species Identification			
	Data Base Systems		Computer Modeling			
	CAD/Intergraph/CAM		Illustrations			
	Regulatory Interaction	ū	Job Costing			
	Specification Development	Q	Mapping			
0	Land Planning		Site Development			
	Code Compliance	Q	Architectural Support			
	Civil Support		E-911 Mapping			
	GIS Mapping	ū	GPS Data Management			
O	Data Processing		911 Re-addressing			
	ArcInfo	۵	ArcView			

Lawrence M. Rine

Principal and Quality Assurance/Quality Control Manager

Years of Experience with MSES: 33 Years of Experience with Other Firms: 14

Education

B. S. Mechanical Engineering, West Virginia Institute of Technology 1969

B. S. Mining Engineering, West Virginia Institute of Technology 1970

Masters Study, Environmental Engineering, Cornell University 1973

Professional Registrations/Certifications

Certified Monitoring Well Designer and Installer - WVDEP

Licensed West Virginia Underground Storage Tank Closure/Installation Specialist

Class I Certified Public Water Supply Operator, West Virginia

Class II Certified Wastewater Treatment Plant Operator, West Virginia

Certified Commercial Applicator, West Virginia and Pennsylvania

Radiation Safety Officer - NRC

Certified Asbestos Inspector/Manager/Planner/Clearance Air Monitor - WVBOH

Licensed Remediation Specialist - WVDEP

Certified Mineral Appraiser - U. S. Army Corps of Engineers

Member State School Building Authority - Indoor Air Quality Committee

Geosynthetic Accreditation Institute - Clay & Geo Synthetic Liners

Professional Organizations

West Virginia Independent Oil and Gas Association (Environmental Committee Member)

Virginia Independent Oil and Gas Association (Association's Outstanding Member, 1990)

Pennsylvania Independent Oil and Gas Association

National Society of Professional Engineers

West Virginia Society of Professional Engineers, T. Moore Jackson Chapter

West Virginia Surface Mine and Reclamation Association

Past Work History

CNG Transmission Corporation

Experience Summary

Job Costing	Waste Management/Minimization
Management	Hazardous Waste Management
Groundwater Modeling/Monitoring	Asbestos Assessment
Earth Sciences	Lead Base Paint Assessment
Risk Assessment/Analysis	NORM Assessment
Regulatory Interaction	Brownfields Specialist
Economic Feasibility	Mapping
Phase I/II Investigation	Noise Assessment
Remediation (Design and Permitting)	SARA Title III
RCRA Waste Units	Specification Development
Drilling Programs	Environmental Impact Statements
Bioremediation	Data Processing
Sampling/Laboratory Programs	Public Mtg. & Proj. Explanation
Property Evaluations	QA/QC Inspection & Compliance
NPDES Permitting	Architectural Support
Municipal Engineering	Radon
Code Compliance	Water/Wastewater Systems
E-911 Systems	GIS Systems/Data Management

Louis P. Saas, Jr. Project Engineer					
Years of Experience with MSES: 11 Years of Exp	perio	ence with Other Firms: 27			
Education					
B. S. Electrical Engineering - West Virginia Institu A. S. Electronic Engineering- (International Corres					
Professional Registrations/Certifications					
Master Electrician's License - State of West Virgin	nia				
Professional Organizations					
Institute of Electrical Electronic Engineers (IEEE)					
Past Work History					
Equitable Gas Co./Equitrans, L.P.	Equitable Gas Co./Equitrans, L.P.				
Experience Summary					
 □ Project Management □ Brownfields □ Database Systems □ Computer Modeling □ RCRA Waste Units □ Remediation (Design and Permitting) □ Economic Feasibility □ Design (Stations, M&R, Pipeline) □ Code Compliance □ Training Programs □ Gas System 	000000000	Regulatory Interaction Noise Assessment Waste Management/Minimization Life Safety Codes Risk Assessment/Analysis Job Costing Property Evaluation Specification Development QA/QC Compliance Sampling Programs Environmental/Architectural Support			

Richard A. (Rick) Wyont

Senior Environmental Specialist

Years of Experience with MSES: 15 Years of Experience with Other Firms: 23

Education

B. A. Business Administration, Morris Harvey College, 1966-1970 Marshall University, 1964-1966 (No Degree) Haliburton Energy Institute

Professional Registrations/Certifications

Certified Monitoring Well Designer and Installer - WVDEP
Licensed Asbestos Inspector and Clearance Air Monitor - WV Bureau of Health
Hazardous Waste Operator - OSHA
Hazardous Waste Supervisor - OSHA
H₂S Certified
First Responder First Aid with CPR

Past Work History

CNG Producing Company Sonat Exploration Panhandle Eastern Pipeline Company Spartan Gas Company Ravenscliff Development Company

Experience Summary

u	Job Costing	u	Property Evaluation
	Project Management		Waste Management/Minimization
	Natural Gas Pipeline Construction Safety		Hazardous Waste Management
	Natural Gas Well Construction Safety		Asbestos Assessment
	Regulatory Interaction		Lead Base Paint Assessment
	Economic Feasibility		Health & Safety Plan Compliance
	Phase I/II Investigation		Specification Development
	RCRA Waste Units Assessment		Noise Surveys
	Drilling Programs		Sampling and Data Collection
	Sampling/Laboratory Programs		QA/QC Inspection and
	Code Compliance		Compliance
	Hydrostatic Testing of Pipelines		H ₂ S Training Presentations

Joseph Barberio

Construction Engineer

Years of Experience with MSES: 4

Years of Experience with Other Firms: 34

Years of Direct Natural Gas Industry Experience:

32

Education

B. S. Engineering Technology, Fairmont State, 1974
Appalachian Underground Corrosion Short Course, WVU, Morgantown, WV
Eastern Gas Compression Roundtable - WVU, Morgantown, WV
International School of Construction Estimating - New Orleans, LA

Fisher Valve Engineering Seminar - Marshalltown, IA

ASME Pump & Valve Selection - Chicago, IL

McAuto Pipeline Training Seminar - St. Louis, MO

ASME Piping Design and Stress Analysis - Colorado School of Mines, Golden, CO

FERC Natural Gas Pipeline Environmental Compliance Workshop, Chicago, IL

West Virginia and EPA Approved Clearance Air Monitor Courses - 2007

West Virginia and EPA Approved Asbestos Inspector Courses - 2005-2007

Certified CQA Geosynthetic Materials and Compacted Clay Liner Inspection Course

Tensar Earth Technologies, Inc. Ground Improvement Technologies Seminar

Past Work History

Consolidated Gas Supply Corporation/CNG Transmission/Dominion Transmission

Experience Summary

Cathodic Protection Systems	GPS Surveys
Job Costing	Compressor Station Construction
Project Management	Asbestos Assessments
Earth Sciences	Phases I/II Investigations
Safety for Pipeline Installation	Materials Handling
Trenching Safety	Sampling/Laboratory Programs
Hydrostatic Testing of Pipeline	Safety Training (Pipeline Construction)
Regulatory Interaction	Lockout/Tagout for Pipeline/
	Compressor Station Construction

COMPUTERS/CADD

MSES has successfully integrated the disciplines of engineering, surveying, mapping, and data processing into a very efficient blend of talent. Computer services at MSES began in 1984; since then, the firm has continuously augmented the equipment capabilities and system support staff.

MSES maintains a computer-aided design and drafting (CADD) system, which increases the efficiency of planners, designers, and engineers, and allows greater design flexibility.

MSES has more than twenty-five (25) years of direct CADD experience with its own in-house CADD system, consisting of both AutoCAD and InterGraph CADD work stations. Our survey equipment, GPS instruments, and hand-held computerized data collectors are integrated to download field information directly into our in-house network system.

The growing in-house library of computer programs includes a collection of software for survey and mapping, hydrologic/hydraulic studies, water resources management, water system facility design, treatment plant design, groundwater modeling, geotechnical investigations, air issues, data management, and cost estimating. Frequently used programs include:

EAGLE POINT 2009 - Q3 CIVIL DESIGN	CARLSON - CIVIL DESIGN & SURVE	Y CAD 2009	SEDCAD4	STABLE7
WINSTABL	SURFER	HELP3	GTGS	WINLOG
LANDGEM	AIR4	HEC-1	ISC3	SCREEN3
TR20	SURVCADD	HEC-2	MOC	HY8
TR55	LICONTOUR	HECRAS	HYDRAFLOW-7	MODFLOW
STORMCAD	TRAVERSE PC	KYPIPES	CIVILTOOLS	NWS
SEDCAD	SMI	MAPS	WSP2	HMR52
ARC/INFO	ARC/VIEW	URB-1	DBASE-IV	ALPHA-4
EXCEL	MICROSOFT ACCESS	QUATTRO PRO	LOTUS APPROACH	LOTUS 1-2-3
ADOBE ACROBAT/ PHOTO DELUXE	MICROSOFT POWERPOINT	MICROSOFT OUTLOOK	AUTOCAD/ AUTOCAD LIGHT	PHOTO PLUS
COREL PRESENTATION	DELORME 3D TOPO	BP RISC	COREL CENTRAL	CPDM
BH LOGGER	LAPLINK	I-STEPS	MGI PHOTOSUITE	PARADIGM
PHOTO PLUS	RMP SUBMIT	TANKS	LAWYER 99	ERS 99

QUICKCAD	SNAGIT	TIERII WIN	QUICKEN	E-ONE
GLY-CALC CONVERSIONS	POW-R DESIGNER	LITHONIA VISUAL	SWEETS CD	TOPO USA
AUTODESK VOLO VIEW	COREL WORDPERFECT	TR SS	TPA SOFTWARE	ATRS 99
MASTERSPEC MECHANICAL/ ELECTRICAL	MASTERSPEC OUTLINE ARCHITECTURAL/ STRUCTURAL/CIVIL	WINZIP	MICROSOFT STREETS 98	WEATHER LINK
MASTERSPEC SMALL PROJECT	MASTERSPEC STRUCTURAL/ CIVIL	QUICK BOOKS PRO	CONVERSION PLUS	MICROSOFT WORD
LEICA FLIKIN	AIRBORNE GPS REDUCTION	AUTODESK LAND DEVELOPMENT DESKTOP	MICRO STATION	EAGLE POINT 98
ALBANY TRIANGULATION	SPECTRA PRECISION TERRAMODEL	KORK DIGITAL MAPPING	ERDA IMAGINE	

In addition to engineering software, MSES uses the latest PC-based support tools to manage and enhance its assignments, including project management, spreadsheet, database management, graphic, word processing, and desktop publishing.

GEOGRAPHIC INFORMATION SYSTEMS (GIS)

MSES utilizes Geographic Information Systems (GIS) services for specialized analyses and geographically-oriented database construction. We have the latest versions in-house of full-service GIS programs, including Small Worlds, ArcInfo 9.3, and ArcView GIS 9.3, and have the distinction of having trained personnel in-house with the knowledge and experience in the design, use, and generation of displays with these applications. Our data management tools have been upgraded with the entire suite of add-on modules (ArcInfo Geocoding and Visual Basic, and ArcView 3D, spatial, Streetmap, network, and TASC tracking analyst and Geoprocessing (re-addressing) extensions).

SURVEY EQUIPMENT

Each MSES survey crew is equipped with an assigned four-wheel drive vehicle that provides access to survey points and survey locations in all terrains at all times of the year. Each crew is equipped with Leica electronic total stations, with integrated data collectors. Each of the stations is certified for first and second order accuracy. In addition, the crews utilize Global Positioning Survey (GPS) equipment, that allows for sub-meter resolution, in two (2) configurations; the first is backpack/monopole-mounted, and the second is comprised of tripod-mounted dual frequency transmittal and receiving GPS units. These GPS survey units consist of Magellan Mobil Mapper CX for each of the six MSES survey crews and two of the Magellan RTK Total Station GPS Sub-Centermeter Units. Each survey crew is also equipped with a laptop computer, which allows for near instantaneous downloading and transmittal of data to MSES' office, for rapid processing and development of associated mapping and other related uses. In addition to this electronic equipment, each survey team is equipped with the support field and office equipment required to keep the crews and their operations running smoothly.

5. Related Prior Experience

The MSES Project Team currently provides a wealth of services to many public and private landfills and solid waste facilities throughout West Virginia and many of the surrounding states. Typically the services provided by the individual and collective team members may be ascribed to the following general categories:

□ Solid Waste

- New Facility Siting
- Regulatory Interaction
- Hydrogeologic Evaluations
- Part I Permitting
- Part II Design and Permitting
- Closure
- Liner Systems
- Gas Venting
- Recycling
- Composting Systems
- Special Waste Handling Systems
- Incineration
- Design, Construction Documents, Construction Management, and QA/QC

☐ Hazardous Waste Facilities

- Siting
- Waste Characterization
- Closure
- Regulatory Interaction
- Public Awareness
- Hydrogeologic Evaluations/Protection
- Liner Systems
- Consent Decrees State and Federal
- Design and Permitting
- Construction Documents, Construction Management, and QA/QC

□ Groundwater

- Hydrogeologic Investigations
- Aquifer Characterization
- Groundwater Modeling
- Aquifer Testing
- Monitoring Well Installation and Development
- Sampling and Analysis Programs
- Monitoring
- Statistical Analyses
- Groundwater Protection Planning and Plan Development

	Stormwater and Sediment Control
	 Pre- and Post-Construction Management
	– Design
	Permitting
	 Construction Documents, Construction Management, and QA/QC
	 NPDES Sampling, Analysis and Compliance
	Leachate
	 Evaluations and Volume Determination
	- Collection Systems
	- Treatment
	- Storage
	- Disposal
	- Permitting
	 Sampling, Analysis, and Compliance Monitoring
	Planning
<u></u>	- Siting Studies
	- Demographics
	- Air Space/Site Utilization
	 Permitting Requirements (Air/Stormwater/Leachate/Landfill/Closure)
	- Public Service Commission (Certificates of Need/Rate Analysis)
	Earth Sciences
J	- Geologic Investigations
	- Soil Surveys
	Slope Stabilities
	- Sedimentation Evaluations
	bodimentation Lyapuations
	Environmental
	- Impact Assessments
	 Investigations (Biological/Chemical/Water Quality/Noise/Air)
	- Site Reviews/Past Activities
	Water Resources
	 Surface and Groundwater Hydrology
	- Water Pollution
	- Water Resource Impact Evaluation
	- Wetlands Identification
	 Perennial Stream Evaluations

Related Prior Experience

□ Document Preparation

- Landfill (Part I/Part II/Closure/Modifications Minor and Major)
- State and Federal Discharge Applications
- Public Service Commission (Siting Analysis/Demonstration of Need/ Economic Analysis)
- Associated Documents/Plans Required in Support of Permitted Activities

As a reward for MSES' knowledge, responsiveness, and diligence, a great deal of trust has been established between MSES and our clientele. This has resulted in the maintenance of numerous master service/indefinite delivery agreements and contracts for many of our long-term clients, some of which are identified below:

	City of Clarksburg, City Engineer - MSES was selected in January 1999 as the Engineer for the City of Clarksburg, West Virginia, with MSES staff members serving as the City's Engineer/Public Works Director. MSES will provide the City with all its engineering, planning, code inspections, environmental, infrastructure, and funding/budget planning needs.
0	Dominion Transmission, Inc. (formerly CNG Transmission Corporation) - MSES has maintained a master service agreement with this firm since 1990, for the provision of engineering, surveying, mapping, and corrosion surveys.
	Dominion Hope (formerly Hope Gas, Inc.) - Since 1992, MSES has retained a master service agreement with Hope Gas, which includes engineering, surveying, mapping, environmental sampling, reviews, assessments, and right-of-way acquisitions.
	Dominion Peoples (formerly Peoples Natural Gas) - MSES currently holds a master service agreement with this company for corrosion engineering, corrosion surveys, and internal corrosion sampling and analysis.
	Columbia Gas Transmission Corporation - MSES continues to maintain a master service agreement with Columbia for system-wide sampling and analysis of soils and liquids associated with external and internal pipeline corrosion.

USDA Natural Resources Conservation Service - MSES is currently in the third year of a five (5) year indefinite delivery contract to conduct countywide water resources studies throughout the State of West Virginia. These involve compilation and analysis of extensive physical, chemical, geographic, and socio-economic data in order to develop feasible planning documents for the provision of safe, reliable, drinking water supplies and wastewater treatment and collection systems for designated counties throughout the state. The development of the plans relies heavily on evaluations of surface water and groundwater resources and hydrogeologic investigations and modeling. United States Department of the Army, Huntington District, Corps of Engineers - Since 1982 MSES has maintained annual indefinite delivery contracts with the Huntington District of the USACE for Phase I and Phase II environmental screenings and real estate and mineral appraisals. United States Department of the Army, Pittsburgh District, Corps of Engineers - Since 1992, MSES has maintained annual indefinite delivery contracts with the Pittsburgh District of the USACE for the same types of activities described above. United States Postal Service - In conjunction with this three-year indefinite delivery services contract, MSES has just begun its first year of providing environmental and engineering services for existing and newly-acquired post office sites throughout the States of West Virginia, Virginia, and Kentucky. These services include site selection, surveying, site development planning, permitting, and Phase I and II environmental site reviews. Dominion Resources, Inc. (formerly CNG Natural Gas Company) - In October 1998, MSES Consultants, Inc. (MSES) was one (1) of three (3) consultants chosen from an initial pool of fifty-seven (57) environmental companies to provide corporate-wide environmental characterization and site remediation planning throughout (former) CNG Natural Gas Company (CNG)'s operational territory, which extends from the Canadian border to offshore in the Gulf of Mexico and inland areas of Louisiana. MSES was selected for a three-year indefinite delivery contract to assist CNG and its various subsidiaries to conduct site and hydrogeologic evaluations; address their waste storage, treatment, and disposal concerns; identify potential environmental problems and perform reviews and characterizations of these areas; develop clean-up and/or remediation plans; provide interaction with the various State and Federal environmental agencies; coordinate permitting; furnish clean-up/construction quality assurance/quality control oversight and

testing; and ensure final site clean-up/program compliance at the conclusion of each project.

RELATED PRIOR EXPERIENCE

To demonstrate our diverse experience in the solid waste industry, MSES has prepared a summary of our related prior experience, highlighted by the following table. Since the City of Clarksburg Landfill project is located in West Virginia and will entail interaction with West Virginia-based regulatory agencies, we have eliminated from this listing projects located within the seven (7) nearby states of Pennsylvania, Ohio, Maryland, Virginia, New York, Kentucky or Tennessee. The projects listed have been conducted within the last ten (10) years.

Some of the listings provided are for facilities with whom we have maintained ongoing relationships since the early to mid-1980s. Our public involvement and affiliations with steering committees, regulatory review groups, etc. has allowed MSES to develop a professional and personal rapport with many of the State agencies and their personnel whom will be involved in the reviews and approvals for landfills' planned expansions.

PROJECT NAME	CLIENT	LOCATION	DESCRIPTION
Fayette County Landfill Closure	Fayette County Solid Waste Authority	Fayetteville, WV	Expansion feasibility investigation (33 CSR 40); closure, with documentation for LCAP Program; hydrogeologic investigations and impacts on New River; experimental daily cover systems; leachate evaluation, characterization, collection and treatment.
Fayette County Solid Waste Facilities Siting Plan	Fayette County Solid Waste Authority Fayette County Commission	Fayette County, WV	Developed County-wide solid waste facilities siting plan; public involvement; County approvals; WV Solid Waste Management Board approval
Fayette County Recycling Plan	Fayette County Solid Waste Authority	Fayette County, WV	Prepared County-wide solid waste recycling plan; hauler involvement; public input; WV Solid Waste Management Board approval
Indefinite Delivery Contract	Fayette County Solid Waste Authority	Fayette County, WV	From 1995-1998 provided on-call engineering, environmental, planning, funding, and technical assistance to the FCSWA for the rectification of outstanding Notices of Violation issued by the State
Clarksburg Landfill	City of Clarksburg	Clarksburg, WV	Landfill closure; application for LCAP Program; hydrogeologic investigation; monitoring well installation; quarterly sampling/analysis

PROJECT NAME	CLIENT	LOCATION	DESCRIPTION
Yard Waste Composting Facility	City of Clarksburg	Clarksburg, WV	Siting; planning, design, specifications; Certificate of Need; equipment specifications and selection; permitting; funding applications; facility expansions; stormwater and leachate collection; NPDES permitting; technical advisor to operations personnel
Randolph-Elkins Landfill	City of Elkins	Elkins, WV	Modifications to existing Part I and Part II landfill permit; construction documents; construction management; QA/QC activities; leachate management, from both new and closed MSW landfill areas; annual reporting; existing landfill closure planning
County-Wide Water Resources Evaluations	USDA Natural Resources Conservation Service	Various Counties Throughout WV	Five-year indefinite delivery contract to provide County-wide hydrogeologic evaluations and water contamination solutions for groundwater and surface water systems, primarily focusing on providing safe and accessible drinking water. Counties completed to date include McDowell, Randolph, Wetzel, Fayette, Grant, and Pendleton; Hardy County to be completed in 2001.
Northwestern Landfill	Waste Management, Inc.	Parkersburg, WV	Compilation of Part I application information for two (2) permit expansion areas, including detailed mapping; geologic mapping; hydrogeologic investigations; perennial stream and wetlands determinations; compliance issues; and regulatory interaction.
Mingo County Landfill	Mingo County Solid Waste Authority/ Mingo County Redevelopment Authority	Williamson, WV	Siting; Part I and Part II development; Certificate of Need, technical assistance, public meetings; recycling center as part of landfill development; technical assistance to County Waste Authority
Meadowfill Landfill	Waste Management, Inc.	Bridgeport, WV	GPP, SPCC Plan, Subtitle D Operating Record, Title V air permit application, annual landfill gas certified emissions statements, gas venting program in new MSW area, and annual reporting since 1992
Meadowfill Landfill	Waste Management, Inc.	Bridgeport, WV	Geological investigations, consisting of test pitting, reviews of existing subsurface information, and surficial geologic mapping for borrow and construction materials.
Northwestern Landfill	Waste Management, Inc.	Parkersburg, WV	Preparation of 1997 - Present construction budgets; Title V air permit; evaluation and preliminary design for pumping of leachate to Parkersburg Sanitation Board; 1998 site aerial photography

PROJECT NAME	CLIENT	LOCATION	DESCRIPTION
Meadowfill Landfill	Waste Management, Inc.	Bridgeport, WV	Landfill's Engineer-of- Record since 1988, beginning with initial siting and planning of new MSW area and separate C&D area; hydrogeologic investigations; Part I and Part II completion and submittals; Certificate of Need; Harrison County Solid Waste Authority approvals; public awareness meetings; old MSW landfill closure; construction planning, construction documents, support and QA/QC; site surveys and mapping; day-to-day technical assistance and monthly OSHA safety training and related services
Tucker County Landfill	Tucker County Solid Waste Authority	Thomas, WV	Overlay of new liner system over existing landfill material; Part I and Part II development; Certificate of Need; Construction documents, construction management, and construction QA/QC; leachate collection system; hydrogeologic and geologic evaluations of expansion area; permitting; closure of old MSW area; recycling/baler building; composting facility pilot program for fish processing plant waste
S&S Landfill	Eastern Environmental	Good Hope, WV	Siting; hydrogeologic investigation and monitoring well installation; Part I and Part II; Certificate of Need; wetland identification and removal; permitting and technical assistance
Incinerator Ash Landfill	Cytec Industries, Inc.	Willow Island, WV	Siting, hydrogeologic investigations, Part A and Part B Hazardous Waste Landfill permitting; geologic and soil studies; leachate collection, pumping, and treatment; liner systems, synthetic and manufactured clay; construction documents, construction technical assistance, and construction QA/QC; air permitting; groundwater protection planning; USEPA Region III and WVDEP regulatory agency interaction
Flyash Disposal Landfill	Cytec Industries, Inc.	Willow Island, WV	Development and permitting of industrial solid waste landfill for the de-watering and disposal of flyash; de-watering effluent collection, pumping, treatment, and disposal; economic re-use planning of flyash
Banner Fibreboard Industrial Landfill	Banner Fibreboard	Wellsburg, WV	Compilation of Part I and Part II applications for closure of now inactive former industrial waste landfill, including detailed mapping; geologic mapping and characterizations; hydrogeologic investigations/analyses; aerial photography; compliance issues; and regulatory interaction

PROJECT NAME	CLIENT	LOCATION	DESCRIPTION
Hazardous Waste Solid Waste Management Unit Closure	Cytec Industries, Inc.	Willow Island, WV	Location investigations; site identification and characterization; hydrogeologic investigations, groundwater impact assessments, aquifer testing, monitoring well installation; closure planning; closure permitting and regulatory interaction; construction documents, construction technical assistance, and construction QA/QC for 22 sites within the 3,000 acre complex.
Glass Cullet Disposal Area Closure	The Fenton Art Glass Company	Williamstown, WV	Fenton's consulting engineer since 1991, for characterization/closure of an on-site former disposal area of spent and below-standard glass and waste glass batch materials, now deemed by State and Federal regulations as hazardous waste. MSES has performed detailed subsurface investigations, site mapping, and sampling/ analysis programs to define the character and extent of waste; extensive hydrogeologic investigations, including area water well inventories, groundwater monitoring well installation, development, sampling, and analysis, aquifer studies and pump test analyses. Data were utilized to develop a detailed site characterization and treatment and closure plan for the 1.2-acre hazardous waste disposal area, calling for in-place closure of the former disposal area, detailed groundwater monitoring plan, re-sloping and compaction of existing materials in the disposal area, and installation of synthetic and soil liners to cap the disposal area. MSES coordinated all regulatory agency interactions for the Plan's approval, negotiated Consent Order with WVDEP, and provided construction oversight, quality assurance/quality control of closure activities and materials used, and compliance documentation.
Braxton County Citizens' Civil Action	Central WV Refuse, Inc.	Gassaway, WV	Appointed by Federal Judge as Special Lawmasters to investigate hydrogeologic conditions, leachate generation, leachate collection and treatment, and final closure of an inactive landfill; also involved interaction with regulatory agencies, citizens' action groups, and class action law firms; developed report of hydrogeologic conditions, leachate production, and closure needs; negotiated settlement between citizens' group, parties to class action suit, and Central WV Refuse; coordinated closure under LCAP Program
S&S Landfill	S&S Grading, Inc.	Good Hope, WV	GPP and SPCC Plans
Meadowfill Landfill	Meadowfill Landfill, Inc.	Bridgeport, WV	GPP and SPCC Plans

PROJECT NAME	CLIENT	LOCATION	DESCRIPTION
Meadowfill Landfill Major Permit Expansion	Meadowfill Landfill, Inc.	Bridgeport, WV	Part 1 and Part 2 preparation, certificate of need, construction documents, construction management, construction CQA, leachate collection system, hydrogeologic and geologic evaluations of expansion area, permitting, and closure of existing area
S&S Landfill Major Permit Expansion	S&S Grading, Inc.	Good Hope, WV	Part 1 and Part 2 preparation, certificate of need, construction documents, construction management, construction CQA, leachate collection system, hydrogeologic and geologic evaluations of expansion area, permitting, and closure of existing area
City of Clarksburg C&D Landfills	City of Clarksburg	Clarksburg, WV	Siting, design, and permit to implement multiple 2 acre C&D Landfills for City housing demolition
City of Clarksburg C&D Landfill Closure	City of Clarksburg	Clarksburg, WV	Record surveying, drainage design, and construction, cover material location of C&D placement to achieve final grade, courthouse and deed work to close C&D landfill.

RELATED PRIOR EXPERIENCE - CITY OF CLARKSBURG LANDFILL

MSES and, most pertinent, the MSES Professional Staff to be assigned to the WVDEP City of Clarksburg MSW Landfill closure cap design and permitting has had an on-going history with the City of Clarksburg MSW Landfill. The following provides a brief history of MSES' involvement with the City of Clarksburg's Landfill.

Original Closure Permit

MSES, under contract with Waste Placement Professionals, Inc., prepared and obtained a Closure Permit for the Clarksburg MSW Landfill in 1990. The landfill was operated for the City by Waste Placement Professionals and Mid-American Waste Systems of Harrison, Inc. until 1994 when it became inactive and received an intermediate soil cover. The closure permit involved characterization of the landfill and surrounding property, hydrologic and geologic studies, groundwater monitoring system, soils testing and classification, and stormwater management design. MSES assembled and analyzed this data to prepare a permit application for closure of the landfill under the newly enacted Emergency Solid Waste Management rules.

Upgrade to Landfill Cover

Upgrade Clarksburg Landfill's intermediate cover, leachate collection system, and stormwater management. Under contract to WVDEP Landfill Closure Assistance Program, in 2002 and 2003, MSES designed and performed field QA/QC inspection for installation of a perimeter leachate seep

collection system for Clarksburg's MSW Landfill. A perimeter drain line was installed at the toe, enclosing the west, east, and south sides of the landfill with laterals to intercept upslope seep outbreaks. Work also included correction of low spots in the intermediate cover to prevent ponding and installation drainage ditching and sediment control structures.

Yard Waste Compost Facility

At the request of the City, MSES, in 1993 and 1994, designed a Yard Waste Composting Facility and secured a permit for the facility through modification of the Clarksburg Landfill Closure Permit. The yard waste facility uses the landfill's sediment pond for stormwater management and sediment erosion control. The composting facility continues to operate under the landfill's closure permit, using the landfill access road and areas on the property not containing landfilled waste. MSES manages information and prepares progress mapping to secure permit renewals for the landfill allowing continued operation of the composting facility.

Leachate Management

MSES has developed and monitored the collection of landfill leachate and its discharge to the City of Clarksburg's Wastewater Treatment Collection System. MSES, in the late 1990s, prepared plans and drawings for the enlargement of the landfill's leachate collection and holding tank farm. Further, MSES developed the leachate surveillance program for the routine inspections of the closed landfill for leachate breakouts, recording, corrective action plan, and leachate correction training of the City's Public Work's personnel.

City C&D Landfill

MSES prepared permit application and progress mapping to secure annual permit to operate a non-commercial C&D landfill in an area adjacent to the closed MSW Landfill. MSES has performed these services since 2002, working directly for the City's Department of Public Works. The most current C&D site is permitted to use MSW Landfill's sediment pond for stormwater management and sediment control.

Other Non-Landfill Uses of Permitted Landfill Property

In 2007, with final completion in 2008, MSES assisted City of Clarksburg, City and County Departments of Public Safety, and Federal Criminal Justice Information Center in the development of a state-of-the-art gun range for police officer training; certification, and re-certification of firearms. MSES prepared the site mapping, layout, grading plans, construction documents, and construction QA/QC. The gun range is located in an unused area of the City's MSW Landfill property, which the MSW Landfill used for daily cover soil.

Landfill Engineering Duties

Since 1999, MSES has been retained by the City of Clarksburg to maintain environmental management of the facility. In this capacity, MSES has managed surface water and groundwater monitoring, performed landfill gas monitoring and general on-site observations of landfill cover and facilities and maintained permit renewals.

General

MSES Consultants, Inc. confirms the Team's intention and willingness to:

- 1. Abide by applicable provisions of codes and regulations of the State of West Virginia.
- 2. Employ registered professional engineers, architects, and other pertinent personnel (surveyors, remediation specialists, etc., as applicable) licensed to practice in the State of West Virginia.
- 3. Prepare detailed proposals/work plans, with estimated fees, and to execute agreements for services based thereon, including fixed fees for well identified scopes of work, or other mutually agreeable forms of compensation.
- 4. Comply with all other civil rights, conflict of interest, records access, or other laws, regulations or requirements that may be referenced in conjunction with each project.

Quality Commitment

MSES Consultants, Inc. is committed to providing high quality environmental and engineering services to its customers through its continuous quality improvement program that involves all personnel in a systematic, logical process to continually improve the firm's work practices and procedures. MSES' approach to quality is composed of four elements: the individual, procedures for project execution, procedures for controlling and assuring the quality of our services, and the continuous quality improvement process.

The Individual

Since 1976, we have relied on the care, diligence, imagination, intelligence, and commitment of our personnel to provide quality designs and quality services. Recent policies and procedures emphasize the importance and contribution of each individual in achieving our quality goals.

Procedures for Project Execution

Standard procedures for project execution are adopted by MSES, providing for project management with current guidelines and procedures for managing projects and assuring quality in our technical performance, from the proposal stage through the close-out stage.

QA/QC Procedures

The quality assurance/quality control procedures are incorporated into the technical quality control of services provided to our clients. A set of guidelines and procedures is established for each type of service provided by the firm: planning reports and studies, design services, construction phase services, and facility inspection services. These procedures are used in conjunction with project technical and management controls, which set forth the following criteria on which to base successful completion of a project: project schedule, project budget, scope requirements, project objectives, and client satisfaction.

Continuous Quality Improvement

Continuous Quality Improvement, or CQI, MSES' adaption of Total Quality Management, is a systematic, firm-wide process of improving services we perform for our clients by improving the way we work and the services we provide. CQI is concerned with identifying barriers and removing those barriers. CQI achieves this by making quality a part of everyone's job description. We train each person in CQI and assign him or her to a Quality Improvement Meeting Unit (QIMU). These QIMU's hold one-hour weekly meetings to identify barriers and to propose improvements or changes in the way we work. In this way, CQI provides a vehicle for the recognition and re-involvement of all employees in improving the firm's methods, procedures, and operations.