



Pinellas County
Waste to Energy Consulting Services
RFP 101-0120-CN (AM)

Introduction

- Letter of Interest
- Specific Professional Services
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MALCOLM
PIRNIE



ARCADIS

The Water Division of ARCADIS



The Water Division of ARCADIS

Mr. Joseph Lauro, CPPO/CPPB
Director of Purchasing Department
Pinellas County Board of County Commissioners
400 S. Ft. Harrison Avenue
Annex Building, 6th Floor
Clearwater, FL 33756

Subject: Waste to Energy Consulting Services Proposal Number: 101-0120-CN (AM)

Dear Mr. Lauro, CPPO/CPPB

Malcolm Pirnie, the Water Division of ARCADIS (Malcolm Pirnie) and our subconsultant, Earthshine Environmental, Inc., are pleased to present our qualifications and expertise in response to the Request for Proposals No. 101-0120-CN (AM). Because Malcolm Pirnie currently provides comprehensive contract operations and maintenance oversight services to more than half of the waste to energy (WTE) facilities within Florida, we can provide unparalleled insight into the operational performance and physical condition of the County's critical municipal solid waste, energy recovery system. Together with our subconsultant, Earthshine Environmental, we have a proven track record of assisting communities like Pinellas County in maintaining the value and reliability of their solid waste assets, thereby ensuring the long term provision of cost-effective solid waste disposal and renewable energy recovery.

The Malcolm Pirnie Team benefits Pinellas County by offering the following advantages:

- **Leading WTE Consulting Firm in Florida.** Malcolm Pirnie provides WTE operations and performance monitoring (O&M) services to more Florida facilities than any other consultant. We currently provide services similar to those requested for six of the 11 WTE facilities in Florida, with an annual processing capacity of over three million tons. Communities know they can rely on Malcolm Pirnie to provide comprehensive technical and consulting services related to any aspect of the WTE industry; whether it is in the capacity of Owner's Agent providing comprehensive retrofit construction oversight and O&M services as for the City of Tampa, or providing independent assessment of critical equipment failures as conducted previously for Pinellas County.
- **Exceptional Experience and Expertise of our Staff.** Malcolm Pirnie staff has been providing contract operation oversight and performance monitoring services in Florida for more than three decades. Over this time, our staff has gained unique insight into the operation and performance of these complex facilities. Many of the team members in this proposal have worked together for twenty years or more on these facilities.
- **Local Resources.** Malcolm Pirnie has a full complement of solid waste and recycling expertise located right here in Florida. We have the experience in-house and locally to assist Pinellas County with virtually any type of planned or unanticipated solid waste consulting needs that may arise. Most of the staff resources for this assignment work out of our Tampa office with the remainder coming from around South Florida. Malcolm Pirnie has maintained an office in Tampa for nearly two decades, which has grown to more than 100 staff in a modern, multi-discipline office environment. The location of our Tampa office as the focal point for this assignment makes the project delivery cost-effective and promotes easy face to face scheduling of both planned and impromptu meetings.
- **Extensive National WTE Support Expertise.** In addition to the Florida resources available to Pinellas County, Malcolm Pirnie's national resources are on-call for any emergency, issue or situation that might ever arise. This may include anything from new regulatory requirements, financial support,

Imagine the result

or the emergency restoration of operation following a catastrophic natural disaster or facility shut-down caused by unanticipated equipment failure. Selecting Malcolm Pirnie as your WTE consultant will ensure that you have the right people, with exactly the right knowledge and experience, immediately available to help you deal with any emergency or situation that might arise.

- **Commitment to Minority, Women, and Small Business Enterprises (M/W/SBE).** Malcolm Pirnie has established itself as a leading proponent of small, minority-owned, and woman owned business participants in engineering projects. One of our key team members, Earthshine Environmental, is a W/BE and we look forward to opportunities to add other M/W/SBEs based on the project needs.
- **Fresh Eyes.** One of the benefits of selecting a "new" consultant, especially for services related to monitoring the on-going performance or operator of that facility, is the advantage of having a new team or "fresh eyes" evaluating the condition of the equipment and performance. Many times, a fresh set of eyes can spot important deficiencies that may have been slowly compounding for years without notice.
- **Proven Results.** The only true test of a consultant's performance is results. Malcolm Pirnie's Project Team has developed a proven track record of successful projects almost identical to the services requested by Pinellas County. We have conducted facility inspections and audits, developed working relationships with facility's operators, and have produced top-notch reports detailing the results of our findings and independent opinion, allowing each community and their operator to achieve measurable results through facility improvements and improved performance. We know that our proven, successful formula will provide Pinellas County with the highest level of service.

We appreciate the opportunity to present our Project Team's qualifications, and are available to provide any additional information or address any issues or questions that may arise. Please feel free to call us at (813) 903-3100 to discuss any aspect of our qualifications or this proposal.

Very truly yours,
MALCOLM PIRNIE, THE WATER DIVISION OF ARCADIS US, INC.



Andre Dieffenthaler, P.E.

Principal in Charge



Robert H. French, P.E., BCEE

Project Manager

Enclosures



Waste To Energy Consulting Services

February 2011

Introduction

- Letter of Interest
- Specific Professional Services
- Table of Contents

1. Standard Form (SF) 330 - Part I and II

- Part I, Sections A-H
- Part II

2. Statements and Documentation

- State of Florida, Department of State, Division of Corporations – Certificate of Status
- State of Florida, Board of Professional Engineers – Certificate of Authorization
- Florida State Office of Diversity, Department of Management Services – Certificate(s) of Florida Small and Minority Business
- Hillsborough County Business Tax Receipt and Office Information
- State of Florida, Board of Professional Engineers

3. Certificate(s) of Insurance

- General Liability – Auto – Umbrella – Workers Compensation
- Professional Liability

4. Key Personnel Statement

5. Forms and References

- Acknowledgement of Addenda
- W-9 Request for Taxpayer Identification Number and Certifications
- Section D Vendor References
- Page 1, Signature Page of the RFP

6. Additional Information

- A. Ability of the Firm and Its Professional Personnel
- B. Firm's Experience with Projects of a Similar Size and Past Performance
- C. Volume of Work Previously Awarded by the County
- D. Effect of the Firm's Current and Projected Workload
- E. Minority Business Status
- F. Location

This proposal contains proprietary information that has been provided strictly for the purpose of evaluating this proposal. The proposal shall not be duplicated, used, or disclosed in whole or in part for any other purpose. Each sheet in this proposal is subject to the above restriction. Neither the **Pinellas County, FL** nor any other organization authorized by Malcolm Pirnie/ARCADIS to view this document shall disclose the information contained herein to any third party.

Standard Form (SF) 330 Part I and II

● Part I, Sections A-H

● Part II





Standard Form (SF) 330 - Part I & II

STANDARD FORM 330 - PART 1 CONTRACT-SPECIFIC QUALIFICATIONS

Sections A-D

- A. Contract Information
- B. Architect-Engineer Point of Contact
- C. Proposed Team
- D. Organizational Chart of Firms and Key Personnel

Section E

Resumes of Key Personnel Proposed for this Contract

Section F

Example Projects which Best Illustrate Proposed Team's Qualifications for this Contract

Section G

Key Personnel participation in Example Projects

Section H

Additional Information

STANDARD FORM 330 - PART II GENERAL QUALIFICATIONS

Malcolm Pirnie, Inc. - Tampa, FL
Malcolm Pirnie, Inc. - Fort Myers, FL
Malcolm Pirnie, Inc. - Sarasota, FL
Malcolm Pirnie, Inc. - Fort Lauderdale, FL
Malcolm Pirnie, Inc. - Miami, FL
Malcolm Pirnie, Inc. - West Palm Beach, FL
Malcolm Pirnie, Inc. - Fairlawn, NJ
Malcolm Pirnie, Inc. - White Plains, NY
Malcolm Pirnie, Inc. - Newport News, VA
Earthshine Environmental, Inc. - Tampa, FL

ARCHITECT – ENGINEER QUALIFICATIONS

PART I – CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATION (City and State)

**Waste to Energy Consulting Services
Pinellas County, FL (Clearwater, FL)**

2. PUBLIC NOTICE DATE

January 28, 2011

3. SOLICITATION OR PROJECT NUMBER

RFQ NO. 101-0120-CN (AM)

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE

Andre Dieffenthaller, PE

5. NAME OF FIRM

Malcolm Pirnie, Inc. The Water Division of ARCADIS

6. TELEPHONE NUMBER

(813) 248-6900

7. FAX NUMBER

(813) 248-8085

8. E-MAIL ADDRESS

Andre.Dieffenthaller@arcadis-us.com

C. PROPOSED TEAM

(Complete this section for the prime contractor and all key subcontractors.)

	(Check)			9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
	PRIME	J-V PARTNER	SUBCONTRACTOR			
a.	x			Malcolm Pirnie, Inc. Tampa, FL <input checked="" type="checkbox"/> CHECK IF BRANCH OFFICE	14025 Riveredge Drive, Suite 600 Tampa, FL 33637	Prime Firm
b.	x			Malcolm Pirnie, Inc. Fort Myers, FL <input checked="" type="checkbox"/> CHECK IF BRANCH OFFICE	4315 Metro Parkway, Suite 520 Fort Myers, FL 33916	Operations & Maintenance
c.	x			Malcolm Pirnie, Inc. Sarasota, FL <input checked="" type="checkbox"/> CHECK IF BRANCH OFFICE	101 Arthur Andersen Boulevard Suite 280 Sarasota, FL 34232	Operations & Maintenance
d.	x			Malcolm Pirnie, Inc. Fort Lauderdale, FL <input checked="" type="checkbox"/> CHECK IF BRANCH OFFICE	8201 Peters Road, Suite 3400 Plantation, FL 33324	QA/QC, Service Agreement Compliance & Financial, Operations & Maintenance, Regulatory Compliance and Permitting
e.	x			Malcolm Pirnie, Inc. Miami, FL <input checked="" type="checkbox"/> CHECK IF BRANCH OFFICE	5201 Blue Lagoon Drive, 9 th Floor Miami, FL 33126	Operation & Maintenance
f.	x			Malcolm Pirnie, Inc. West Palm Beach, FL <input checked="" type="checkbox"/> CHECK IF BRANCH OFFICE	500 Australian Ave, Suite 638 West Palm Beach, FL 33401	Service Agreement Compliance & Financial
g.	x			Malcolm Pirnie, Inc. Fair Lawn, NJ <input checked="" type="checkbox"/> CHECK IF BRANCH OFFICE	17-17 Route 208 North, 2 nd Floor Fair Lawn, NJ 07410	Mechanical & Thermal

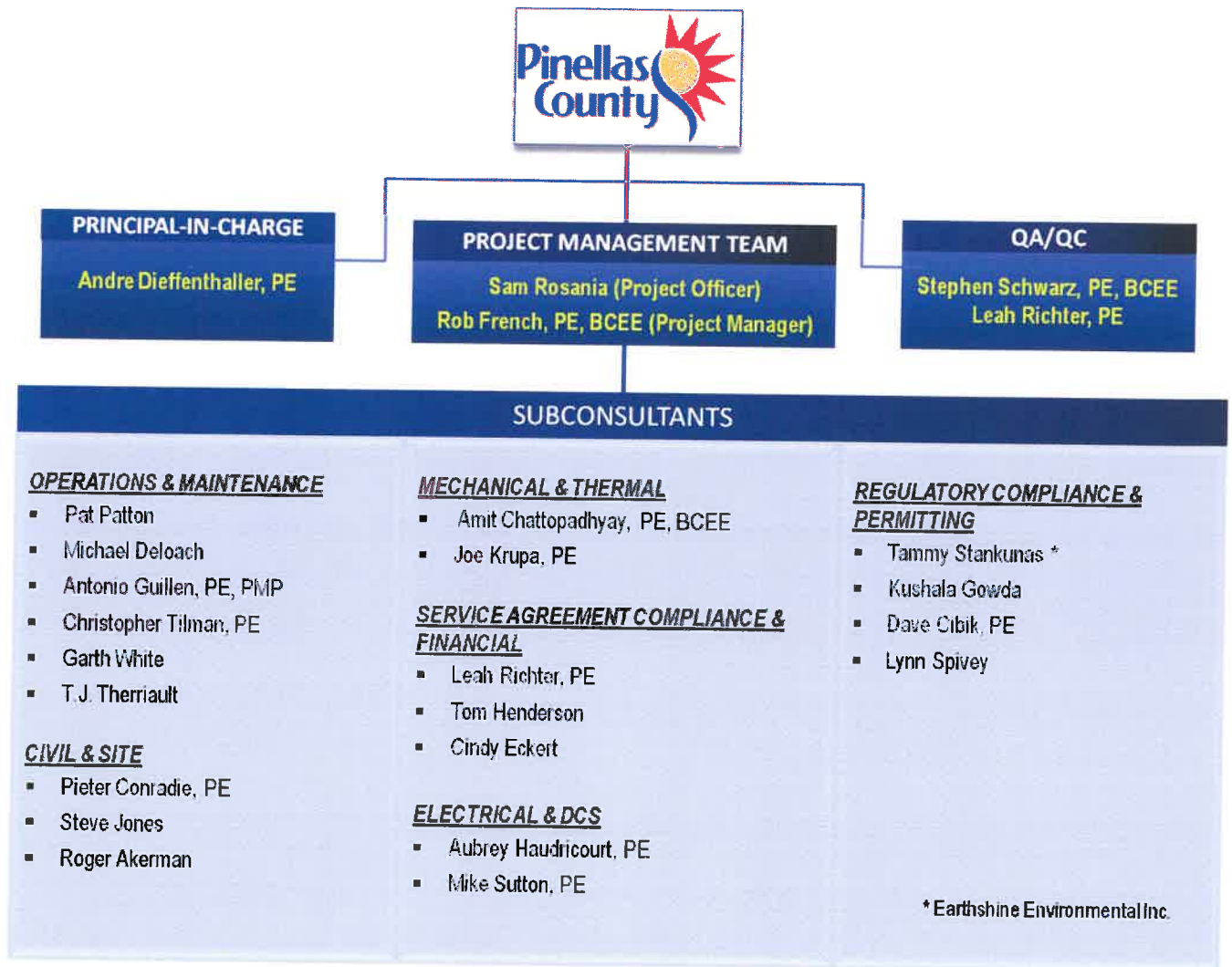
h.	x		Malcolm Pirnie, Inc. White Plains, NY <input checked="" type="checkbox"/> CHECK IF BRANCH OFFICE	44 South Broadway, 15 th Floor White Plains, NY 10601	Mechanical & Thermal
i.	x		Malcolm Pirnie, Inc. Newport News, VA <input checked="" type="checkbox"/> CHECK IF BRANCH OFFICE	701 Town Center Drive Suite 600 Newport News, VA 23606	Civil & Site
j.		x	Earthshine Environmental, Inc. <input type="checkbox"/> CHECK IF BRANCH OFFICE	19046 Bruce B. Downs Blvd. Suite 237 Tampa, FL 33647	Regulatory Compliance/ Permitting

ARCHITECT – ENGINEER QUALIFICATIONS

D. ORGANIZATIONAL CHART OF FIRMS AND KEY PERSONNEL ☒ (Attached)

AUTHORIZED FOR LOCAL REPRODUCTION

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E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Sam Rosania	13. ROLE IN THIS CONTRACT Project Officer	14. YEARS EXPERIENCE <table border="1"> <tr> <td>a. TOTAL 32</td> <td>b. WITH CURRENT FIRM 13</td> </tr> </table>		a. TOTAL 32	b. WITH CURRENT FIRM 13
a. TOTAL 32	b. WITH CURRENT FIRM 13				
15. FIRM NAME AND LOCATION (City and State) Malcolm Pirnie, Inc., Tampa, FL					
16. EDUCATION (DEGREE AND SPECIALIZATION) Graduate studies in M.Sc. Agricultural/Biological Engineering University of Tennessee; BS Plant Pathology University of Florida 1978		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Registered Environmental Manager			
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Construction Safety Awareness; Ergonomics; Health & Safety Training for Project Management; Board of County Commissions, Lee County, Florida, Recycling Programs Recognition Award (1991); NREP Program Management Award for McKay Bay RTE Retrofit Project (2003); Program Award, Region IV, United States Environmental Protection Agency Administrative Award, Recycling Program Achievements (1991); Keep Lee County, Florida Beautiful, Honorary Lifetime Membership; National Recycling Coalition; National Registry of Environmental Professionals (NREP); Recycle Florida Today, Inc.; Solid Waste Association of North Americaogram Award, Region IV, United States Environmental Protection Agency Administrative Award, Recycling Program Achievements (1991)					

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
City of Tampa: McKay Bay Operations Monitoring / Tampa, FL.	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (If applicable) N/A
a. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager for the retrofit of the McKay Bay Refuse-to-Energy Facility, the linchpin of Tampa's solid waste management strategy, represents the first comprehensive "chute-to-stack" retrofit of a waste-to-energy facility constructed in the United States. Going above and beyond the typical retrofit of air pollution control equipment alone to comply with Clean Air Act requirements, this comprehensive renovation will increase efficiency and improve energy production for decades to come. The facility met stringent USEPA emission guidelines and now provides reliable, environmentally sound, cost-effective solid waste management. And – unheard of in a project of this magnitude and complexity – there were no negative change orders. Tampa's new facilities are a model for other communities of positive, proactive solid waste management. Cost: \$12,062,519		
b. (1) TITLE AND LOCATION (City and State) Solid Waste Authority of Palm Beach County: New Waste-to-Energy Facility and Owner's Agent Services / West Palm Beach, FL	(2) YEAR COMPLETED PROFESSIONAL SERVICES Ongoing	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [x] Check if project performed with current firm Currently serves as lead technical director with the overall responsibility for the permitting, of a new 3,000-ton-per-day waste-to-energy facility adjacent to the authority's existing North County Resource Recovery Facility (NCRRF). Key activities include development of application documents required under the Power Plant Siting Act associated with the approval for construction of this estimated \$700M capital project, the first of its kind in more than 15 years. Cost: \$4,769,100		
c. (1) TITLE AND LOCATION (City and State) Energy Answers International, Inc.: Materials Separation Plan Project - Energy Answers 4000 tpd Renewable Fuels 140MW Power Plant / Baltimore, MD	(2) YEAR COMPLETED PROFESSIONAL SERVICES Ongoing	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [] Check if project performed with current firm Energy Answers International, Inc. (Energy Answers) intends to develop a 4,000 tons per day (tpd) Processed Refuse Fuel (PRF) Renewable Fuel Power Plant (the Facility) capable of generating 140-megawatts of power and . The Facility will be built on Fairfield Peninsula in Baltimore, Maryland. Served as the Project Manager for the development of the Materials Separation Plan (MSP) prepared for Energy Answers to satisfy the requirements set forth in 40 CFR 60.57b. By State law all Maryland jurisdictions have State approved integrated solid waste management master plans that have been publicly approved through various jurisdictional mechanisms. These integrated solid waste master plans typically contain extensive recycling components (i.e. materials separation programs) that address in detail how each jurisdiction recycles and separates its solid waste. The MSP incorporated the proposed Facility into Maryland's existing integrated solid waste management system. Cost: \$ 40,000		
d. (1) TITLE AND LOCATION (City and State) Energy Answers Arecibo LLC: Materials Separation Plan Project - Energy Answers 2000 tpd Renewable Fuels 140MW Power Plant / Arecibo, Puerto Rico	(2) YEAR COMPLETED PROFESSIONAL SERVICES Ongoing	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [] Check if project performed with current firm Energy Answers Arecibo LLC, a subsidiary of Energy Answers International, Inc. (Energy Answers) is proposing to construct a Resource Recovery Facility (Facility) to generate renewable energy and recyclable materials from 2,000 tons per day of municipal solid waste (MSW) in Barrio Cambalache, within the Municipality of Arecibo, Puerto Rico. The Facility will utilize processed refuse fuel generated from post-recycling, M and supplemental fuels to generate steam and approximately 70 megawatts of electricity. Serves as the Project Manager for the preparation of Materials Separation Plan (MSP) which outlines and explains the integrated solid waste management separation and recycling techniques utilized throughout the core service area that the Facility will serve. Cost: \$10,000		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Robert French	13. ROLE IN THIS CONTRACT Project Manager	14. YEARS EXPERIENCE <table border="1"> <tr> <td>a. TOTAL 42</td> <td>b. WITH CURRENT FIRM 11</td> </tr> </table>		a. TOTAL 42	b. WITH CURRENT FIRM 11
a. TOTAL 42	b. WITH CURRENT FIRM 11				
15. FIRM NAME AND LOCATION (City and State) Ft. Myers, Florida					
16. EDUCATION (DEGREE AND SPECIALIZATION) BSCE Environmental Engineering West Virginia University 1972		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Professional Engineer (Florida) Chartered Professional Engineer			
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Fellow Member, Institute of Engineers (Australia)					

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager for the design, construction oversight and commissioning of a new 64,000 square foot Recycled Materials Processing Facility (MRF) adjacent to the Lee County WTE Facility. The facility included dual stream processing lines for fiber and containers plus bale storage and loading docks. Some of the processing equipment and the balers were rehabilitated, expanded and relocated from the County's older facility and requiring detailed planning and execution of the relocation while maintaining operation of the recyclable collection system.	<input type="checkbox"/> Check if project performed with current firm NA	<input type="checkbox"/> Check if project performed with current firm NA
b. (1) TITLE AND LOCATION (City and State) Lee County, Florida: Lee County Director of Utilities and Solid Waste / Fort Myers FL. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE As the Director of Utilities and Solid Waste, Mr. French was responsible for the administration and management of the collection and disposal of solid waste in Lee County. Residential collection was provided through competitive selection of contractors for seven zones throughout the County. Disposal was provided at Waste Management's Gulf Coast Landfill. Mr. French was the technical advisor to the Waste to Energy Committee later responsible for the development of the the County's WTE facility.	<input type="checkbox"/> Check if project performed with current firm NA	<input type="checkbox"/> Check if project performed with current firm NA
c. (1) TITLE AND LOCATION (City and State) Collier County Department of Solid Waste: Collier Landfill Odor Control Program / Naples FL (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Mr. French lead a team of landfill and odor control experts to resolve a critical noxious odor problem threatening closure of the Naples Landfill in Collier County. Implementation of the recommendations and a comprehensive odor monitoring program, including trained local residents, resulted in the successful control of odors from the landfill.	<input type="checkbox"/> Check if project performed with current firm NA	<input type="checkbox"/> Check if project performed with current firm NA
d. (1) TITLE AND LOCATION (City and State) Collier County: General Solid Waste Consulting / Naples FL. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project manager for more than thirty solid waste projects related to all phases of solid waste management, including the development of the County's integrated solid waste management strategy, managing procurements, contract negotiations, long-term planning, and presentations to the Board of County Commissioners.	<input type="checkbox"/> Check if project performed with current firm NA	<input type="checkbox"/> Check if project performed with current firm NA
e. (1) TITLE AND LOCATION (City and State) Lee County: Transfer Station Design / Fort Myers FL. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager for the design of a new 47,000 sq. ft., three chute transfer station adjacent to the Lee County WTE Facility. The facility is used to transfer excess solid waste to the Hendry County Landfill during extended downtime of the WTE plant and excess material exceeding the WTE capacity. Maximum capacity of the transfer station is approximately 1,800 tons per day.	<input type="checkbox"/> Check if project performed with current firm NA	<input type="checkbox"/> Check if project performed with current firm NA

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Andre Dieffenthaler	13. ROLE IN THIS CONTRACT Principal-In-Charge	14. YEARS EXPERIENCE	
		a. TOTAL 21	b. WITH CURRENT FIRM 15
15. FIRM NAME AND LOCATION (City and State) Tampa, Florida			
16. EDUCATION (DEGREE AND SPECIALIZATION) BS Civil Engineering Princeton University 1990 MS Civil Engineering Rutgers University, New Brunswick 1993		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Professional Engineer (Florida)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Health & Safety Training for Project Management; Health and Safety Orientation Project Leadership and Management Program; Project Management Training (2008); Report Management and Technical Writing			

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Charlotte County: Burnt Store Reverse Osmosis WTP Expansion Plan / Port Charlotte FL.	2009	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [] Check if project performed with current firm Technical advisor of the RO Plant Expansion Plan Project, which includes expansion of the membranes, high service pumps, transfer pumps, degassifier, new 1 MG ground storage tank, yard piping modifications, electrical and controls. Project also determined population projections and projected demands to identify the build out requirements. (\$2.6 M fee)		
b.	City of Miramar: West Water Treatment Expansion Design / Miramar FL	2008	2010
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [] Check if project performed with current firm Design manager for the 2.0 mgd RO WTP expansion of a 9 mgd membrane softening plant, including well pumps, booster pumps, degassifier, transfer pumps, high service pumps, deep injection well pumps, chemical feed systems, electrical and controls. (\$949,765 fee)		
c.	City of Bay City: Simultaneous Compliance Evaluation/Bay City, MI	2009	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [] Check if project performed with current firm Project Manager for the evaluation of corrosion control and related simultaneous compliance treatment alternatives for a 40 MGD WTP. The assessment re-established optimum CCT practices – while maintaining compliance with other critical regulatory requirements and water quality goals such as coagulation and softening, scale stability/aesthetics, disinfection, disinfection by products and residuals handling. (\$120K)		
d.	Tampa Bay Water: Lithia Hydrogen Sulfide Removal Facility	Ongoing	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [] Check if project performed with current firm Project Manager for the design and permitting of a 45 MGD side stream ozonation facility. The Lithia HSRF will be an ozone treatment plant that will be constructed to replace the existing cascade aerators at the Lithia WTP for hydrogen sulfide (H ₂ S) removal. This project includes design raw water piping, onsite ozone generation, liquid oxygen (LOX) storage, oxygen vaporization, sidestream injection, and electrical generators. (\$1.4 M fee)		
e.	Tampa Bay Water: Hillsborough Joint Project Agreement / Tampa, FL	2004	2005
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [] Check if project performed with current firm Project Manager for the design, permitting, and construction administration of chemical system enhancements at the Hillsborough County Lake Park Northwest and Tampa/Hillsborough Interconnect Water Treatment Facilities. The project is part of a joint agreement between Tampa Bay Water and Hillsborough County to install interconnect piping and chemical feed facilities including sodium hypochlorite, sodium hydroxide, ammonia, and fluoride chemical feed systems at each site. (\$263,571 fee)		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Stephen Schwarz	13. ROLE IN THIS CONTRACT QA/QC	14. YEARS EXPERIENCE	
		a. TOTAL 43	b. WITH CURRENT FIRM 43

15. FIRM NAME AND LOCATION (City and State)
Malcolm Pirnie, Inc., Fort Lauderdale, FL

16. EDUCATION (DEGREE AND SPECIALIZATION)

BCE Civil Engineering City College of New York 1967
MSE Sanitary Engineering Manhattan College 1968

17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)

Professional Engineer (Z)(FL)(MA)(NC)(NY)(PA)(SD)(VA)
Board Certified Environmental Engineer (BCEE)

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

American Academy of Environmental Engineers, Chairman of Solid Waste Testing Committee and Solid Waste Management Subcommittee; American Public Works Association; American Society of Civil Engineers, Chair, Ad Hoc Comm. on Dioxin & Resource Recovery, Vice Chair, Comm. on Resource & Energy Recovery; American Society of Mechanical Engineers, Member, Solid Waste Processing Division; New York State Association for Solid Waste Management; Solid Waste Association of North America; Solid Waste Combustion Institute

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	<p>Solid Waste Authority of Palm Beach County: North County Resource Recovery Facility and Materials Recycling Facility Consulting Engineering Services / West Palm Beach, FL</p> <p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Officer for the operations monitoring program for the refuse-derived fuel (RDF) waste-to-energy facility and the materials recycling facility. Activities include performing facility inspections of the North County Resource Recovery Facility and the Residential Materials Recycling Facility. This includes assessing the operation of the facilities, as well as addressing safety concerns, maintenance issues, environmental compliance, and adherence to service agreements. Cost: \$1,177,456</p>	Ongoing	N/A
b.	<p>Solid Waste Authority of Palm Beach County: North County Resource Recovery Facility Refurbishment Support / West Palm Beach, FL</p> <p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Serves as Project Officer responsible for procurement of a design-build contractor to perform the \$200M refurbishment of the Authority's 2,000-ton-per-day North County Resource Recovery Facility, which consists of engineering, procurement, demolition, and reconstruction of two 1,000-ton-per-day waste-to-energy process units including boilers, air pollution control equipment, and control systems. Cost: \$4,038,357</p>	Ongoing	N/A
c.	<p>Solid Waste Authority of Palm Beach County: New Waste-to-Energy Facility and Owner's Agent Services / West Palm Beach, FL</p> <p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Currently serves as Project Officer with the overall responsibility for the planning, permitting, procurement, financing, public outreach, and conceptual design for the overall implementation of a new 3,000-ton-per-day waste-to-energy facility adjacent to the authority's existing North County Resource Recovery Facility (NCRRF). Cost: \$4,769,100</p>	Ongoing	N/A
d.	<p>Broward County Waste and Recycling Services: Operations Monitoring and Solid Waste Management Program / Broward County FL</p> <p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Responsible for the initial planning and development of a countywide solid waste management program, including two waste-to-energy facilities totaling 4,500 tpd in capacity. Both facilities have been in operation since 1991. This program is believed to be the largest of its kind ever undertaken in North America, with a total cost exceeding \$700 million, and in 1991 was the recipient of the Grand Conceptor Award from the Florida Chapter of the ACEC. Cost: \$ 12,905,990</p>	Ongoing	N/A
e.	<p>Solid Waste Authority of Palm Beach County: Ferrous Processing Facility Procurement Support / West Palm Beach FL</p> <p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Responsible for development of a design criteria package to specify performance-based criteria for the relocation and construction of the new Ferrous Processing Facility (FPF). Responsible for development of the PPSA Petition for the relocation and construction effort. Responsible for development of detailed design and bid documents necessary to construct the new FPF. Cost: \$1,489,973</p>	2010	N/A

erE. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Leah Richter	13. ROLE IN THIS CONTRACT QA/QC	14. YEARS EXPERIENCE <table border="1"> <tr> <td>a. TOTAL 14</td> <td>b. WITH CURRENT FIRM 14</td> </tr> </table>		a. TOTAL 14	b. WITH CURRENT FIRM 14
a. TOTAL 14	b. WITH CURRENT FIRM 14				
15. FIRM NAME AND LOCATION (City and State) Malcolm Pirnie, Inc., Fort Lauderdale, FL					
16. EDUCATION (DEGREE AND SPECIALIZATION) BS Environmental Engineering University of Florida 1997 M.Sc. Civil Engineering Florida Atlantic University 2002		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Professional Engineer (FL)			
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) AWWA Security Planning for Drinking Water Systems: An Operational Approach; OSHA 7600 Disaster Site Worker; Preparing for and Responding to Terrorism/Weapons of Mass Destruction Incidents; Risk Assessment Methodology for Water (SM)					

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
a.	Solid Waste Authority of Palm Beach County: New Waste-to-Energy Facility and Owner's Agent Services / West Palm Beach FL (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Serves as Project Manager for the planning, permitting, procurement, financing, public outreach, and conceptual design for the overall implementation of a new 3,000-ton-per-day waste-to-energy facility adjacent to the authority's existing North County Resource Recovery Facility (NCRRF). Key activities include development of a request for qualifications and request for proposals of a design-build-operator, development of application documents required under the Power Plant Siting Act, development of a design criteria package to be utilized during the procurement process, and overall program management activities to support the development of this estimated \$700M capital project, the first of its kind in more than 15 years. Cost: \$6,298,890	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (If applicable) N/A
b.	Solid Waste Authority of Palm Beach County: Plant Inspections / West Palm Beach FL (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Serves as Project Manager for the operations monitoring program for the refuse-derived fuel (RDF) waste-to-energy facility and the materials recycling facility. Responsible for overall project management and assists with performing facility inspections of the NCRRF and the RMRF. This includes assessing the operation of the facilities, as well as addressing safety concerns, maintenance issues, environmental compliance, and adherence to service agreements. Cost: \$1,177,456	PROFESSIONAL SERVICES 2008	CONSTRUCTION (If applicable) N/A
c.	Solid Waste Authority of Palm Beach County: MRF Relocation Design, Permitting, and Procurement Support / West Palm Beach FL (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Served as Project Manager for a fatal flaw analysis and subsequent design and permitting efforts associated with the Authority's relocation of its RMRF. These projects were a follow-on to our preliminary conceptual design and consisted of conducting a constraints and limitations analysis to assess the feasibility of site development as related to permitting, geotechnical, environmental, scheduling, and cost considerations, as well as serving as the Authority's Design Criteria Professional in the procurement of a design/build contractor to complete the construction. We also provided design review support and developed all the necessary permitting application documents in order to obtain the associated environmental regulatory approvals to construct the relocated facility. Cost: \$ 776,930	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (If applicable) N/A
d.	Solid Waste Authority of Palm Beach County: Ferrous Processing Facility Procurement Support / West Palm Beach FL. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager responsible for development of a design criteria package to specify performance-based criteria for the relocation and construction of the new Ferrous Processing Facility (FPF). Project Manager responsible for development of the PPSA Petition for the relocation and construction effort. Project Manager responsible for development of detailed design and bid documents necessary to construct the new FPF. Cost: \$1,489,973	PROFESSIONAL SERVICES 2010	CONSTRUCTION (If applicable) N/A

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Sherman "Pat" Patton	13. ROLE IN THIS CONTRACT Operations & Maintenance	14. YEARS EXPERIENCE <table border="1"> <tr> <td>a. TOTAL</td> <td>b. WITH CURRENT FIRM</td> </tr> <tr> <td>39</td> <td>14</td> </tr> </table>		a. TOTAL	b. WITH CURRENT FIRM	39	14
a. TOTAL	b. WITH CURRENT FIRM						
39	14						
15. FIRM NAME AND LOCATION (City and State) Malcolm Pirnie, Inc., Sarasota, FL							
16. EDUCATION (DEGREE AND SPECIALIZATION)		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)					
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) ASME-Certified Resource Recovery Plant Operator; Construction Safety 10 Hr; Ergonomics; Health and Safety Orientation; TVA thermal power system apprenticeship: utility plant design, operations, and maintenance, 1972; American Society of Mechanical Engineers; Integrated Waste Services Association							

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State) Solid Waste Authority of Palm Beach County: Consulting Engineering for North County Resource Recovery Facility / West Palm Beach FL	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (If applicable)
a.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Performed plant inspections of the North County RDF Resource Recovery Facility and the North Materials Recycling Facility. This includes assessing the operation of the facilities, and addressing safety concerns, maintenance issues, and environmental compliance. Coordinates and prepares annual reports / certifications. These reports include analysis of operating trends, assessments of facility physical conditions, and opinions of environmental compliance and maintenance practices. Cost: \$ 6,298,890	[x] Check if project performed with current firm	
	(1) TITLE AND LOCATION (City and State) City of Tampa: McKay Bay Operations Monitoring / Tampa FL	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (If applicable) N/A
b.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Responsible for providing design and specifications for equipment covered in the retrofit of the McKay Bay Refuse-to-Energy Facility and operations monitoring for the ongoing O&M Agreement. Responsibilities includes providing detailed outage inspection reports, monthly Facility inspections, monthly performance evaluations, and providing Annual Report to trustees. Cost: \$12,062,519	[x] Check if project performed with current firm	
	(1) TITLE AND LOCATION (City and State) Broward County Waste and Recycling Services: Operations Monitoring and Solid Waste Management Program / Broward County FL	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (If applicable) N/A
c.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Coordinates and prepares annual reports / certifications. These annual reports include analyses of operating trends, assessments of facility physical conditions, and opinions of environmental compliance and maintenance practices. Performed major equipment outage inspections and provides detailed inspection reports of activities and equipment conditions. Performed plant inspections for compliance with Service / Operations Agreements, environmental permits, applicable codes, and sound engineering practices. Inspections include the review of outage activities and maintenance and control room log books. Cost: \$ 12,905,990	[x] Check if project performed with current firm	
	(1) TITLE AND LOCATION (City and State) City of Tampa: McKay Bay Waste to Energy Facility / Tampa FL	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES N/A	CONSTRUCTION (If applicable) N/A
d.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE As Assistant Plant Manager was responsible for the day-to-day operations and maintenance of a 1,000-tpd WTE facility. Coordinated the efforts of prime contractor, equipment suppliers, and vendors to complete start-up and shake-down phase. Interviewed and hired managers, supervisors, operators, and mechanics. Established policies and procedures, operations and maintenance manuals, and implemented on-line preventative maintenance and inventory control programs. Established annual O&M and capital improvement budgets and responsible for maintaining cost controls. Cost: N/A	[] Check if project performed with current firm	
	(1) TITLE AND LOCATION (City and State) Lee County: Recovered Materials Processing Facility / Lee County FL	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES 2002	CONSTRUCTION (If applicable)
e.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Performed plant inspections for compliance with Service / Operations Agreements, environmental permits, applicable codes, and sound engineering practices. Inspections include the review of outage activities and maintenance and control room log books. Cost: \$ 652,230	[] Check if project performed with current firm	

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT*(Complete one Section E for each key person.)*

12. NAME Michael DeLoach	13. ROLE IN THIS CONTRACT Operations & Maintenance	14. YEARS EXPERIENCE	
		a. TOTAL 1	b. WITH CURRENT FIRM 1
15. FIRM NAME AND LOCATION (City and State) Malcolm Pirnie, Inc., Sarasota, FL			
16. EDUCATION (DEGREE AND SPECIALIZATION) Program completed in AA General Education Tallahassee Community College 2005 BSChE Engineering Design University of South Florida 2009		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Construction Safety 10 Hr; Confined Space Entry; Fall Protection; Initial 40 Hour Hazardous Waste Operations Safety Training Medical			

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Solid Waste Authority of Palm Beach County: Consulting Engineering for North County Resource Recovery Facility / West Palm Beach FL.	Ongoing	Estimated 2011
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [x] Check if project performed with current firm Serves as engineer during the refurbishment of the 2000 tpd refuse-derived-fuel (RDF) waste-to-energy facility owned by the Solid Waste Authority of Palm Beach County. Assists the resident engineer with daily monitoring of demolition and construction activities, document review, and financial analysis. This work includes generation of daily and weekly monitoring reports, contract overview and analysis to determine compliance of the design/build contractor with the contract documents, construction turnover package review, and oversight of commissioning and startup testing. Cost: \$6,298,890		
b.	Solid Waste Authority of Palm Beach County: New Waste-to-Energy Facility and Owner's Agent Services/ West Palm Beach FL.	Ongoing	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [x] Check if project performed with current firm Assisted with the development of RFP documents and design criteria for the construction of a 3000 tpd mass burn waste-to-energy facility in development by the Solid Waste Authority of Palm Beach County. Also assisted with initial technical review of proposals received from vendors in response to the RFP. Cost: \$4,769,100		
c.	City of Tampa: McKay Bay Operations Monitoring / Tampa FL.	Ongoing	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [x] Check if project performed with current firm Serves as an engineer for the operations monitoring and environmental compliance of the 1000 tpd mass burn waste-to-energy facility and attached transfer station owned by the City of Tampa. Assists with annual and monthly facility inspections, monitoring of maintenance and outages, spare parts inventory, punchlist generation, and facility safety and environmental compliance. This work includes generation of monthly and annual reports, compilation and trend analysis of operating data and associated facility pass-through costs, and assisting the City of Tampa's Solid Waste and Environmental Program Management Office with various financial analysis and invoice review, contract interpretation, and environmental programs. Cost: \$12,062,519		
d.	Lake County: Solid Waste Engineering and Operations Monitoring Services / Tavares FL.	Ongoing	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [] Check if project performed with current firm Serves as engineer for the operations monitoring and environmental compliance of the 550 tpd mass burn waste-to-energy facility owned by Lake County. Assists with facility inspections during major environmental and maintenance events. This work includes generation of quarterly and annual reports, compilation and trend analysis of operating data and associated facility pass-through costs, and assisting Lake County's Solid Waste Division with various financial analysis, contract interpretation, and environmental programs. Cost: \$1,516,045		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Antonio Guillen	13. ROLE IN THIS CONTRACT Operations & Maintenance	14. YEARS EXPERIENCE	
		a. TOTAL 21	b. WITH CURRENT FIRM 3
15. FIRM NAME AND LOCATION (City and State) Ft. Lauderdale, Florida			
16. EDUCATION (DEGREE AND SPECIALIZATION) Graduate studies in BSME Mechanical Engineering Florida International University 1979		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Professional Engineer (Florida) ASME-Certified Resource Recovery Plant Operator Certified Project Management Professional (PMP)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Professional Engineer; ASME-Certified Resource Recovery Plant Operator; Certified Project Management Professional (PMP);			

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Bond Engineering Services / Miami, Florida Daily monitoring of the operation and maintenance of the Miami-Dade Resources Recovery Facility. Monthly and Annual Inspection Reports. Cost \$1,220,000	Ongoing	
b.	Miami-Dade Dept. of Solid Waste Mgmt: DSWM Bond Eng RRF / Miami FL Daily monitoring of Miami-Dade Resources Recovery Facility.		
c.	Miami-Dade Solid Waste Management: MDSWM Munisport and Homestead Landfills Closure Oversight / Miami FL. Oversight of landfills closure and approval of draw requests.		
d.	Miami-Dade Solid Waste Management: MDSWM Munisport and Homestead Landfills Closure Oversight / Miami FL. Manager of the Engineering Department		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME Christopher Tilman	13. ROLE IN THIS CONTRACT Operations & Maintenance	14. YEARS EXPERIENCE	
		a. TOTAL 15	b. WITH CURRENT FIRM 11
15. FIRM NAME AND LOCATION (City and State) Ft. Myers, Florida			
16. EDUCATION (DEGREE AND SPECIALIZATION) BS Environmental Science Auburn University 1994 MS Environmental Analysis/Technology Troy State University 1997 BCE Civil Engineering Auburn University 2000		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Professional Engineer (FL)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Risk Assessment Methodology for Water (SM)			

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	McKay Bay Retrofit/Reconstruction Project / Tampa, Florida	Ongoing	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [] Check if project performed with current firm Engineer of Record for the 2005 Title V Air Operation Permit Renewal for the McKay Bay Refuse-to-Energy Facility, a 1,000 tpd WTE plant. Responsible for the preparation of the permit application, including technical verification of facility equipment and operating parameters, CAM plan development, and other regulatory issues. Cost \$ 12,062,519 (fee)		
b.	Lee County Solid Waste Division: Lee County Transfer Station / Fort Myers FL.	NA	NA
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [] Check if project performed with current firm Assisted in the design of a new 47,000 sq. ft. transfer station adjacent to the Lee County WTE Facility. Design work included engineering calculations, ADICPR modeling, permitting, and technical specifications of the modified storm water system to serve the 24.6-acre property.		
c.	Lee County: MRF Relocation / Fort Myers FL.	NA	NA
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [] Check if project performed with current firm Assisted in the design of a new 64,000 square foot Recycled Materials Processing Facility adjacent to the Lee County WTE Facility. Design work included processing equipment CAD layouts, engineering calculations, ADICPR modeling, SFWMD permitting, and technical specifications for the modified storm water system to serve the 11-acre property.		
d.	Waste Management, Inc.: Environmental and Safety Compliance / Opelike AL and Graceville FL	NA	NA
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [] Check if project performed with current firm Managed all environmental and safety compliance programs at a Class I landfill, hauling companies, and transfer facilities. Experienced with RCRA, CERCLA, SARA, TSCA, OSHA and EPA regulations, storm water monitoring and sampling, and monitoring well data analysis.		
e.	Collier County: Collier NLF Contract / Naples FL	NA	NA
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [] Check if project performed with current firm Deputy Project Manager, responsible for monthly inspections of the Naples Landfill and supplemental inspections of the Immokalee Landfill. Inspections included on-site reviews of working face operations, C&D transfer operations, cell redevelopment activities, stormwater controls, gas management system operations, and County operations to ensure compliance with FDEP regulations and County contracts.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT*(Complete one Section E for each key person.)***12. NAME****Garth White****13. ROLE IN THIS CONTRACT****Operations & Maintenance****14. YEARS EXPERIENCE**

a. TOTAL

9

b. WITH CURRENT FIRM

6**15. FIRM NAME AND LOCATION (City and State)****Ft. Lauderdale, Florida****16. EDUCATION (DEGREE AND SPECIALIZATION)****BS Mechanical Engineering California State University, Chico 2003****17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)****Construction Safety 10 Hr****18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)****Construction Safety 10 Hr****19. RELEVANT PROJECTS**

(1) TITLE AND LOCATION (City and State)		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	<p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE</p> <p>Serves as project engineer for the refurbishment of this refuse-derived-fuel (RDF) waste-to-energy facility. Assists with demolition and construction document review and coordination and oversight of demolition and construction activities. Responsibilities include construction document management, daily construction oversight, and assistance with contract compliance review of the design/build contractor. Cost \$11,067,990</p>	Ongoing	
b.	<p>(1) TITLE AND LOCATION (City and State)</p> <p>Broward County Waste and Recycling Services Operations Monitoring and Solid Waste Management Program / Broward County, Florida</p> <p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE</p> <p>Planned and managed a MRF residue composition analysis in order to determine the amount of program materials that are being disposed of instead of recycled. This project required a large coordination effort on my part with Broward County officials, Wheelabrator, and Waste Management. Responsible for:</p> <ul style="list-style-type: none">• Preparation of a MRF residue composition analysis protocol.• Scheduled residue deliveries.• Presentation of policies, procedures, and safety briefings to a field team of seven temporary workers.• Sorting of approximately 1,000 pounds of residue in one-day.• Preparation of a cost estimate which included all components of the projects.• Preparation of a final report to the client which summarized the activities and findings performed. Cost \$12,905,990	Ongoing	
c.	<p>(1) TITLE AND LOCATION (City and State)</p> <p>Solid Waste Authority of Palm Beach County: Operations Monitoring / West Palm Beach FL.</p> <p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE</p> <p>Serves as project engineer for the operations monitoring program for the refuse-derived-fuel (RDF) waste-to-energy facility. Assists with performance of facility inspections, and environmental reports review and annual report preparation for the North County RDF Resource Recovery Facility. The work includes assessing the operation of the facilities, as well as addressing safety concerns, maintenance issues, and environmental compliance, and preparing related reports.</p>	NA	NA
d.	<p>(1) TITLE AND LOCATION (City and State)</p> <p>Broward County Waste and Recycling Services: Waste-to-Energy Facility Operations Monitoring / Fort Lauderdale FL</p> <p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE</p> <p>Updated the trend analysis prepared for both the North and South Facility which summarized the performance of each facility since the operation of the facilities commenced. The final report included the following: overview of processed waste, delivered waste, power production, downtime, ash production, emissions, and metals recovery for each facility through the current year of operations.</p>	NA	NA

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Timothy J. Therriault	13. ROLE IN THIS CONTRACT Operations & Maintenance	14. YEARS EXPERIENCE <table border="1"> <tr> <td>a. TOTAL</td> <td>b. WITH CURRENT FIRM</td> </tr> <tr> <td>3</td> <td>3</td> </tr> </table>		a. TOTAL	b. WITH CURRENT FIRM	3	3
a. TOTAL	b. WITH CURRENT FIRM						
3	3						
15. FIRM NAME AND LOCATION (City and State) Malcolm Pirnie, Inc., Fort Lauderdale, FL							
16. EDUCATION (DEGREE AND SPECIALIZATION) Program completed in BSCEE Environmental Engineering Wentworth Institute of Technology 2005		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)					
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Construction Safety 10 Hr; Initial 40 Hour Hazardous Waste Operations Safety Training; Medical							

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a. (1) TITLE AND LOCATION (City and State) Solid Waste Authority of Palm Beach County: NCRRF Refurbishment – Construction Phase	(2) YEAR COMPLETED Ongoing		
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm Provided on-site night shift construction oversight during the demolition and construction phases of the RRF refurbishment with the assistance of local office staff members, which include nightly status updates, field logs, work force and equipment observations, and schedule and design compliance reviews. Conducted reviews and provided comments for system turnover packages. Conducted system walkdown inspections and compiled a master punchlist. Cost: \$1,568,400			
b. (1) TITLE AND LOCATION (City and State) Solid Waste Authority of Palm Beach County: NCRRF Ongoing Inspections	(2) YEAR COMPLETED Ongoing		N/A
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm Assisted local staff members in conducting Semi-Annual and Annual Inspections to ensure that the Operator operates the Facility using the most recent industry standards and practices, and assisted in the development of the corresponding reports. Cost: \$64,450			
c. (1) TITLE AND LOCATION (City and State) Broward County Waste and Recycling Services: Solid Waste Management Program: WSB PACIS Installation	(2) YEAR COMPLETED 2010		N/A
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm Independently developed the Service Agreement between Wheelabrator and WRS. Independently developed the Final Construction Completion Package, which included gathering all documentation and forming MPI's opinion of the design, installation and operation of the PACIS at WSB. Cost: \$59,888			
d. (1) TITLE AND LOCATION (City and State) Broward County Waste and Recycling Services: Operations Monitoring and Solid Waste Management Program	(2) YEAR COMPLETED Ongoing		N/A
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm Responsible for inspections of Waste-to-Energy Facilities throughout Broward County, Florida. Inspections are conducted for safety, cleanliness, structural integrity, and operational and maintenance procedures for compliance with operational requirements. Compiled monthly, quarterly, semi-annual and annual reports, photo logs and generated punchlists of the inspections performed. Responsibilities also include mediating meetings between the client and the contractor. Cost: \$12,905,990			
e. (1) TITLE AND LOCATION (City and State) Miami-Dade County Dept. of Solid Waste Mgmt: RRF Operations Monitoring	(2) YEAR COMPLETED Ongoing		N/A
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm Assisted MIA and local staff members in conducting facility inspections to ensure that the Operator operates the Facility using the most recent industry standards and practices. Conducted reviews and provided comments for the Monthly Observations Reports. Cost: \$354,292			

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Amit Chattopadhyay	13. ROLE IN THIS CONTRACT Mechanical & Thermal	14. YEARS EXPERIENCE <table border="1"> <tr> <td>a. TOTAL</td> <td>b. WITH CURRENT FIRM</td> </tr> <tr> <td>46</td> <td>24</td> </tr> </table>		a. TOTAL	b. WITH CURRENT FIRM	46	24
a. TOTAL	b. WITH CURRENT FIRM						
46	24						
15. FIRM NAME AND LOCATION (City and State) Malcolm Pirnie, Inc., Fair Lawn, NJ							
16. EDUCATION (DEGREE AND SPECIALIZATION) BME Mechanical Engineering Jadavpur University, India 1964 MS Mechanical Engineering University of Colorado, Boulder 1967		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Professional Engineer (FL)(NY) Board Certified Environmental Engineer (BCEE)					
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Technical Program Chairman, ASME 1996 Seventeenth Biennial Waste Processing Conference Chairman, ASME - Solid Waste Processing Division (1998-1999)							

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Solid Waste Authority of Palm Beach County: Consulting Engineering for North County Resource Recovery Facility / West Palm Beach FL.	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (If applicable)
a. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm In the context of Facility operating life and operator term extension, provided technical review and cost estimating assistance for the retrofit and repairs to the existing RDF Facility for negotiation with the current Facility operator. Conducted a comprehensive assessment to define the scope of a refurbishment to provide for an additional 20-year operating term. Cost: \$6,298,890		
Solid Waste Authority of Palm Beach County: New Waste-to-Energy Facility and Owner's Agent Services / West Palm Beach FL.	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (If applicable)
b. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm Provided technical support in performance of Fatal Flaw Analysis of the project in planning stage. Currently providing preliminary health risk analysis support. Cost: \$4,769,100		
City of Tampa: McKay Bay Operations Monitoring / Tampa FL.	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (If applicable)
c. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm Performed conceptual design and prepared procurement documents for the retrofit of 22-MW waste-fired steam power plant to meet Clean Air Act standards. The facility has four 58,000 pph, 600 psig boilers which will be retrofitted with new design superheaters and economizers. Scrubber baghouse will replace the existing electrostatic precipitators. New CEMS will be installed. Retrofit construction has started. Cost: \$12,062,519		
Lee County: Energy Recovery Facility Operations Monitoring and Expansion Services / Fort Myers FL.	PROFESSIONAL SERVICES 2006	CONSTRUCTION (If applicable)
d. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm Provided technical assistance in defining facility expansion design criteria. Provided engineering support for the preparation of the air permit application documents for EPA and FLDEP. As owner's agent, performed design review and supported acceptance testing and operations monitoring of the 2x600-tpd, 40-MW plant. The plant uses treated wastewater for cooling tower makeup. Cost: \$5,140,739		
Broward County Waste and Recycling Services: Waste-to-Energy Services / Broward County FL.	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (If applicable)
e. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <input type="checkbox"/> Check if project performed with current firm For the two 2,250-tpd waste-to-energy facilities, provided operations monitoring service and turbine-generator overhaul inspection. Provided technical review for design change from electrostatic precipitator to scrubber-baghouse for air pollution control. Cost: \$12,905,990		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Joseph J. Krupa		13. ROLE IN THIS CONTRACT Mechanical & Thermal		14. YEARS EXPERIENCE	
				a. TOTAL 17	b. WITH CURRENT FIRM 15
15. FIRM NAME AND LOCATION (City and State) Malcolm Pirnie, Inc., White Plains, NY					
16. EDUCATION (DEGREE AND SPECIALIZATION) BS Mechanical Engineering North Carolina State University 1993 ME Environmental Engineering Manhattan College 1996			17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Professional Engineer (NY) Certified Construction Documents Technologist (CDT)		
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Construction Safety Awareness; Construction Safety 10 Hr; Initial 40 Hour Hazardous Waste Operations Safety Training Lookout/Tagout; Health & Safety Training for Project Management; Health and Safety Orientation; Unexploded Ordnance (UXO) remediation site training					

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)		(2) YEAR COMPLETED	
Solid Waste Authority of Palm Beach County: North County Resource Recovery Facility Refurbishment Support / West Palm Beach, FL		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (If applicable) N/A
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Serves as Project Manager responsible for procurement of a design-build contractor to perform the \$200M refurbishment of the Authority's 2,000-ton-per-day North County Resource Recovery Facility, which consists of engineering, procurement, demolition, and reconstruction of two 1,000-ton-per-day waste-to-energy process units including boilers, air pollution control equipment, and control systems. Key activities includes preparing the request for qualifications documents and supporting the authority in the evaluation, selection, and negotiations of the engineering, procurement, and construction services agreement with the selected vendor. Currently providing technical construction oversight and management as part of the design-build effort. Also responsible for the regulatory approval process which included development of the Power Plant Siting Act documentation as well as the Air Construction Permit application. Cost: \$ 6,298,890		<input type="checkbox"/> Check if project performed with current firm	
a.			
(1) TITLE AND LOCATION (City and State)		(2) YEAR COMPLETED	
Solid Waste Authority of Palm Beach County: SWA New WTE Facility / West Palm Beach FL		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (If applicable) N/A
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE As part of the constraints and limitations analysis for siting a New Proposed 3,000 tpd WTE Facility adjacent to the Authority's North County Resource Recovery Facility (NCRRF), determined potable, well and reuse water demand for the Proposed WTE Facility, assisted in the development of the conceptual site layouts, developed a planning level schedule for the construction of the Proposed WTE Facility, and assisted with the cash flow analysis and bond financing review. As part of the procurement services for the New WTE Facility, reviewed the technical statements of qualifications issued by vendors; managed the preparation of the design criteria for the new WTE Facility draft and final Request For Proposals (RFP). Participated in the vendor review meetings on the RFP, Agreements, and Design Criteria. Prepared responses to vendor comments through the addendum. Cost: \$ 4,769,100		<input type="checkbox"/> Check if project performed with current firm	
b.			
(1) TITLE AND LOCATION (City and State)		(2) YEAR COMPLETED	
Union County Utilities Authority: Resource Recovery Facility: Operations and Maintenance Monitoring / Union County NJ.		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (If applicable) N/A
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Provided engineering services for the O&M monitoring of a 1,540-tpd waste-to-energy facility. Responsibilities included database preparation and facility data manipulation with respect to waste processed and received, steam production, electric generation, and equipment downtime. Conducted monthly facility inspections and inspections during major equipment outages. Monitored compliance with contract and permit conditions, prepared for and attended monthly operations and environmental issues meetings, assessed the operations of the major components (e.g., material recovery facility, hauling contractor facilities, ash disposal landfill) of the Solid Waste Management Plan, reviewed invoices, evaluated bids for the processing of waste, and assisted the authority in preparing for the annual public meeting. Prepared various reports, including: facility assessment and general condition, operations monitoring, outage and feasibility engineer's report preparation; project management activities; and inspections of a material recovery facility, two landfills, the ash hauler, and the installation of the ash conditioning system, and air-cooled condenser addition. Cost: \$ 3,194,865		<input type="checkbox"/> Check if project performed with current firm	
c.			

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Thomas Henderson	13. ROLE IN THIS CONTRACT Service Agreement Compliance & Financial	14. YEARS EXPERIENCE	
		a. TOTAL 39	b. WITH CURRENT FIRM 2

15. FIRM NAME AND LOCATION (City and State)

Malcolm Pirnie, Inc., West Palm Beach, FL

16. EDUCATION (DEGREE AND SPECIALIZATION)

AA Liberal Arts Miami-Dade College 1967

17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

Florida International University: Change Management; George Washington University: Project Management (four courses); Oregon State University: Engineering Economics; Studies tow. BA in Political Science/History, Florida State University, 1967-1970; Gold Key Honorary University of Miami: Purchasing; University of Wisconsin Madison: Solid Waste Management;

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Solid Waste Authority of Palm Beach County: SWA New WTE Facility / West Palm Beach FL	Ongoing	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Provided support to the Authority in negotiating and drafting an Engineering, Procurement and Construction Services Agreement for the refurbishment of the 2,000 ton per day North County Resource Recovery Facility. Agreement covered the engineering, procurement, demolition and reconstruction of two 1,000 ton per day Waste-To-Energy process units including boilers, air pollution control equipment and control systems. The cost plus a fixed fee agreement had an estimated value of \$200 million. Cost: \$2,875,457		
b.	Solid Waste Authority of Palm Beach County: Consulting Engineering for North County Resource Recovery Facility / West Palm Beach FL	Ongoing	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Task leader on development of RFQ and RFP packages for a 3,000 ton per day Waste-To-Energy (WTE) Facility. Scheduled to be operational in 2015, this is the largest WTE project currently under development worldwide. Three potential Design Build Operate firms, Babcock and Wilcox, Covanta Energy and Wheelabrator Technologies, have been short listed. A RFP was issued in February 2010 and proposals were received from the shortlisted firms in June 2010. An award is expected in late 2010. Estimated cost of the project is more than \$750 million. Cost: \$6,298,890		
c.	Solid Waste Authority of Palm Beach County: New Waste-to-Energy Facility and Owner's Agent Services / West Palm Beach FL	Ongoing	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Task Leader on completing the Power Plant Siting Act application for a proposed 3,000 ton per day, 100 MW Waste-To-Energy Facility. Under Florida Law, all electrical power plants with capacity of more than 75 MW must be certified under a consolidated siting and permitting process. All state, regional and local government permitting including solid waste management, land use and zoning, consumptive water use and stormwater permitting are included. Federal permits including those under the Prevention of Significant Deterioration (PSD) air and National Pollutant Discharge Elimination System (NPDES) stormwater permitting programs are coordinated within this consolidated process. Cost: \$4,769,100		
d.	Real Estate Div. Baltimore Dist. USACE: Fort Riley WTE Fatal Flaw Analysis / Fort Riley KS.	2009	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Lead the feasibility evaluation of leasing a land parcel at Fort Riley, Kansas, for development of a Waste-To-Energy (WTE) facility. This analysis for Fort Riley and U.S. Army Corps of Engineers focused on the cost and demand for solid waste disposal near Fort Riley along with the demand for electrical energy. A conceptual WTE facility was modeled and evaluated to see if any fatal flaws could be identified. Several potential fatal flaws related to project cost and contracting framework were found and project has been placed on hold. Identifying these potential problems at a very early project stage significantly benefited the client. Cost: \$ 80,000		
e.	Broward County: Director, Office of Integrated Waste Management / Broward County FL	N/A	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Office provided a wide range of solid waste management services to 24 municipalities, county unincorporated area, and public school and community college districts. Services provided included waste disposal at landfills and waste-to-energy facilities, waste collection, recycling, household hazardous waste, waste tire management, and lot clearing. Office operated as an enterprise fund with a Fiscal Year 1999 budget of \$119 million for operations, \$6.4 million for debt service, and \$10.5 million for capital improvements. Cost: N/A		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Aubrey Haudricourt	13. ROLE IN THIS CONTRACT Electrical & DCS	14. YEARS EXPERIENCE	
		a. TOTAL 32	b. WITH CURRENT FIRM 14

15. FIRM NAME AND LOCATION (City and State)

Malcolm Pirnie, Inc., Tampa, FL

16. EDUCATION (DEGREE AND SPECIALIZATION)

Graduate studies in BSE Electrical Engineering Old Dominion University 2000

17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)

Professional Engineer (AL)(FL)(VA)
AutoCAD 2005
NCEES Certified Examiner for Engineering and Surveying
National Council of Examiners for Engineering and Surveying
PADI Certified Advanced Open Water Diver

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

Construction Safety 10 Hr
Electrical Hazards and NFPA 70E Overview

19. RELEVANT PROJECTS

	(2) YEAR COMPLETED	
(1) TITLE AND LOCATION (City and State)	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a. Solid Waste Authority of Palm Beach County: MRF Design Criteria / West Palm Beach FL (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [] Check if project performed with current firm Malcolm Pirnie served as the Solid Waste Authority of Palm Beach County's design criteria professional in support of the Authority's procurement and development effort for the combined Residential and Commercial Materials Recycling Facility. Cost: \$ 776,930	2010	N/A
b. Solid Waste Authority of Palm Beach County: Plant Inspections / West Palm Beach FL. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [] Check if project performed with current firm Performs plant inspections of the North County RDF Resource Recovery Facility specifically focusing on the electrical plant equipment/systems and operations. This includes assessing the operation of the facilities, and addressing safety concerns, maintenance issues, and regulatory compliance. Supports the development of the annual reports documenting the results of the inspections. Cost: \$1,177,456	2008	N/A
c. Solid Waste Authority of Palm Beach County: Ferrous Processing Facility Procurement Support / West Palm Beach FL. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [] Check if project performed with current firm Design Engineer responsible for development of a design criteria package to specify performance-based criteria for the relocation and construction of the new Ferrous Processing Facility (FPF). Responsible for development of detailed electrical design and bid documents necessary to construct the new FPF. Cost: \$1,489,973	2010	N/A
d. Solid Waste Authority of Palm Beach County: Consulting Engineering for North County Resource Recovery Facility / West Palm Beach, FL. (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [] Check if project performed with current firm Serves as Design Engineer of electrical systems supporting the procurement of a design-build contractor and the construction oversight of the \$200M refurbishment of the Authority's 2,000-ton-per-day North County Resource Recovery Facility, which consists of engineering, procurement, demolition, and reconstruction of two 1,000-ton-per-day waste-to-energy process units including boilers, air pollution control equipment, and control systems. Cost: \$6,298,890	Ongoing	N/A
e. City of Clearwater: Marshall St APCF Process Air System Upgrade / Clearwater FL (3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [] Check if project performed with current firm Project lead Engineer for Electrical and Instrumentation design for the upgrade of the process air system. The design provided for 3 new multi-stage process air blowers with control panels and field instruments to provide control of the process air to 13 aeration tanks, 4 re-aeration tanks, and 2 dissolved oxygen booster tanks. Cost: \$ 480,659	Ongoing	N/A

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT*(Complete one Section E for each key person.)*

12. NAME Michael Sutton		13. ROLE IN THIS CONTRACT Electrical & DCS	14. YEARS EXPERIENCE a. TOTAL 18		b. WITH CURRENT FIRM 12
15. FIRM NAME AND LOCATION (City and State) Tampa, Florida					
16. EDUCATION (DEGREE AND SPECIALIZATION) BS Chemical Engineering Columbia University 1992 MS Chemical Engineering Polytechnic University 1996			17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Professional Engineer (AL)(FL)(GA)(TN) Certified Construction Documents Technologist (CDT)		
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Health and Safety Orientation Foxboro I/A					

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Lead instrumentation and control engineer for the development of specifications and design drawings to procure a plantwide control system for the 5-mgd Olga Water Treatment Plant. The control system will be a PLC/PC Ethernet-based solution with Allen-Bradley or Modicon PLCs and Citect HMI software. Cost: \$260,166 Completed: 2005 CONSTRUCTION: 2007	<input type="checkbox"/> Check if project performed with current firm	
	(1) TITLE AND LOCATION (City and State) Lee County: Olga WTP Improvement / Fort Myers FL.	PROFESSIONAL SERVICES NA	CONSTRUCTION (If applicable) NA
b.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Designed and prepared the contract specifications and drawings for the instrumentation and controls for the NWQ WWTP solids handling building. The control system includes a PLC/PC solution to provide automatic control of a sludge dewatering centrifuge and all ancillary equipment. The PLC is integrated with the county's existing wide-area network to allow for remote monitoring of the dewatering equipment.	<input type="checkbox"/> Check if project performed with current firm	
	(1) TITLE AND LOCATION (City and State) Monroe County Department of Environmental Services: Northwest Quadrant Wastewater Treatment Plant Solids Handling Improvement / Rochester NY	PROFESSIONAL SERVICES NA	CONSTRUCTION (If applicable) NA
c.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Lead I&C design engineer for the upgrade to the 80 MGD Shades Mountain WTP. The upgrade includes four new transfer pumps, two new 4 MGD clearwells and four sets of high lift pumps for water distribution. Responsible for the preparation of the control system specifications and process and instrumentation drawings (P&IDs).	<input type="checkbox"/> Check if project performed with current firm	
	(1) TITLE AND LOCATION (City and State) Birmingham Water Works & Sewer Board: BWWSB - SMFP Phase 2 / Birmingham AL	PROFESSIONAL SERVICES NA	CONSTRUCTION (If applicable) NA
d.	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Lead instrumentation and control (I&C) engineer for the program to rehabilitate three groundwater production wells and install new flow- and level-monitoring devices at five wells. Responsible for preparation of the field instrument specifications and drawings for the control systems design, shop drawing review, and response to RFIs.	<input type="checkbox"/> Check if project performed with current firm	
	(1) TITLE AND LOCATION (City and State) Charlotte County: Burnt Store Water Treatment Plant Expansion - Well Field Maintenance / Port Charlotte FL	PROFESSIONAL SERVICES NA	CONSTRUCTION (If applicable) NA

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Steven Jones	13. ROLE IN THIS CONTRACT Regulatory Compliance & Permitting	14. YEARS EXPERIENCE	
		a. TOTAL 31	b. WITH CURRENT FIRM 1
15. FIRM NAME AND LOCATION (City and State) Tampa, Florida			
16. EDUCATION (DEGREE AND SPECIALIZATION) Engineering Technology, Louisiana State University, 1979-1982		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)			

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	Pinellas County: Beacon Groves and Orange Point Reclaimed Water Main Project	2003/2004	2005
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project manager and designer for over 33,000 linear feet of 4-inch through 12-inch reclaimed water distribution main within the Beacon Groves & Orange Point subdivisions and within FDOT right-of-way (U.S. Hwy. 19). Permitting through FDOT and Pinellas County was required.		
	<input type="checkbox"/> Check if project performed with current firm		
b.	City of Pinellas Park: 102nd Ave. Triangle Sewer Expansion / Pinellas Park FL.	2005	2006
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project designer for over 8,600 lf of gravity sewer, 4,300 lf of potable water main, and 1,200 lf of force main in an area of the city where no municipal sewer service existed. The project required FDEP and SWFWMD permitting.		
	<input type="checkbox"/> Check if project performed with current firm		
c.	City of Clearwater: Spring Branch Conveyance Enhancements Project	Ongoing	N/A
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project designer for the ongoing design of drainage improvements which are part of the Stevenson's Creek Watershed Management Plan. The project includes channel widening, bank stabilization utilizing gabions and a two-acre floodplain basin. Project required permitting through SWFWMD and the USACE.		
	<input type="checkbox"/> Check if project performed with current firm		
d.	City of St. Petersburg: Bayfront Stormwater Realignment Project	2006	2007
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project designer for the replacement of an existing 16-inch aerial water main crossing over Stevenson's Creek with a subaqueous 20-inch crossing. This project required the installation of two 16-inch line stops in order to perform the replacement without interrupting adjacent water service.		
	<input type="checkbox"/> Check if project performed with current firm		
e.	City of Clearwater: Mandalay Avenue Stormwater Outfall Project	2007	Pending
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project manager and lead designer of approximately 1,200 lf of large diameter storm pipe and box culvert proposed as an alternative to the replacement and upsizing of stormwater Lift Station No. 63. This storm system collected over 20 acres of contributing area and provided an enhanced discharge outfall to into Clearwater Harbor. Project included numerous major utility adjustment designs. Permitting was required through SWFWMD, USACE and PCWNCA.		
	<input type="checkbox"/> Check if project performed with current firm		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME David Cibik	13. ROLE IN THIS CONTRACT Regulatory Compliance & Permitting	14. YEARS EXPERIENCE	
		a. TOTAL 20	b. WITH CURRENT FIRM 11

15. FIRM NAME AND LOCATION (City and State)

Tampa, Florida

16. EDUCATION (DEGREE AND SPECIALIZATION)

BS Environmental Engineering University of Florida 1991

17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)

Professional Engineer (FL)

Registered Environmental Manager

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

24-Hr Supervised Field Training; Ergonomics; Initial 40 Hour Hazardous Waste Operations Safety Training Medical; Health and Safety Orientation; Hazardous Waste Operations Site Supervisor; Unexploded Ordnance (UXO) remediation site training

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	City of Tampa: McKay Bay Retrofit/Reconstruction / Tampa FL	NA	NA
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Assisted in the retrofit and reconstruction of the 1,000-tpd waste-to-energy facility. Responsibilities included preparation of monthly meeting minutes, review of project specifications, data collection, facility inspections, construction monitoring activities and general project management.		
b.	Barr Laboratories: Regulatory Compliances / NJ.	NA	NA
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Prepared regulatory reports such as air permits, hazardous waste generator reports and discharge monitoring reports for a pharmaceutical manufacturer.		
c.	Confidential Client: Due Diligence/Compliance Review / Tampa FL.	NA	NA
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Conducted property transfer ESAs (ASTM E1527/E1903) and multimedia environmental compliance audits including due diligence/compliance review at two facilities located in the City of Tampa. Reviews were performed to aid client in decision to acquire additional companies/operations. Work included regulatory and facility file reviews, on-site assessments, phase II sampling, and a compliance assessment.		
d.	City of Tampa: Ybor Entertainment District Solid Waste Quantity, General Consumption and Collection Study / Tampa FL	NA	NA
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Responsible for solid waste generation rate calculations, categorization of generators, generator waste comparisons and related data analysis.		
e.	Florida International University: Chiller/Cooling Tower Replacement Project / Miami FL	NA	NA
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Served as on-site Project Manager for a chiller/cooling tower replacement project in which the Poole & Kent Company provided construction management services. Specific responsibilities included chairing and recording weekly project progress meetings, reviewing/approving change orders, inspecting job site, reviewing submittals and reviewing/approving monthly requisitions.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT*(Complete one Section E for each key person.)*

12. NAME

Pieter Conradie

13. ROLE IN THIS CONTRACT

Civil & Site

14. YEARS EXPERIENCE

a. TOTAL

14

b. WITH CURRENT FIRM

6

15. FIRM NAME AND LOCATION (City and State)

Newport News, Virginia

16. EDUCATION (DEGREE AND SPECIALIZATION)

Program completed in BCE Civil Engineering University of Stellenbosch 1996

17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)

Professional Engineer (VA)

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

April 2003 - Maine Joint Environmental Training Coordinating Committee: Hydrocad ; February 2003 - Geosynthetics 2003, Atlanta, GA
February 2003 - International Erosion Control Association: How to select, install and inspect constr; February 2005 - Sanitary Landfill Design, Madison, WI; June 2003 - SWANA 8th Annual Landfill Symposium, Atlantic City, NJ; June 2004 - SWANA Home Study Exam for Managing Landfill Gas at MSW Landfills; March 2008 - SWANA MOLO Course; October 1998 - Wastecon 1998 Johannesburg, South Africa
September 2000 - Wastecon 2000; Somerset West, South Africa; September 2001 - Landfill Interest Group Two Day Seminar Cape Town, South Africa

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	<p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE</p> <p><input type="checkbox"/> Check if project performed with current firm</p> <p>■ Malcolm Pirnie served as the Solid Waste Authority of Palm Beach County's design criteria professional in support of the Authority's procurement and development effort for the combined Residential and Commercial Materials Recycling Facility.</p>	NA	NA
b.	<p>(1) TITLE AND LOCATION (City and State)</p> <p>City of Virginia Beach: Urban Landfill Development/ Virginia Beach VA</p> <p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE</p> <p><input type="checkbox"/> Check if project performed with current firm</p> <p>■ Evaluated the feasibility of 'urban landfill' operations via purchase of adjacent properties for expansion of Landfill No. 2 disposal capacity and buffer/screening. Issues to be addressed included compatibility with surrounding land and ability to mitigate impact of operations (including visual, odor, noise, dust, traffic and public health) on urban encroachment. Preliminary Qualitative Assessment of Potential Public Health Risk associated with on-going (state-of-the-art) mswlf operations including web-based research and identification of potential pollutants as well as evaluation of risk posed by their release.</p>	NA	NA
c.	<p>(1) TITLE AND LOCATION (City and State)</p> <p>Cape Metropolitan Council - Solid Waste Management Division: Athlone Refuse Transfer Station - Containerization of MSW / Cape Town Sth Africa.</p> <p>(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE</p> <p><input type="checkbox"/> Check if project performed with current firm</p> <ul style="list-style-type: none">● Preengineering studies including the investigation of different containerisation and transportation options;● Preparation of bid documents for the construction of an enclosed tipping floor, waste transfer and handling sytems at the Athlone Refuse Transfer Station and container handling system at the Vissershok Hazardous Waste Landfill; and,● Construction oversight including contract administration, shop drawing review, construction quality assurance and preparation of certification document verifying construction in accordance with approved permit application.	NA	NA

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT*(Complete one Section E for each key person.)*

12. NAME Tamara L. Stankunas, P.G.	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL 23	b. WITH CURRENT FIRM 8
15. FIRM NAME AND LOCATION (City and State) Earthshine Environmental, Inc., Tampa, Florida			
16. EDUCATION (DEGREE AND SPECIALIZATION) Bachelor of Science-Geology: Florida State University		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Professional Geologist, FL License No. 1179	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Graduate studies-Groundwater Hydrogeology, Hazardous Waste Operations & Emergency Response supervisor training, NGWA MODFLOW Groundwater Assessment & Remediation Computer Modeling Training. Member : SWANA, Nat'l Groundwater Assoc., Am Assoc. of Petroleum Geologists, Assoc. of Women Geologists			

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
a.	City of Tampa-McKay Bay Refuse-to-Energy Facility, Tampa, Florida Engineer of Record	On-going	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager responsible for permitting, compliance, operations monitoring, Annual Operations Report preparation for the 1000 TPD Refuse-to-Energy Facility including: Title V Permitting & related compliance, Solid Waste Permitting, Permitting for new Non-Fe Metals Recovery System, Transfer Station Permitting/Compliance, NPDES Permit, and overall compliance monitoring and reporting for entire facility. Related projects include Community Drop-Off Facility preliminary siting & design development, beneficial ash reuse evaluation.		
b.	Solid Waste Authority of Palm Beach County South Borrow Lake Filling Project Palm Beach Renewable Energy Facility	On-going	On-going
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager for the Federal Dredge & Fill/Env. Resource Permitting for filling onsite South Borrow Lake to provide usable land for future Renewable Energy Park facilities. Work resulted in obtaining the required U.S. Dept of Army Permit for the lake filling work. On-going responsibilities include planning, regulatory support, and management of the lake filling work to completion.		
c.	Solid Waste Authority of Palm Beach County NCRFF Refurbishment and PBREF #2 SCA	On-going	On-going
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Consulting support services on numerous solid waste projects including: preparation of the Site Certification Application for the new Palm Beach Renewable Energy Facility #2, permitting and regulatory support for the NCRFF Refurbishment including air pollution control system upgrades and replacement of various boiler island components, and various other integrated solid waste management operations projects.		
d.	Lee County Solid Waste Energy Recovery Facility, Ft. Myers, FL	2001	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Project Manager responsible for facility compliance, monitoring, onsite inspections, performance evaluations, and permitting including modification to Conditions of Certification (Power Plant Site Certification) for construction of an on-site Recovered Materials Processing Facility.		
e.	City of Tampa-McKay Bay Refuse-to-Energy McKay Bay Refuse-to-Energy Retrofit Project	2001	
	(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Senior Project Geologist/Hydrogeologist responsible for review, oversight, and regulatory support for environmental-related activities during the refuse-to-energy facility retrofit project.		

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT (Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)		20. EXAMPLE PROJECT KEY NUMBER 1
21. TITLE AND LOCATION (City and State)	22. YEAR COMPLETED	
Consulting Engineering for North County Resource Recovery Facility West Palm Beach, Florida	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) N/A
23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER Solid Waste Authority of Palm Beach County	b. POINT OF CONTACT NAME Raymond H. Schauer Robert Worobel	c. POINT OF CONTACT TELEPHONE NUMBER 561-640-4000 ext 4603 561-691-8716
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)		Fees: \$ 11,067,990

Malcolm Pirnie has served as the Solid Waste Authority's Consulting Engineer for the 2,000-tpd refuse-derived fuel (RDF) waste-to-energy facility, the North County Resource Recovery Facility (NCRRF), for more than 10 years. We recently completed the vendor negotiations with the current operator for continued operation of the facility and are currently involved in the construction oversight for the refurbishment of the existing facility while the facility continues to operate. In addition, we are in the process of assisting the Authority with the implementation of a new mass burn waste-to-energy facility with a processing capacity of 3,000 tpd, the first of its kind in the United States in more than 15 years.

Operations Monitoring

As part of our consulting engineering services, we conduct quarterly inspections of the NCRRF and perform a comprehensive annual inspection and review in order to:

- Provide an independent assessment of the operator's performance in complying with the terms and conditions of the operations and maintenance agreement and operating plan.
- Provide an independent assessment of the general condition of the facility with regard to operator maintenance.
- Provide recommendations to improve the operations and maintenance of the facility.
- Provide recommendations for repairs or replacements to be performed in accordance with current generally accepted industry practices for similar facilities.



To complete the review, Malcolm Pirnie conducts inspections of the facility to observe operating practices and equipment conditions, and evaluates these with respect to current industry standards. The inspections address observed safety concerns, maintenance issues, general facility housekeeping, and environmental compliance. Malcolm Pirnie also reviews facility operating data provided by the Operator for each Billing Period of each fiscal year. The information is audited to verify operating fees and to verify whether contractual Performance Guarantees have been met. The review is coordinated with the Authority and its financial auditors, as necessary, and our findings are presented in an annual report to the Authority.

NCRRF Construction Services Support

Malcolm Pirnie is currently providing construction support for the Authority's \$200 Million NCRRF Refurbishment Project to assist the Authority in monitoring construction progress, work quality and conformance with the Contract. Construction support activities include the following:

- Provides construction oversight activities including monitoring daily construction activities; expediting engineering decisions; review/interpreting of plans and specifications; maintaining construction documents; attend coordination meetings with the design/build contractor and the Authority, assisting with contract compliance review of the design/build contractor's activities; review incident reports and field instructions (FIs); and maintain liaison between Malcolm Pirnie's offices and the Site.
- Interpreting plans and specifications in the field and coordinate with internal staff, the Authority and Contractor as required.



- Assisting the Authority with the review of all refurbishment design submittals to ensure conformance with the Authority's specifications and performance standards prepared by Malcolm Pirnie and the NCRRF Operator.
- Assisting the Authority with negotiating the technical, legal, and financial issues associated with the amendment of the existing operations and maintenance agreement to account for the operation of the refurbished facility.
- Assisting the Authority with oversight of the design/build contractor's workload force report by confirming the indicated staffing level on-site as part of the daily Resident Project Representative walk-through inspection. Malcolm Pirnie also reviews the labor invoices submitted by the design/build contractor to confirm that the wages and per diem charges are in accordance with the Procurement and Construction Contract.
- Assisting the Authority with project cost monitoring by preparing an overall project cost estimate to support the Authority's bond financing for the Refurbishment project. Providing overall project cost monitoring in relation to the original bond financing based on the information provided by the design/build contractor and NCRRF Operator. Information that is tracked as part of the cost monitoring effort includes Owner Furnished Equipment purchases and invoiced amounts; Owner Tax Savings Purchased Equipment purchased and invoice amounts; design/build contractor project costs invoiced; Malcolm Pirnie and other additional permitting services; and, activities and equipment elected to be procured by the NCRRF Operator.

New Waste-to-Energy Facility Implementation

Malcolm Pirnie has been providing professional engineering services for the Solid Waste Authority of Palm Beach County (Authority) for over a decade and has also assisted with the planning and implementation of their Integrated Solid Waste Management Plan. After evaluating future solid waste and population growth trends and projections, the Authority Board authorized moving forward with the development of a new 3,000 ton per day mass burn waste to energy facility in order to meet the disposal needs of Palm Beach County residents as well as keep with the Authority's commitment to waste reduction and resource recovery. Malcolm Pirnie initiated the development of this landmark project, the first waste to energy facility to be constructed in the United States in more than 15 years, by performing a constraints and limitations study on the proposed site for the new facility to identify any fatal flaws that may prevent the development of the project. Once the site was determined to be feasible, Malcolm Pirnie developed a master project schedule and commenced working on the numerous concurrent activities necessary for the successful implementation of this project.



Malcolm Pirnie is responsible for the planning, conceptual design, permitting, financial support, procurement, and construction oversight of the new facility, which is being completed on an accelerated schedule in order to address the rapidly depleting disposal capacity of the existing facility. Completion of the project is anticipated in 2015. Currently, Malcolm Pirnie is providing the following services related to the implementation of the new waste-to-energy facility:

- Overall planning.
- Development of recommendations for the sizing of the new waste-to-energy facility.
- Preliminary design including reconfirmation of previous assumptions related to water, wastewater, and reclaimed water usage rates.
- Traffic flow estimation.
- Public outreach program development and implementation.
- Preliminary opinion of probable engineering cost estimating.
- Human health and environmental risk assessment modeling.
- Development of wetland mitigation plans.
- Preparation of a request for qualifications to potential vendors interested in designing, building, and operating the new facility, and a report evaluating the responses.
- Preparation of a request for proposals including a detailed design criteria package and cost proposal evaluation model which was issued to the prequalified vendors.
- Evaluation of Proposals and technical support to the Evaluation Committee during the selection process.
- Preparation of all required environmental application materials, including PSD permit application and an application for modification of the current Conditions of Certification for submission to the FDEP, necessary for the regulatory approval to construct and operate the facility.

In addition to our ongoing operations monitoring, construction oversight, and new facility implementation services that we are currently conducting, we have provided the following services for the Authority:

- **NCRRF Comprehensive Assessment**
- **North County Resource Recovery Facility Negotiation of 20-Year Operation and Maintenance Agreement**
 - **Financial Modeling /Independent Cost Estimate**
 - **Preliminary Design Review**
- **Regulatory and Permitting Assistance**
- **Original Term Close-out Activities**
- **NCRRF Refurbishment Implementation and Construction Services**
- **NCRRF Refurbishment Procurement Services**
- **NCRRF Reliability Standards Support**
- **Greenhouse Gas Mandatory Reporting Rule Requirements Support**
- **Materials Recycling Facility Operations and Monitoring Services**
- **Materials Processing Facility Relocation**
- **Ferrous Processing Facility Relocation**
- **Alternative Technologies Review**
- **Disaster Debris Management**
- **Continuity of Operations Planning**

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
a.	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
	Malcolm Pirnie, Inc.	West Palm Beach, FL	Prime
b.	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER 2
21. TITLE AND LOCATION (City and State) Operations Monitoring and Solid Waste Management Program Fort Lauderdale, FL		22. YEAR COMPLETED PROFESSIONAL SERVICES Ongoing
		CONSTRUCTION (If applicable) Ongoing
23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER Broward County Waste and Recycling Services	b. POINT OF CONTACT NAME Ram N. Tewari, PhD, PE, BCEE	c. POINT OF CONTACT TELEPHONE NUMBER 954-577-2392
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and cost)		Fees: \$ 12,905,990

Operations Monitoring

Malcolm Pirnie has served as the Consulting Engineer for the Broward County Solid Waste and Resource Recovery program for more than 15 years, which consists of an integrated solid waste management program utilizing waste-to-energy, materials recycling, and landfiling. Currently, Malcolm Pirnie monitors operations of two Broward resource recovery facilities, a recovered materials processing facility, a Class I "contingency" landfill and an ash monofill, which includes the following activities:

- Review of facility operating data including daily tonnage/performance reports, scale-house summaries, CEMS data, and outage reports.
- Review of environmental testing results including stack testing, groundwater monitoring, and ash analyses.
- Inspection of major equipment during outages.
- Preparation of operations monitoring reports to summarize observation made during monthly inspections.
- Preparation of semi-annual and annual reports documenting the observations made during the previous reporting period with respect to equipment condition, adherence to contractual requirements and industry standards, permit compliance, and general operating trends.
- Attendance at monthly operations meetings.
- Review and assessment of the potential technical impact of changes in federal, state, and local laws and regulations.
- Representation of the County with respect to any change orders/claims and arbitration.
- Review of all plans and drawings provided by vendors in reference to planned modifications at the facilities or to any County-owned solid waste management facility.



Malcolm Pirnie also provides a wide variety of other solid waste management program support, including landfill design services, wetland mitigation monitoring, miscellaneous permitting support, and construction phase services.

Past Activities

Malcolm Pirnie headed the project team in a ten-year program to develop a solid waste management program for Broward County. This complex project – which was awarded the Grand Conceptor Award for Engineering Excellence in 1992 by the Florida Institute of Consulting Engineers – includes the world's largest resource recovery project: two mass burn resource recovery facilities, ash residue and contingency landfills, and precedent-setting wetland mitigation efforts.

The \$700-million project marks the first simultaneous construction of two resource recovery facilities, with a combined capacity of 4,500 tons per day (tpd), expandable to 6,000 tpd.



Tasks included:

- Analysis/quantification of solid waste generation.
- Evaluation/selection of resource recovery technologies.
- Evaluation of more than 100 potential sites, and implementation of the three most appropriate.

- Assistance in obtaining environmental permits, including preparing conceptual designs, operating plans, and environmental impacts.
- Evaluation/selection of program alternatives, including energy markets, financing approach, institutional arrangements, and cost/benefit analyses.
- RFQ/RFP development, proposal evaluation, and vendor contract negotiation, including technical specifications and performance guarantees.
- Energy purchasing and waste supply arrangements.
- Engineer's feasibility report.
- Environmental analyses, including air, water, noise, odor, and traffic impacts.
- Technical and economic feasibility studies.
- Development/construction monitoring of wetland mitigation.
- Construction monitoring and acceptance testing.
- Ongoing operations monitoring since commencement of operations at each facility.

In addition to the services mentioned above, Malcolm Pirnie has provided the following services to the County:

- **Materials Recycling Facility Evaluation**
- **Recovered Materials Processing Facility Relocation**
- **Materials Recycling Facility Residue Composition Analysis**
- **Metals Processing Facility Feasibility Study**
- **Waste Composition Study**

Solid Waste Visioning Process

Broward County, like many communities, is approaching a critical turning point in which the management of their solid waste – currently handled through a dependent district structure where municipal solid waste is sent to two 2,250-tpd Waste Management Resource Recovery Facilities – will require stakeholder alignment and business/financial analyses to determine the next generation of solid waste management. In support of the County, Malcolm Pirnie facilitated a "Trash Summit" which was held in June of 2006 to bring city managers, mayors, and other key stakeholders together to review the past, present, and potential future scenarios for the District. The program developed a commonality of purpose among stakeholders, and a structure for communication with scheduled milestones to serve as the ultimate deadlines of existing facility operations and permits. Malcolm Pirnie is currently supporting the County as they continue to evaluate and develop the future governance structure for the management of their solid waste, including the negotiations with the existing operator of the County's two resource recovery facilities to provide continued disposal capacity for the next 20 years and beyond.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	Malcolm Pirnie, Inc.	Fort Lauderdale, FL	Prime
b.	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER 3
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21. TITLE AND LOCATION (City and State) McKay Bay Operations Monitoring and Retrofit Services Tampa, Florida	22. YEAR COMPLETED PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) N/A
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23. PROJECT OWNER'S INFORMATION		
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a. PROJECT OWNER City of Tampa	b. POINT OF CONTACT NAME Nancy McCann	c. POINT OF CONTACT TELEPHONE NUMBER 813-348-1118
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24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Fees: \$ 12,062,519

Operations Monitoring

Malcolm Pirnie oversees the McKay Bay Refuse-to-Energy Facility, a 1,000 ton per day (tpd) mass burn waste-to-energy facility, operations and performing inspections on a routine basis, particularly during scheduled maintenance, to assess the performance of the facility operator with regard to the service agreement. Operations are also monitored with respect to compliance with federal, state, and local regulations and permits. Malcolm Pirnie reviews the facility's environmental testing results and performs audits of annual air emission testing procedures as they are conducted by independent contractors. We also attend monthly coordination meetings with the facility staff and operator to discuss and resolve issues regarding facility operations. Malcolm Pirnie prepares the minutes of the meetings and summarizes the findings of our operations monitoring activities in an annual report to the City.



Past Activities

Malcolm Pirnie was responsible for a broad range of services related to the retrofit of the McKay Bay Refuse-to-Energy Facility, a 1,000-tpd mass-burn waste-to-energy plant. The retrofit represents the first comprehensive "chute-to-stack" retrofit of a waste-to-energy facility constructed in the U.S. The project involved replacement of the furnace system technology as well as the air pollution control equipment to meet emission requirements of the 1990 Clean Air Act Amendments. Other systems at the plant were upgraded or replaced as needed to allow operation over a 20-year period. Malcolm Pirnie prepared an initial opinion of probable costs for retrofitting the system for input into a detailed financial analysis. When Malcolm Pirnie's financial analysis showed that a complete retrofit of the existing facility made sense economically, we helped the city move the project forward through an innovative procurement process to obtain a design-build contractor who would design, build, and operate the facility. After completing preliminary design and cost estimates, we managed a prequalification process to shortlist qualified firms, who then contributed to the development of the request for proposals (RFP) and contract documents. The process saved the city over \$20 million in capital costs. Malcolm Pirnie managed the project, coordinating all subconsultants' activities and providing construction oversight for replacement of the existing rotary kiln with a modern mass-burn furnace system and state-of-the-art air pollution control equipment. Plant operation continued without interruption: Two of the four combustion units were "taken down" at a time for construction, leaving two units in continuous operation. We also provided support on environmental and regulatory issues, where appropriate, and were responsible for the procurement process, including investigations, request for qualifications (RFQ) and RFP development, vendor response evaluations and negotiations, construction and service agreement development, and all technical and performance specifications. In addition, Malcolm Pirnie was responsible for overseeing construction and reviewing vendor performance from the effective date of the agreement through the second full fiscal year of full operation of the facility after it had been retrofitted/constructed.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT		
(1) FIRM NAME a. Malcolm Pirnie, Inc.	(2) FIRM LOCATION (City and State) Tampa, FL	(3) ROLE Prime

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER 4
21. TITLE AND LOCATION (City and State) Operations Monitoring and Bond Engineering Services Miami FL		22. YEAR COMPLETED PROFESSIONAL SERVICES On-going
23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER Miami-Dade Department of Solid Waste Management (DSWM)	b. POINT OF CONTACT NAME Lee Casey	c. POINT OF CONTACT TELEPHONE NUMBER (305) 514-6672
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)		Fees: \$1,220,000 (Maximum Annual Contract Compensation)

Bond Engineer for the Resources Recovery Facility

Resources Recovery Facility Operations Monitoring

As the Bond Engineer for the DSWM since 2007, Malcolm Pirnie, Inc. provides monitoring services for the 3,000 ton per day refuse derived fuel (RDF) Resources Recovery Facility (RRF). The RRF is a key component of the DSWM's integrated Solid Waste Management System through the large scale disposal and material processing and recovery from solid waste in an environmentally acceptable manner and provides a major power export revenue stream to the County. The monitoring program includes the RRF's operational efficiency, physical condition, and operation and maintenance practices for conformance with the appropriate Service Agreement, Bond Covenants, and generally accepted industry standards.



Annual Reporting For Resources Recovery Facility

Malcolm Pirnie, Inc. performs annual inspections of the RDF Resources Recovery Facility (RRF). The inspections report the physical condition and operating efficiency of the RRF.

Assignment of Operations Agreement for Resource Recovery Facility

Covanta Energy Corporation (Covanta) offered to purchase all interest in the operations contract for the Miami-Dade Resource Recovery Facility (RRF) from Veolia Environmental Services North American (Veolia). The operations contract provided that the County has the sole discretion to approve or withhold approval and any assignment of Veolia's interests in the contract or the facility. Malcolm assisted the County in evaluating the potential impact of such assignment, and identified options available to the County through the existing agreement. Malcolm Pirnie evaluated the proposed transfer and assisted DSWM with negotiations resulting in favorable concessions from Covanta for the County's approval of the assignment.

Evaluation of Damage and Repair Oversight to Boiler #4

Malcolm Pirnie maintains a high profile presence at the RRF, monitoring the contract operations for compliance with the service agreement, inspecting the physical condition and operational efficiency of the equipment, and operation and maintenance practices by the contract operator. On February 18, 2010, there was an explosion inside Boiler #4 at the RRF. Within 24 hours, Malcolm Pirnie mobilized a team of experts to document the cause and effect of the explosion, and inspect the damage before repairs were initiated by the operator. Due to the fast response to the emergency and the partnering between the County, Malcolm Pirnie and the operator, the damage was repaired and the boiler was returned to service within a week after the explosion.

Assessment of Negative Impact

As the Bond Engineer for the DSWM, Malcolm Pirnie, Inc. assisted the DSWM in determining potential negative impacts resulting from the following proposals:

- Changes proposed to the Solid Waste Management Chapter 15 (Chapter 15), following the County Attorney's review and in advance of presentation to the Board of County Commissioners.
- A request from the Miami-Dade County Department of Transportation (DOT) to use part of the DSWM's property near the Resources Recovery Facility's (RRF) stormwater pond needed for the extension and widening of NW 74th St. from the Palmetto Expressway to NW 107th Ave.

Waste Services, Inc. Put-or-Pay Review

Malcolm Pirnie provided a technical and financial analysis of the operational and financial impact to the DSWM for the Waste Services, Inc. (WSI) proposed amendment to the agreement with Miami-Dade regarding a reduction to the stipulated put-or-pay solid waste delivery requirement.

Annual System Reporting

As required by Bond Ordinance, Malcolm Pirnie prepares an Annual System Report to document the physical condition of system assets and conformance with the terms, conditions, and covenants of the Bonds. The system assets include the Resource Recovery Facility, four landfills, three transfer stations, Thirteen (13) Trash and Recycling Centers, and two maintenance facilities.

Landfill Closure and Long-Term Care Cost Estimates Reporting

Malcolm Pirnie provides annual landfill closure and long-term care cost estimates at each of the four landfill sites owned by the County. The cost information is provided in a format acceptable for inclusion in the County's financial statement as well as the annual reporting requirements of FDEP.

Annual Landfill Capacity Report

Each year, Malcolm Pirnie calculates the remaining air-space capacity at each of the three active landfills owned by County. Annual landfill capacity computations are based on topographic survey information provided by the County and adjusted to accommodate the amount of solid waste received at each landfill after the date of the survey until the end of the fiscal year.

Solid Waste Hauling Contractor Audits

Malcolm Pirnie conducted audits of each of three permitted solid waste haulers to statistically determine if significant quantities of solid waste may be diverted from the RRF. In addition to the financial audits, Malcolm Pirnie staff monitored the disposal destinations of randomly selected solid waste vehicles.

Appropriateness of Rates and Charges

As Bond Engineer, Malcolm Pirnie prepares a financial assessment of the appropriateness of rates and charges and the renewal and replacement budget amount for each Fiscal Year. The scope of services complies with requirements of the Bond Ordinance, and provides a check on the adequacy of the rates and charges for solid waste services.

Funding Analysis for the Closure of the Taylor Park Landfill

As Bond Engineer, Malcolm Pirnie reviewed the financial impact resulting from a proposed agreement concession that would have provided a financial grant for the closure of the Taylor Park Landfill in exchange for a long term disposal agreement with the City of North Miami Beach.

Munisport Landfill Closure Construction Oversight

As the Bond Engineer for Miami-Dade County, Malcolm Pirnie provided oversight of the design for permanent closure and groundwater remediation of the Munisport Landfill. The County provided grant funds from a revenue bond issue to the City of North Miami for the landfill closure. Malcolm Pirnie provided a technical review of the remediation strategy and reviewed all draw requests by the land developer through the City. The project is currently on hold pending resolution of the financial collapse of the land developer providing the closure services.

Homestead Landfill Closure Construction Oversight

As the Bond Engineer for Miami-Dade County, Malcolm Pirnie provided oversight of the construction, operation, remediation, and closure of the Homestead Landfill as stipulated in the Landfill Closure Grant Agreement between the County and the City of Homestead (City), Florida. In accordance with the Grant Agreement and Bond Covenants, Malcolm Pirnie provided oversight during the construction of the closure activities.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	Malcolm Pirnie, Inc.	Miami, FL	Prime
b.	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER 5
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21. TITLE AND LOCATION (City and State) Solid Waste Engineering and Operations Monitoring Services Tavares, Florida	22. YEAR COMPLETED PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) N/A
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23. PROJECT OWNER'S INFORMATION		
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a. PROJECT OWNER Lake County	b. POINT OF CONTACT NAME Jeffrey Cooper	c. POINT OF CONTACT TELEPHONE NUMBER (352) 343-3776
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24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

Fees: \$1,516,045

Operations Monitoring Services and Annual Reporting

Malcolm Pirnie provides a wide range of services including operations monitoring, permit compliance monitoring, vendor negotiations, litigation support, and general engineering consulting to the Department of Solid Waste Management Services. We are monitoring a 528-tpd resource recovery facility designed, built, owned, and operated by Covanta Energy (formerly Ogden Martin Systems of Lake, Inc.). As Lake County's Consulting Engineer, Malcolm Pirnie provides:

- Independent assessment of the operational efficiency and maintenance of the facility, as well as compliance with the terms and conditions of the service agreement
- Recommendations to improve the operations and maintenance of the facility by performing on-site inspections, analyzing solid waste deliveries, facility throughput, energy production efficiency, and environmental compliance, and monitoring outage inspections and emissions tests.
- Financial review and pro-forma updates relative to operations and maintenance and service fees associated with the facility
- Design review, negotiations assistance, and construction monitoring of Selective Non-Catalytic Reduction ("SNCR") System implemented to address nitrogen oxides emissions control requirements of Emission Guidelines
- General engineering services as required, including evaluation of issues relating to waste composition, permitting, utilities, and electrical production.



Malcolm Pirnie summarizes the findings of these activities in an annual report submitted to the Department of Solid Waste Management of Lake County.

In addition to our ongoing operations monitoring support services, Malcolm Pirnie has performed the following services for the County:

- **Litigation Support Services**
 - **Operations and Maintenance Fee Escalation**
 - **NOX/SNCR Retrofit Overhead Charges.**
 - **Cost of Obtaining and Maintaining Outside Waste**
 - **Additional Waste Service Fee**
 - **Property Taxes - Assessed Value of the Facility**
 - **General Service Agreement Issues**

Malcolm Pirnie conducted research in order to provide an opinion as to the reasonableness of certain questionable provisions of the service agreement, which included:

- Uncapped change-in-law pass-throughs.
- O&M fee for such a facility.
- Lack of vendor risk (e.g., no risk assumed related to any uncontrolled expenditures).

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
a.	(1) FIRM NAME Malcolm Pirnie, Inc.	(2) FIRM LOCATION (City and State) Orlando, FL	(3) ROLE Prime
b.	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER 6
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21. TITLE AND LOCATION (City and State) Resource Recovery Facility Rahway, New Jersey	22. YEAR COMPLETED PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (If applicable) N/A
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23. PROJECT OWNER'S INFORMATION		
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a. PROJECT OWNER Union County Utilities Authority	b. POINT OF CONTACT NAME Sunil K. Garg, Ph.D., Esq	c. POINT OF CONTACT TELEPHONE NUMBER 732-382-9400
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24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

Fees: \$4,630,000

Current Activities

Malcolm Pirnie is currently serving as the Authority's special engineer for the 1,540 ton per day (tpd) Union County Resource Recovery Facility to assure that the Covanta Energy Corporation (formerly Ogden Martin Systems) operates and maintains the facility in accordance with the requirements contained in lease and disposal service agreements between the County and Covanta. Malcolm Pirnie has been annually awarded the provision of operations and/or maintenance monitoring services since the facility began commercial operations in 1994. As part of on-going maintenance monitoring and general condition assessment, Malcolm Pirnie currently reviews maintenance records for all major equipment and conducts periodic inspections of the facility during non-outage periods. In addition, during scheduled outages of major equipment such as boilers, turbine condensers, air cooled condenser, and ash recovery systems, Malcolm Pirnie conducts inspections of the facility. The observations and findings from these inspections are incorporated into technical memorandums and an annual general condition assessment report.



Malcolm Pirnie also conducted the post-operational environmental assessment to monitor soil, surface water, and sediment, produced in accordance with the revised requirements of the Union County Resource Recovery Facility's PSD Permit. We also prepared the first and second annual waste separation report for compliance with facility permit conditions.

Past Activities

Malcolm Pirnie provided construction monitoring and project administration services to the Union County Utilities Authority for a new 1,540-tpd resource recovery facility. The 40-MW plant was built by Ogden Martin Systems of Union, Inc. under a full-service contract. The facility has three boilers, each generating approximately 120,000 lb/hr of superheated steam. Malcolm Pirnie has been assisting Union County on this project since 1986. We reviewed as-built drawings and have been monitoring operations since the plant began commercial operation in February 1994. Preconstruction services included preparation of the required environmental health and impact statement (EHIS) and permit applications. We prepared bid documents, assisted the County with its vendor negotiations (e.g., change order requests), and certified all payments on the project. Malcolm Pirnie was also responsible for the startup and acceptance testing of the facility, and administered and monitored the construction.

Operations Monitoring. Prior to the signing of the lease agreement between the Authority and Covanta in 1998 and as a part of operations monitoring services, Malcolm Pirnie provided an analysis of facility operations and performance as compared to the contractual guarantees agreed to by Ogden Martin in the service agreement. Malcolm Pirnie monitored solid waste deliveries, and throughput and processing efficiency, and analyzed the contractor's methodology for determining the higher heating value of the waste. Energy production efficiency was assessed in order to maximize energy production. Continuous emission monitoring data was reviewed on a monthly basis, as were all facility performance data. We also review monthly invoices submitted by the contractor to the Authority.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	Malcolm Pirnie, Inc.	White Plains, NY	Prime

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER <div style="text-align: center; font-size: 24pt;">7</div>
21. TITLE AND LOCATION (City and State) Energy Recovery Facility Operations Monitoring and Expansion Services Fort Myers, Florida	22. YEAR COMPLETED <div style="display: flex; justify-content: space-between;"> <div>PROFESSIONAL SERVICES 2006</div> <div>CONSTRUCTION (If applicable) N/A</div> </div>	
23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER Lee County	b. POINT OF CONTACT NAME Mike Avoglia	c. POINT OF CONTACT TELEPHONE NUMBER 239-533-8505
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)		Fees: \$ 5,140,739

Malcolm Pirnie was retained by the Lee County Department of Solid Waste as its consulting engineer for the development of a 1,200-tpd solid waste-to-energy recovery facility. Malcolm Pirnie also served as engineer of record and general solid waste consultant overseeing operations, providing annual reports to bonding agencies, and conducting outage inspections and environmental monitoring of the facility and the county's entire solid waste system. The facility provides disposal capacity for Lee and Hendry Counties, Florida.

Energy Recovery Facility Operations Monitoring

In the years following facility acceptance, Malcolm Pirnie served as consulting engineer for the County's 1,200 ton per day (tpd) energy recovery facility. Malcolm Pirnie was responsible for overseeing the facility's operations, performing inspections on a routine basis, especially during scheduled maintenance, and assessing the performance of the facility operator with regard to the service agreement. Operations were also monitored with respect to compliance with federal, state, and local regulations and permits. Malcolm Pirnie reviewed the facility's environmental testing results, and performed audits of annual air emissions testing procedures as they are conducted by independent contractors. We also attended monthly coordination meetings with their staff to discuss and resolve issues regarding facility operations. Malcolm Pirnie summarized the findings of its operations monitoring activities in semiannual reports to the county.



Energy Recovery Facility Expansion Project

Malcolm Pirnie provided consulting services to Lee County for the 660 tpd expansion of their Energy Recovery Facility, and the Site Certification process. Malcolm Pirnie assisted Lee County with obtaining the permits and approvals necessary under the Power Plant Siting Act, so that the County could expand its Energy Recovery Facility. The permitting effort included a Supplemental Site Certification Application, which contained an Environmental Justice Report, a Human Health and Ecological Risk Assessment, and a PSD Air Permit Application. Malcolm Pirnie addressed criteria such as: potential traffic and noise impacts, floodplain assessments, potential environmental impacts to the flora and fauna, storm water and wastewater capacity, potable water usage, and back-up ground water availability. The three-volume application set was reviewed by more than a dozen state and federal agencies and ultimately required the approval of the Governor and Cabinet sitting as the Power Plant Siting Board. Malcolm Pirnie also provided vendor negotiations assistance and facility expansion design review services.

Original Resource Recovery Facility Project Implementation

Malcolm Pirnie was retained by the Lee County Board of County Commissioners at a critical juncture in the County's resource recovery project. As the consulting engineer, we finalized the permitting process and oversaw construction, startup, and acceptance testing for the new 1,200-tpd waste-to-energy facility.

Additional Solid Waste System Projects have included:

Materials Recovery Facility. Malcolm Pirnie provided professional services for the planning, siting, design, bidding, construction, startup, and acceptance testing of a new 400-tpd recovered materials processing facility located at the resource recovery site in Lee County. The project consisted of four phases:



- Phase 1 - Conceptual design, including evaluation of the facility's existing equipment
- Phase 2 - Preparation of construction documents
- Phase 3 - Preparation of bid documents, analysis of bids, and awarding of contracts for construction
- Phase 4 - Administration of the construction contract

Transfer Station. Malcolm Pirnie designed a 47,000-sq-ft transfer station that is being constructed next to the County's waste-to-energy facility. The station has a capacity of 1,000 tons per day on a single eight-hour shift. The tipping floor has sufficient space to store municipal solid waste generated on the heaviest day of the year, while also providing adequate maneuvering room for the loaders, backhoes, and collection vehicles that will operate on the floor. The entire tipping floor was sloped to drain into the transfer tunnels, eliminating the need for floor drains and improving washdown performance.

In conjunction with the new transfer station, Malcolm Pirnie also designed a new horticultural processing facility to accommodate a growing horticultural waste stream. The facility is designed for a loading rate of approximately 1,000 tons per day, requiring almost eight acres of asphalt-paved surface area. The facility has a storm water system capable of controlling runoff from a 25-year, 72-hour storm.

Solid Waste Generation Study. As part of our services, Malcolm Pirnie was tasked to perform a solid waste generation study for both counties. The purpose of the study was to project future solid waste generation and to assess its impact on the development of the waste-to-energy facility.

Engineer's Feasibility Report. Malcolm Pirnie prepared an Engineer's Feasibility Report in support of the financing of the county's regional landfill. All engineering, environmental, and financial aspects of the county's solid waste system were also evaluated for review by potential bond purchasers.

Residential/Commercial Waste Quantification Study. As part of our overall consulting services, Malcolm Pirnie conducted a study to quantify residential and commercial waste. While the Department of Solid Waste had reliable historical information on the total quantity of waste generated, recycled, and disposed of within the county, they did not know the breakdown by generator segment.

Malcolm Pirnie assigned teams to follow residential waste collectors over a period of several weeks. Routes handled by each of the franchise haulers were followed, and a residential generation rate was developed. A multifamily generation rate was also determined through additional surveying.

Waste Audit. Malcolm Pirnie undertook a waste audit to determine the quantity of recyclable materials remaining in the waste stream just prior to their disposal at the County's waste-to-energy facility. The County, which had already begun recycling approximately 35 percent of its total waste stream, wished to expand its program by determining which sectors, areas, or materials required additional attention. The study was designed to sample a representative quantity of both residential and commercial waste from each of the five franchise waste-hauling areas of the county.

Rate Structure Study. The Department retained Malcolm Pirnie to examine funding required to support solid waste management services now and in the future, and to address how these funds will be allocated to the customer base through their solid waste rate structure. Equity was used as the basis for evaluating the existing rate structure, but other influencing factors such as the ability to provide a steady stream of revenues for the resource recovery facility and the provisions of Chapter 93-207 of the Laws of Florida, which encourage unit-based fees for solid waste services, were also considered.

We identified the required funding for solid waste programs and evaluated the existing funding mechanisms which consisted of special assessments on residential properties, surcharges imposed on disposal of commercial waste, and tip fees. Each was evaluated in terms of equitableness and problems were identified.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	Malcolm Pirnie, Inc.	Fort Myers, FL	Prime
b.	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER 8
21. TITLE AND LOCATION (City and State) Resource Recovery Facility Operations Monitoring Services Fairfax County, Virginia		22. YEAR COMPLETED PROFESSIONAL SERVICES Ongoing
		CONSTRUCTION (if applicable) N/A
23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER Fairfax County	b. POINT OF CONTACT NAME Amarjit Riat	c. POINT OF CONTACT TELEPHONE NUMBER (703) 690-7264
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)		Fees: \$ 691,556

Malcolm Pirnie has provided a broad range of environmental engineering services to the County of Fairfax related to the ongoing maintenance and operation of its I-95 Energy/Resource Recovery Facility (E/RRF), as well as I-66 Landfill and 2,250 ton per day (tpd) Transfer Station and the I-95 Landfill. The I-95 E/RRF, operated by Covanta Energy, has a design capacity of 3,000 tpd and is the County's primary waste disposal facility.

Current contracts with the county, which run through 2016 include:

- **Independent Engineer.** Malcolm Pirnie provides consulting services to the county under an Independent Engineer Services contract for the I-95 Energy/Resource Recovery Facility. Over a period spanning more than a decade, Malcolm Pirnie has provided a range of services related to the I-95 operation monitoring, permitting and compliance, management reviews and planning.
- **General Engineering Services.** Under a second contract, Malcolm Pirnie provides general solid waste consulting contracts related to the county's overall solid waste management program, including strategic financial planning, management studies, collections efficiency and routing analyses, and recycling.



Specific projects include:

- **Greenhouse Gas Reporting.** Malcolm Pirnie is assisting two Fairfax County facilities, the I-66 and I-95 landfills, to comply with the new USEPA Mandatory Reporting Rule for Greenhouse Gases (GHGs) that was passed on October 30, 2009. Our services include:
 - GHG monitoring plan preparation
 - Methane measurement equipment specification
 - Development of recordkeeping and maintenance procedures using myComplyTM
 - Calculation of estimated methane emissions from the landfill and destruction through landfill gas control devices.
 - Drafting of annual GHG reports
- **I-66 Transfer Station Permitting.** Supported the county in the review and evaluation of the Virginia Department of Environmental Quality's permit-by-rule program. Based on our evaluation, the county transitioned the I-66 Transfer Station operating permit to the permit-by-rule program allowing the county to benefit from streamlined permitting and compliance reporting requirements, as compared to the standard permit program.
- **I-66 Landfill: Landfill Gas Monitoring Plan.** Developed a comprehensive landfill gas monitoring plan for the I-66 Landfill to comply with applicable regulations. The plan included the landfill's two landfill gas collection system as well as a gas conditioning system that provides biogas for supplemental heating at adjacent county facilities.
- **Facility Inspections.** Malcolm Pirnie conducts periodic inspections of the facility. During scheduled boiler outages, a thorough inspection of furnace and boiler internals is conducted. A detailed punch list is maintained to track the vendor's progress on addressing deficiencies noted.
- **Review of Facility Documentation.** We review facility operator and shift supervisor logs to identify potential problems or correlate facility performance trends with maintenance. Air emission data are reviewed, including stack test reports, emission exceedance reports, and other regulatory reports. Insurance coverage is also reviewed to ensure compliance with contract requirements.
- **Solid Waste System Revenue.** We reviewed all agreements between the county and other municipalities for waste delivery, and between the county, Ogden Martin, and the electric utility. We surveyed competing

waste disposal facilities within a 50-mile radius. We developed sensitivity cases to estimate the effect of a change in waste delivery tonnage on facility costs and revenues.

- **Coordination.** As part of required independent operations monitoring, we attended monthly operations meetings to address operational, maintenance, and coordination issues.
- **Negotiation of Clean Air Act Retrofit Proposal.** Malcolm Pirnie has conducted a detailed review of the vendor's proposal for a \$9 million capital change order to meet the revised emission guidelines. We developed a technical memorandum to support the negotiation of the amendment.
- **Facility Review.** Malcolm Pirnie provided a comprehensive facility review, with observation of all aspects of the facility operations. We issued a report regarding the overall condition and operation of the facility, including areas that need attention. We conducted a complete facility walk-through, reviewed operating records, and analyzed monthly reports on waste throughput, energy production, ferrous recovery and ash generation.
- **Testing.** We developed an acceptance testing protocol for a retrofitted dump condenser for the facility. The project also included acceptance testing observation and a report on the results of the testing.
- **NOx Strategy.** Malcolm Pirnie developed a regulatory strategy for NOx emissions, including the rationale for the use of combustion controls as reasonably available control technology (RACT). We prepared a report to the Virginia Department of Environmental Quality.
- **Metals Recovery.** We reviewed a proposed nonferrous metals recovery system, with comments on the design, operation, and performance criteria.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (<i>City and State</i>)	(3) ROLE
a.	Malcolm Pirnie, Inc.	White Plains, NY	Prime
b.	(1) FIRM NAME	(2) FIRM LOCATION (<i>City and State</i>)	(3) ROLE

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER 9
21. TITLE AND LOCATION (City and State) Resource Recovery and Solid Waste Engineering Services York County, PA		22. YEAR COMPLETED PROFESSIONAL SERVICES Ongoing
		CONSTRUCTION (If applicable) N/A
23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER York County Solid Waste Authority	b. POINT OF CONTACT NAME David E. Vollero	c. POINT OF CONTACT TELEPHONE NUMBER (717) 846-1066
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)		Fees: \$10,000,000

Maintaining System Capacity

In 2004, the Authority initiated efforts to study and plan for future waste disposal capacity needs. Our services on this project began with the study of waste management alternatives consistent with the Authority's guiding principles, including increased recycling/recovery, disposal alternatives, and existing and emerging thermal and chemical/biological treatment technologies. These activities included a tour of European WTE facilities to observe and discuss recent advances in WTE designs, technologies and operations. Ultimately, the decision was made to move forward with implementing additional waste processing capacity at either the current site of the existing 1,344 ton per day (tpd) York County Resource Recovery Center (YCRRC) or an alternate site. With this primary decision, we performed an expansion processing capacity analysis, which determined that a 600-tpd single unit expansion at the YCRRC was the preferred approach.



Over the past two years, we have been providing ongoing consulting services to the Authority which includes:

- Technical consulting services related to the planning, design and contracting for the expanded processing. These activities included financial analyses, waste generation projections, and pollution control technology reviews.
- Preparation of necessary solid waste and air compliance permitting, including a comprehensive solid waste facility permit modification, a pre-construction air plan approval application, air modeling, and a multi-pathway human health and ecological risk assessment. Permitting support throughout the public review and public hearing processes.
- Coordination of design and operating requirements in service agreement negotiations with the operations vendor (formerly Veolia Environmental Services and currently Covanta) for the construction, acceptance operations of the expanded YCRRC.

Due to reduced waste generation over the past two years, the expansion project has been delayed. Efforts have since changed to focus on the development and completion of a facility life extension study (LES). The LES is comprised of details testing and inspections of the plant, generally by major component. The LES will provide important information on the current condition of the facility, from which life extension projects will be planned and implemented to successfully extend the useful life of the existing units at acceptable operating and performance standards through 2035.

Previous Work

In the mid-1990s, CBS, Inc. acquired Westinghouse, Inc, the initial operator of the York County Solid Waste and Refuse Authority's (Authority) Resource Recovery Facility (RRF), and decided that it would exit the waste-to-energy business. Malcolm Pirnie was the independent engineer for the development of the facility and supported the negotiations of both the Westinghouse Service Agreement (with amendments) and the electrical sales agreement between the Authority and Metropolitan Edison.

With CBS' planned exit from the business, the Authority requested Malcolm Pirnie's services in support of the negotiation of a new service agreement with a new vendor, Montenay. The new service agreement was developed based on the Authority's knowledge of the facility's conditions (a fitness assessment was performed) and operational history.



The new service agreement, executed in 1998, is based on a straight forward operating fee arrangement in which Montenay is responsible for facility operations and maintenance for a fixed annual fee (with a minimum processing guarantee). In the new service agreement, the Authority was able to secure greater input on facility operations, particularly related to ongoing maintenance and repair. The Montenay service agreement is a win-win for both the Authority and Montenay. Montenay is compensated for what they do best – facility operations and maintenance and the Authority is maintained its ability to control waste deliveries to the RRF while providing for additional long-term disposal capacity for the County at the Authority's RRF and allowing for Authority input related to facility maintenance and repair.

Malcolm Pirnie provided planning and implementation of a 1,350-tpd resource recovery facility for the York County Solid Waste and Refuse Authority (Authority). In a relationship dating from 1995, we have assisted York County with all facets of its solid waste management and planning activities, including the resource recovery project, landfill design and mining, and medical waste, residual, and ash residue management planning.

Feasibility Studies

Conducted initial feasibility study of replacing the County landfill with a waste-to-energy facility and compared this option to several others.

Vendor Procurement

Prepared the request for qualifications (RFQ), evaluated vendors, assisted in vendor selection, and negotiated vendor contracts. After the Authority selected Westinghouse Electric Corporation (WEC) as the full-service vendor, in response to an offer by WEC of a no-cost facility expansion with an opportunity for sharing any profits from the expanded capacity, the Service Agreement was renegotiated. Malcolm Pirnie served as the technical advisor on the Authority's project team for negotiating an expansion of the waste-to-energy facility from 1,000-tpd to 1,344-tpd. This renegotiation included (a) new sizing of facility components (b) appropriate redefinition of (1) facility throughput guarantee, (2) energy guarantee and (3) residue quality and disposal requirements and responsibilities, (c) maintenance of all environmental guarantees and (d) maintenance of the full parental guarantee. Other major issues which were successfully resolved included waste supply and flow control issues related to the larger plant, additional financing complexity, and the terms of the "sharing of profit" mode on the utilization of the plant's excess capacity (i.e., capacity above 1,000 tpd).

Financing

Malcolm Pirnie prepared the consulting engineer's feasibility report for a \$130 million bond financing.

Environmental Studies

As part of the air permit application process, conducted a multiple-pathway health risk assessment of stack emissions. Conducted air quality dispersion and deposition modeling to estimate the distribution of emitted contaminants in air, soil, indoor dust, home-grown produce, vegetable and forage agricultural crops, and surface water. Provided expert testimony at a hearing before an administrative law judge regarding the issuance of permits for the facility. Prepared applications for the following permits: state and federal air permits (includes PSD), Corps of Engineers dredge-and-fill permit, erosion control plan, municipal approvals (zoning), state solid waste permit, residue handling permit, FAA approval, industrial waste discharge, and Susquehanna River Basin Commission water consumption permit.

Construction Phase Services

Reviewed vendor construction drawings and submittals, monitored construction progress of vendor, reviewed and approved vendor's construction progress payment requests, performed periodic, independent field tests, monitored equipment installation and field testing, provided inspections by specialty groups, provided full-time resident engineering services, assisted with change orders/claims and arbitration, conducted checkout of completed subsystems, developed acceptance testing protocol and witnessed acceptance testing, reviewed and provided final verification of acceptance test results. The facility is operational.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	Malcolm Pirnie, Inc.	Washington, DC	Prime
b.	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER 10
21. TITLE AND LOCATION (City and State) Review of Damaged Air Pollution Control System Clearwater, FL		22. YEAR COMPLETED PROFESSIONAL SERVICES 2005-06 CONSTRUCTION (If applicable) N/A
23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER Utilities/ Solid Waste Department Pinellas County, Florida	b. POINT OF CONTACT NAME Bob Hauser	c. POINT OF CONTACT TELEPHONE NUMBER 727-464-7500
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)		Fees: \$ 45,997

Malcolm Pirnie provided an independent evaluation of the facility's air pollution control system failure and a technical review of the cause of the failure and subsequent damage.

Following an extensive failure of a major component of the air pollution control system at the Pinellas County 3,150 ton per day (tpd) Waste-to-Energy Facility in 2005, Malcolm Pirnie was engaged by the County to conduct an independent assessment of the damage associated with the spray dryer absorbers cone hoppers failure and support the subsequent repair design and construction activities. The following services were provided:



- Performed initial damage assessment;
- Obtained from the County and review the various documents, drawings, maintenance records and control room logs associated with the damaged equipment and overall plant operations;
- Performed relevant drawing document review, review past maintenance practices and operations logs;
- Reviewed Wheelabrator's proposed repair plans, schedule and materials;
- Performed a comprehensive facility inspection to review existing conditions, extent of damage and make an independent evaluation of the cause of the equipment failure and subsequent damage;
- Monitored demolition;
- Performed a technical assessment of the damaged materials that included metallurgical testing and evaluation; and
- Prepared a Summary Report of findings and independent Engineering opinion of the reasons for the equipment failure



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT		
a.	(1) FIRM NAME Malcolm Pirnie, Inc.	(2) FIRM LOCATION (City and State) Tampa, FL
		(3) ROLE Prime
b.	(1) FIRM NAME	(2) FIRM LOCATION (City and State)
		(3) ROLE

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS

26. NAMES OF KEY PERSONNEL (From Section E, Block 12)	27. ROLE IN THIS CONTRACT (From Section E, Block 13)	28. EXAMPLE PROJECTS LISTED IN SECTION F (Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role.)									
		1	2	3	4	5	6	7	8	9	10
Sam Rosania	• Project Officer	X	X	X		X		X			X
Robert French, PE, BCEE	• Project Manager		X		X			X			
Andre Dieffenthaler, PE	• Principal-In-Charge										
Stephen Schwarz, PE, BCEE	• QA/QC	X	X	X	X	X		X	X	X	X
Leah Richter, PE	• QA/QC, Service Agreement Compliance & Financial	X	X			X		X	X		
Pat Patton	• Operations & Maintenance	X	X	X	X	X		X	X	X	X
Michael Deloach	• Operations & Maintenance	X		X		X					
Tony Guillen, PE, PMP	• Operations & Maintenance	X	X		X						
Christopher Tilman, PE	• Operations & Maintenance	X	X	X	X			X			
Garth White	• Operations & Maintenance	X	X		X						
T.J. Theriault	• Operations & Maintenance	X	X		X						
Amit Chattopadhyay, PE, BCEE	• Mechanical & Thermal	X	X	X	X	X	X	X	X	X	
Joe Krupa, PE	• Mechanical & Thermal	X	X	X			X		X	X	
Tom Henderson	• Service Agreement Compliance & Financial	X	X						X		
Cindy Eckert	• Service Agreement Compliance & Financial	X	X		X						
Audrey Haudricourt, PE	• Electrical & DCS	X	X	X							
Mike Sutton, PE	• Electrical & DCS	X		X							
Kushala Gowda	• Regulatory Compliance & Permitting	X	X		X			X			
Dave Cibik, PE	• Regulatory Compliance & Permitting	X		X				X			
Lynn Spivey	• Regulatory Compliance & Permitting										
Tammy Stankunas	• Regulatory Compliance & Permitting	X		X				X			
Pieter Conradie, PE	• Civil & Site	X	X								
Steve Jones	• Civil & Site										
Roger Akerman	• Civil & Site										

29. EXAMPLE PROJECTS KEY


NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)	NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)
1	Solid Waste Authority of Palm Beach County: Consulting Engineering for North County Resource Recovery Facility & New Waste to Energy Facility and Owner's Agent Services/ West Palm Beach, Florida	6	Union County Utilities Authority: Resource Recovery Facility/ Rahway, New Jersey
2	Broward County Waste and Recycling Services Operations Monitoring and Solid Waste Management Program/ Broward County, Florida	7	Lee County: Resource Recovery Project/ Fort Myers, Florida
3	City of Tampa: McKay Bay Retrofit/Reconstruction Project/ Tampa, Florida	8	Fairfax County: Solid Waste Consulting Services/ Fairfax County, Virginia
4	Miami-Dade Department of Solid Waste Management (DSWM): Bond Engineering Services/ Miami Florida	9	York County Solid Waste Authority: Solid Waste Engineering Services/ York County, Pennsylvania
5	Lake County: Solid Waste Engineering Services/ Tavares, Florida	10	Solid Waste Department Pinellas County, FL: Independent Engineering Review of Damaged Air Pollution Control System, Pinellas County, FL

H. ADDITIONAL INFORMATION

Addition information can be found in Section 6.

AUTHORIZED REPRESENTATIVE

31. SIGNATURE



32. DATE

February 23, 2011

33. NAME AND TITLE

Andre Dieffenthaler, PE / Principal-In-Charge

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

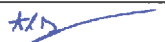
2a. FIRM (OR BRANCH OFFICE) NAME ARCADIS U.S., Inc. (Tampa, FL Office)			3. YEAR ESTABLISHED 1996	4. DUNS NUMBER 94-198-3496
2b. STREET 14025 Riveredge Drive, Suite 600			5. OWNERSHIP	
2c. CITY Tampa	2d. STATE FL	2e. ZIP CODE 33637	a. TYPE C Corporation	
6a. POINT OF CONTACT NAME AND TITLE Carlton Serrette, Vice President			b. SMALL BUSINESS STATUS N.A.	
6b. TELEPHONE NUMBER (813) 353-5770	6c. E-MAIL ADDRESS Carlton.serrette@arcadis-us.com		7. NAME OF FIRM (If block 2a is a branch office) (Malcolm Pirnie is the Water Division of ARCADIS U.S. Inc.)	
8a. FORMER FIRM NAME(S) (If any) N.A.			8b. YR. ESTABLISHED	8c. DUNS NUMBER

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. No. of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) Firm	(2) Branch			
08	CADD Technician	78	5	A04	Air Pollution Control	1
10	Chemical Engineer	31	5	A12	Automation; Controls; Instrumentation	2
12	Civil Engineer	234	4	C15	Construction Management	4
13	Communications Engineer	1		E03	Electrical Studies and Design	1
14	Computer Programmer	63	5	E07	Energy Conservation; New Energy Sources	1
16	Construction Manager	61	1	E09	Envir. Impact Studies, Assessments or Statements	2
19	Ecologist	6		E11	Environmental Planning	1
21	Electrical Engineer	51	4	E12	Environmental Remediation	4
23	Environmental Engineer	389	25	G04	GIS Svcs.: Development, Analysis, Data Collection	1
24	Environmental Scientist	111	4	H03	Hazardous, Toxic, Radioactive Waste Remediation	1
27	Foundation/Geotech Engineer	1		I03	Industrial Waste Treatment	1
29	GIS Specialist	8	1	S02	Security Systems; Intruder and Smoke Detection	1
30	Geologist	35	15	S04	Sewage Collection, Treatment and Disposal	7
34	Hydrologist	51	2	S07	Solid Wastes; Incineration; Landfill	4
42	Mechanical Engineer	31		S13	Storm Water Handling and Facilities	1
55	Soils Engineer	9		U01	Unexploded Ordnance Remediation	4
57	Structural Engineer	20	1	U02	Urban Renewal; Community Development	1
58	Technician/Analyst	73	4	W02	Water Resources; Hydrology; Ground Water	2
62	Water Resources Engineer	16		W03	Water Supply, Treatment and Distribution	5
	Management Consultant	51	3		Program Management	1
	Other	304	26		Information Technology	2
	Total	1,624	105		Management Consulting	4

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS (Insert revenue index number shown at right)		PROFESSIONAL SERVICES REVENUE INDEX NUMBER	
a. Federal Work	5	1. Less than \$100,000	6. \$2 million to less than \$5 million
b. Non-Federal Work	7	2. \$100,000 to less than \$250,000	7. \$5 million to less than \$10 million
c. Total Work	7	3. \$250,000 to less than \$500,000	8. \$10 million to less than \$25 million
		4. \$500,000 to less than \$1 million	9. \$25 million to less than \$50 million
		5. \$1 million to less than \$2 million	10. \$50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE 	b. DATE February 23, 2011
c. NAME AND TITLE Andre Dieffenthaler, PE / Principal-In-Charge	

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)


2a. FIRM (OR BRANCH OFFICE) NAME ARCADIS U.S., Inc. (Fort Myers, FL Office)			3. YEAR ESTABLISHED 1999	4. DUNS NUMBER N/A
2b. STREET 4315 Metro Parkway, Suite 520			5. OWNERSHIP	
2c. CITY Fort Myers	2d. STATE FL	2e. ZIP CODE 33916	a. TYPE C Corporation	
6a. POINT OF CONTACT NAME AND TITLE Edward Balchon, Vice President			b. SMALL BUSINESS STATUS N.A.	
6b. TELEPHONE NUMBER (813) 242-7201		6c. E-MAIL ADDRESS EBalchon@PIRNIE.com		7. NAME OF FIRM (If block 2a is a branch office) (Malcolm Pirnie is the Water Division of ARCADIS U.S. Inc.)
8a. FORMER FIRM NAME(S) (If any) N.A.			8b. YR. ESTABLISHED	8c. DUNS NUMBER

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. No. of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) Firm	(2) Branch			
08	CADD Technician	78		A04	Air Pollution Control	1
10	Chemical Engineer	31	1	A12	Automation; Controls; Instrumentation	1
12	Civil Engineer	234	3	C15	Construction Management	4
13	Communications Engineer	1		E03	Electrical Studies and Design	1
14	Computer Programmer	63		E07	Energy Conservation; New Energy Sources	1
16	Construction Manager	61		E09	Envir. Impact Studies, Assessments or Statements	1
19	Ecologist	6		E11	Environmental Planning	1
21	Electrical Engineer	51		E12	Environmental Remediation	1
23	Environmental Engineer	389		G04	GIS Svcs.: Development, Analysis, Data Collection	1
24	Environmental Scientist	111		H03	Hazardous, Toxic, Radioactive Waste Remediation	1
27	Foundation/Geotech Engineer	1		I03	Industrial Waste Treatment	1
29	GIS Specialist	8		S02	Security Systems; Intruder and Smoke Detection	1
30	Geologist	35		S04	Sewage Collection, Treatment and Disposal	1
34	Hydrologist	51		S07	Solid Wastes; Incineration; Landfill	3
42	Mechanical Engineer	31		S13	Storm Water Handling and Facilities	1
55	Soils Engineer	9		U01	Unexploded Ordnance Remediation	1
57	Structural Engineer	20		U02	Urban Renewal; Community Development	1
58	Technician/Analyst	73	1	W02	Water Resources; Hydrology; Ground Water	1
62	Water Resources Engineer	16		W03	Water Supply, Treatment and Distribution	1
	Management Consultant	51			Program Management	3
	Other	304			Information Technology	1
	Total	1,624	5		Management Consulting	2

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS (Insert revenue index number shown at right)		PROFESSIONAL SERVICES REVENUE INDEX NUMBER	
a. Federal Work	1	1. Less than \$100,000	6. \$2 million to less than \$5 million
b. Non-Federal Work	5	2. \$100,000 to less than \$250,000	7. \$5 million to less than \$10 million
c. Total Work	5	3. \$250,000 to less than \$500,000	8. \$10 million to less than \$25 million
		4. \$500,000 to less than \$1 million	9. \$25 million to less than \$50 million
		5. \$1 million to less than \$2 million	10. \$50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE 	b. DATE February 23, 2011
c. NAME AND TITLE Andre Dieffenthaller, PE / Principal-In-Charge	

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME ARCADIS U.S., Inc. (Sarasota, FL Office)			3. YEAR ESTABLISHED 2006	4. DUNS NUMBER N.A.
2b. STREET 101 Arthur Andersen Boulevard, Suite 280			5. OWNERSHIP	
2c. CITY Sarasota			2d. STATE FL	2e. ZIP CODE 34232
6a. POINT OF CONTACT NAME AND TITLE Edward Balchon, Vice President			a. TYPE C Corporation	
6b. TELEPHONE NUMBER (941) 379-7121			b. SMALL BUSINESS STATUS N.A.	
6c. E-MAIL ADDRESS EBalchon@PIRNIE.com			7. NAME OF FIRM (If block 2a is a branch office) (Malcolm Pirnie is the Water Division of ARCADIS U.S. Inc.)	
8a. FORMER FIRM NAME(S) (If any) N.A.			8b. YR. ESTABLISHED	8c. DUNS NUMBER

9. EMPLOYEES BY DISCIPLINE

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Function Code	b. Discipline	c. No. of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) Firm	(2) Branch			
08	CADD Technician	78		A04	Air Pollution Control	1
10	Chemical Engineer	31		A12	Automation; Controls; Instrumentation	1
12	Civil Engineer	234	1	C15	Construction Management	3
13	Communications Engineer	1		E03	Electrical Studies and Design	1
14	Computer Programmer	63		E07	Energy Conservation; New Energy Sources	1
16	Construction Manager	61		E09	Envir. Impact Studies, Assessments or Statements	3
19	Ecologist	6		E11	Environmental Planning	1
21	Electrical Engineer	51		E12	Environmental Remediation	1
23	Environmental Engineer	389		G04	GIS Svcs.: Development, Analysis, Data Collection	1
24	Environmental Scientist	111		H03	Hazardous, Toxic, Radioactive Waste Remediation	2
27	Foundation/Geotech Engineer	1		I03	Industrial Waste Treatment	1
29	GIS Specialist	8		S02	Security Systems; Intruder and Smoke Detection	1
30	Geologist	35		S04	Sewage Collection, Treatment and Disposal	3
34	Hydrologist	51	1	S07	Solid Wastes; Incineration; Landfill	1
42	Mechanical Engineer	31		S13	Storm Water Handling and Facilities	1
55	Soils Engineer	9		U01	Unexploded Ordnance Remediation	1
57	Structural Engineer	20		U02	Urban Renewal; Community Development	1
58	Technician/Analyst	73	2	W02	Water Resources; Hydrology; Ground Water	1
62	Water Resources Engineer	16		W03	Water Supply, Treatment and Distribution	1
	Management Consultant	51			Program Management	1
	Other	304			Information Technology	1
	Total	1,624	4		Management Consulting	1

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

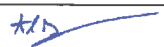
a. Federal Work	4
b. Non-Federal Work	3
c. Total Work	5

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than \$100,000
2. \$100,000 to less than \$250,000
3. \$250,000 to less than \$500,000
4. \$500,000 to less than \$1 million
5. \$1 million to less than \$2 million
6. \$2 million to less than \$5 million
7. \$5 million to less than \$10 million
8. \$10 million to less than \$25 million
9. \$25 million to less than \$50 million
10. \$50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE 	b. DATE February 23, 2011
c. NAME AND TITLE Andre Dieffenthaller, PE / Principal-In-Charge	

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)

PART II - GENERAL QUALIFICATIONS*(If a firm has branch offices, complete for each specific branch office seeking work.)*

2a. FIRM (OR BRANCH OFFICE) NAME ARCADIS U.S., Inc. (Fort Lauderdale, FL Office)			3. YEAR ESTABLISHED 1982	4. DUNS NUMBER 94-832-9669
2b. STREET 8201 Peters Road, Suite 3400			5. OWNERSHIP	
2c. CITY Plantation			2d. STATE FL	2e. ZIP CODE 33324
6a. POINT OF CONTACT NAME AND TITLE Stephen Schwarz, Vice President			a. TYPE C Corporation	
6b. TELEPHONE NUMBER (954) 525-1380			b. SMALL BUSINESS STATUS N.A.	
6c. E-MAIL ADDRESS SSchwarz@PIRNIE.com			7. NAME OF FIRM (If block 2a is a branch office) (Malcolm Pirnie is the Water Division of ARCADIS U.S. Inc.)	
8a. FORMER FIRM NAME(S) (If any) N.A.			8b. YR. ESTABLISHED	8c. DUNS NUMBER

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. No. of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) Firm	(2) Branch			
08	CADD Technician	78		A04	Air Pollution Control	1
10	Chemical Engineer	31		A12	Automation; Controls; Instrumentation	1
12	Civil Engineer	234		C15	Construction Management	6
13	Communications Engineer	1		E03	Electrical Studies and Design	1
14	Computer Programmer	63		E07	Energy Conservation; New Energy Sources	1
16	Construction Manager	61		E09	Envir. Impact Studies, Assessments or Statements	2
19	Ecologist	6	1	E11	Environmental Planning	2
21	Electrical Engineer	51	1	E12	Environmental Remediation	1
23	Environmental Engineer	389	12	G04	GIS Svcs.: Development, Analysis, Data Collection	1
24	Environmental Scientist	111	1	H03	Hazardous, Toxic, Radioactive Waste Remediation	1
27	Foundation/Geotech Engineer	1		I03	Industrial Waste Treatment	1
29	GIS Specialist	8		S02	Security Systems; Intruder and Smoke Detection	2
30	Geologist	35		S04	Sewage Collection, Treatment and Disposal	2
34	Hydrologist	51	1	S07	Solid Wastes; Incineration; Landfill	6
42	Mechanical Engineer	31	1	S13	Storm Water Handling and Facilities	1
55	Soils Engineer	9		U01	Unexploded Ordnance Remediation	1
57	Structural Engineer	20		U02	Urban Renewal; Community Development	1
58	Technician/Analyst	73		W02	Water Resources; Hydrology; Ground Water	3
62	Water Resources Engineer	16	2	W03	Water Supply, Treatment and Distribution	5
	Management Consultant	51			Program Management	1
	Other	304	2		Information Technology	1
	Total	1,624	21		Management Consulting	4

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS*(Insert revenue index number shown at right)*

a. Federal Work	1
b. Non-Federal Work	7
c. Total Work	7

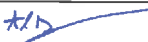
PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than \$100,000
2. \$100,000 to less than \$250,000
3. \$250,000 to less than \$500,000
4. \$500,000 to less than \$1 million
5. \$1 million to less than \$2 million

6. \$2 million to less than \$5 million
7. \$5 million to less than \$10 million
8. \$10 million to less than \$25 million
9. \$25 million to less than \$50 million
10. \$50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE 	b. DATE February 23, 2011
c. NAME AND TITLE Andre Dieffenthaller, PE / Principal-In-Charge	

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)

PART II - GENERAL QUALIFICATIONS*(If a firm has branch offices, complete for each specific branch office seeking work.)*

2a. FIRM (OR BRANCH OFFICE) NAME ARCADIS U.S., INC. (Miami, FL Office)			3. YEAR ESTABLISHED 2002	4. DUNS NUMBER N.A.
2b. STREET 5201 Blue Lagoon Drive, 9th Floor			5. OWNERSHIP	
2c. CITY Miami			2d. STATE FL	2e. ZIP CODE 33126
6a. POINT OF CONTACT NAME AND TITLE Celia Earle, Senior Associate			a. TYPE C Corporation	
6b. TELEPHONE NUMBER (954) 525-1665			b. SMALL BUSINESS STATUS N.A.	
6c. E-MAIL ADDRESS Celia.Earle@ARCADIS-US.com			7. NAME OF FIRM (If block 2a is a branch office) (Malcolm Pirnie is the Water Division of ARCADIS U.S. Inc.)	
8a. FORMER FIRM NAME(S) (If any)			8b. YR. ESTABLISHED	8c. DUNS NUMBER

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. No. of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) Firm	(2) Branch			
08	CADD Technician	78		A04	Air Pollution Control	1
10	Chemical Engineer	31		A12	Automation; Controls; Instrumentation	1
12	Civil Engineer	234		C15	Construction Management	1
13	Communications Engineer	1		E03	Electrical Studies and Design	1
14	Computer Programmer	63		E07	Energy Conservation; New Energy Sources	1
16	Construction Manager	61		E09	Envir. Impact Studies, Assessments or Statements	1
19	Ecologist	6		E11	Environmental Planning	1
21	Electrical Engineer	51		E12	Environmental Remediation	1
23	Environmental Engineer	389		G04	GIS Svcs.: Development, Analysis, Data Collection	1
24	Environmental Scientist	111		H03	Hazardous, Toxic, Radioactive Waste Remediation	1
27	Foundation/Geotech Engineer	1		I03	Industrial Waste Treatment	1
29	GIS Specialist	8		S02	Security Systems; Intruder and Smoke Detection	1
30	Geologist	35		S04	Sewage Collection, Treatment and Disposal	1
34	Hydrologist	51		S07	Solid Wastes; Incineration; Landfill	1
42	Mechanical Engineer	31	1	S13	Storm Water Handling and Facilities	1
55	Soils Engineer	9		U01	Unexploded Ordnance Remediation	1
57	Structural Engineer	20		U02	Urban Renewal; Community Development	1
58	Technician/Analyst	73		W02	Water Resources; Hydrology; Ground Water	1
62	Water Resources Engineer	16		W03	Water Supply, Treatment and Distribution	1
	Management Consultant	51			Program Management	1
	Other	304			Information Technology	1
	Total	1,624	1		Management Consulting	1

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS
(Insert revenue index number shown at right)

a. Federal Work	1
b. Non-Federal Work	1
c. Total Work	1

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

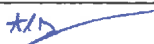
1. Less than \$100,000
2. \$100,000 to less than \$250,000
3. \$250,000 to less than \$500,000
4. \$500,000 to less than \$1 million
5. \$1 million to less than \$2 million

6. \$2 million to less than \$5 million
7. \$5 million to less than \$10 million
8. \$10 million to less than \$25 million
9. \$25 million to less than \$50 million
10. \$50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE



b. DATE

February 23, 2011

c. NAME AND TITLE

Andre Dieffenthaler, PE / Principal-In-Charge

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

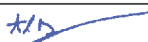
2a. FIRM (OR BRANCH OFFICE) NAME ARCADIS U.S., Inc.(West Palm Beach, FL Office)			3. YEAR ESTABLISHED 2004	4. DUNS NUMBER N.A.
2b. STREET 500 Australian Avenue South, Suite 638			5. OWNERSHIP	
2c. CITY West Palm Beach	2d. STATE FL	2e. ZIP CODE 33401	a. TYPE C Corporation	
6a. POINT OF CONTACT NAME AND TITLE Randy Fouch, Senior Associate			b. SMALL BUSINESS STATUS N.A.	
6b. TELEPHONE NUMBER (561) 820-4890		6c. E-MAIL ADDRESS RFouch@PIRNIE.com		
7. NAME OF FIRM (If block 2a is a branch office) (Malcolm Pirnie is the Water Division of ARCADIS U.S. Inc.)				
8a. FORMER FIRM NAME(S) (If any) N.A.			8b. YR. ESTABLISHED	8c. DUNS NUMBER

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. No. of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) Firm	(2) Branch			
08	CADD Technician	78		A04	Air Pollution Control	1
10	Chemical Engineer	31		A12	Automation; Controls; Instrumentation	1
12	Civil Engineer	234		C15	Construction Management	1
13	Communications Engineer	1		E03	Electrical Studies and Design	1
14	Computer Programmer	63		E07	Energy Conservation; New Energy Sources	1
16	Construction Manager	61		E09	Envir. Impact Studies, Assessments or Statements	1
19	Ecologist	6		E11	Environmental Planning	1
21	Electrical Engineer	51		E12	Environmental Remediation	1
23	Environmental Engineer	389		G04	GIS Svcs.: Development, Analysis, Data Collection	1
24	Environmental Scientist	111		H03	Hazardous, Toxic, Radioactive Waste Remediation	1
27	Foundation/Geotech Engineer	1		I03	Industrial Waste Treatment	1
29	GIS Specialist	8		S02	Security Systems; Intruder and Smoke Detection	1
30	Geologist	35		S04	Sewage Collection, Treatment and Disposal	1
34	Hydrologist	51		S07	Solid Wastes; Incineration; Landfill	1
42	Mechanical Engineer	31		S13	Storm Water Handling and Facilities	1
55	Soils Engineer	9		U01	Unexploded Ordnance Remediation	1
57	Structural Engineer	20		U02	Urban Renewal; Community Development	1
58	Technician/Analyst	73	1	W02	Water Resources; Hydrology; Ground Water	1
62	Water Resources Engineer	16		W03	Water Supply, Treatment and Distribution	1
	Management Consultant	51			Program Management	1
	Other	304			Information Technology	1
	Total	1,624	1		Management Consulting	1

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS (Insert revenue index number shown at right)		PROFESSIONAL SERVICES REVENUE INDEX NUMBER	
a. Federal Work	1	1. Less than \$100,000	6. \$2 million to less than \$5 million
b. Non-Federal Work	1	2. \$100,000 to less than \$250,000	7. \$5 million to less than \$10 million
c. Total Work	1	3. \$250,000 to less than \$500,000	8. \$10 million to less than \$25 million
		4. \$500,000 to less than \$1 million	9. \$25 million to less than \$50 million
		5. \$1 million to less than \$2 million	10. \$50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE 	b. DATE February 23, 2011
c. NAME AND TITLE Andre Dieffenthaler, PE / Principal-In-Charge	

ARCHITECT-ENGINEER QUALIFICATIONS1. SOLICITATION NUMBER (If any)
101-0120-CN (AM)**PART II - GENERAL QUALIFICATIONS***(If a firm has branch offices, complete for each specific branch office seeking work.)*


2a. FIRM (OR BRANCH OFFICE) NAME Earthshine Environmental, Inc.			3. YEAR ESTABLISHED 2003	4. DUNS NUMBER N/A
2b. STREET 19046 Bruce B. Downs Blvd. , Suite 237			5. OWNERSHIP	
2c. CITY Tampa			2d. STATE FL	2e. ZIP CODE 33647
6a. POINT OF CONTACT NAME AND TITLE Tamara L. Stankunas, P.G.			a. TYPE S Chapter Corporation	
6b. TELEPHONE NUMBER 813-545-7067			b. SMALL BUSINESS STATUS WMBE/SBE	
6c. E-MAIL ADDRESS tstankunas@earthshineinc.com			7. NAME OF FIRM (If block 2a is a branch office)	
8a. FORMER FIRM NAME(S) (If any) N/A			8b. YR. ESTABLISHED N/A	8c. DUNS NUMBER N/A

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. No. of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) FIRM	(2) BRANCH			
30	Geologist	1		S07	Waste-to-Energy Facility and integrated solid waste facility siting, regulatory compliance management, operations monitoring, and permitting (e.g. air, water, stormwater, solid waste), and refurbishment/expansion permitting. Compliance management and siting of various industrial sites and landfill compliance. Reporting for regulatory compliance and Facility owner annual operations.	2
				E09	Multi-media assessment, regulatory support, and remediation planning. Environmental risk assessment.	1
				S09	Permitting & compliance for metals recycling and resource recovery facilities	1
				W02	Well design, permitting, groundwater monitoring, and regulatory support	1
				E12	Environmental remediation planning and design.	1
	Total	1				

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS <i>(Insert revenue index number shown at right)</i>		PROFESSIONAL SERVICES REVENUE INDEX NUMBER	
a. Federal Work		1. Less than \$100,000	6. \$2 million to less than \$5 million
b. Non-Federal Work	2	2. \$100,000 to less than \$250,000	7. \$5 million to less than \$10 million
c. Total Work	2	3. \$250,000 to less than \$500,000	8. \$10 million to less than \$25 million
		4. \$500,000 to less than \$1 million	9. \$25 million to less than \$50 million
		5. \$1 million to less than \$2 million	10. \$50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE 	b. DATE February 18, 2011
c. NAME AND TITLE Tamara L. Stankunas, P.G.-President	

Statements and Documentation

- State of Florida, Department of State, Division of Corporations - Certificate of Status
- State of Florida, Department of State, Division of Corporation - Certificate of Authorization
- Florida State Office of Diversity, Department of Management Svcs.- Certificate(s) of Florida Small and Minority Business
- Hillsborough County Business Tax Receipt and Office Information
- State of Florida, Board of Professional Engineers

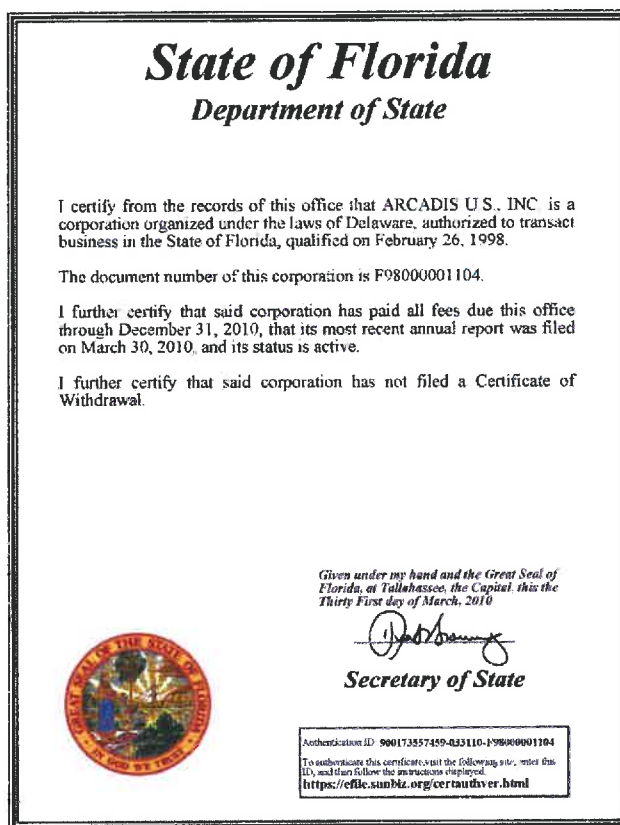




Statements and Documentation

As requested the following certificates are presented on this page.

- State of Florida, Department of State, Division of Corporations - Certificate of Status
- State of Florida, Board of Professional Engineers - Certificate of Authorization
- Florida State Office of Diversity, Department of Management Services - Certificate(s) of Florida Small and Minority Business
(This Certificate is not include as it is not applicable to Malcolm Pirnie.)
- Hillsborough County Business Tax Receipt and Office Information
- State of Florida, Board of Professional Engineers, or other applicable certification for all professionals included in proposal.

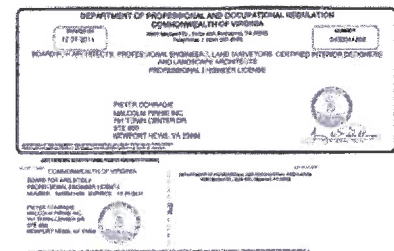
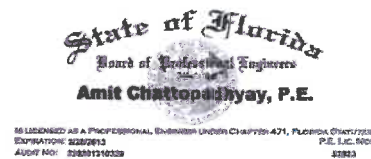


2010-2011 HILLSBOROUGH COUNTY BUSINESS TAX RECEIPT				EXPIRES 9-30-2011		FOLIO NO.	
FACILITIES OR UNITS		ROOMS	SEATS	EMPLOYEES	24093		
CATEGORY CODE		BUSINESS TYPE		H. WAIVER		TAX	
280.052		PUBLIC SERVICE - ENVIRONMENTAL CONSULTANT				22.09	
BUSINESS LOCATION		1300 E 8TH AVE F-100 TAMPA 33605		BUSINESS TAX		- \$24.20	
NAME		MALCOLM PIRNIE INC		Check Tendered:		\$24.20	
MAILING ADDRESS		1300 E 8TH AVE F-100 TAMPA FL 33605		2010-2011			
BUSINESS TAX				DOUG ELDEN, TAX COLLECTOR 813-636-6200			
HAS HEREBY PAID A PAYABLE TAX TO EXTEND				THIS BECOMES A TAX RECEIPT WHEN VALIDATED.			
ON BUSINESS, PROFESSIONAL, OR OCCUPATION SPECIFIED HEREON							
4106 02409300007 000022004 000000000							

We are in the process of updating our Hillsborough County business tax receipt to reflect our new address. Should the County require proof of this update, please contact Robert French, the proposed project manager.



The Water Division of ARCADIS



Certificate(s) of Insurance

- General Liability – Auto – Umbrella – Workers Compensation
- Professional Liability





Certificates of Insurance

The following Certificates of Insurance are presented on the following pages:

- General Liability - Auto - Umbrella - Workers Compensation
- Professional Liability



CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY)
12/27/2010

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Aon Risk Services South, Inc. Franklin TN Office 501 Corporate Centre Drive Suite 300 Franklin TN 37067 USA		CONTACT NAME: PHONE (A/C. No. Ext): (866) 283-7122 FAX (A/C. No.): (847) 953-5390 E-MAIL ADDRESS: PRODUCER CUSTOMER ID #: 570000005571																						
INSURED ARCADIS U.S., Inc. 630 Plaza Dr Ste 200 Highlands Ranch CO 80129-2379 USA		<table border="1"><thead><tr><th colspan="2">INSURER(S) AFFORDING COVERAGE</th><th>NAIC #</th></tr></thead><tbody><tr><td>INSURER A:</td><td>Greenwich Insurance Company</td><td>22322</td></tr><tr><td>INSURER B:</td><td>XL Specialty Insurance Co</td><td>37885</td></tr><tr><td>INSURER C:</td><td></td><td></td></tr><tr><td>INSURER D:</td><td></td><td></td></tr><tr><td>INSURER E:</td><td></td><td></td></tr><tr><td>INSURER F:</td><td></td><td></td></tr></tbody></table>		INSURER(S) AFFORDING COVERAGE		NAIC #	INSURER A:	Greenwich Insurance Company	22322	INSURER B:	XL Specialty Insurance Co	37885	INSURER C:			INSURER D:			INSURER E:			INSURER F:		
INSURER(S) AFFORDING COVERAGE		NAIC #																						
INSURER A:	Greenwich Insurance Company	22322																						
INSURER B:	XL Specialty Insurance Co	37885																						
INSURER C:																								
INSURER D:																								
INSURER E:																								
INSURER F:																								

COVERAGES

CERTIFICATE NUMBER: 570041112202

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

Limits shown are as requested

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Contractual Liability GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC			GEC001076109 General Liability	01/01/2011	01/01/2012	EACH OCCURRENCE	\$1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$1,000,000
							MED EXP (Any one person)	\$10,000
							PERSONAL & ADV INJURY	\$1,000,000
							GENERAL AGGREGATE	\$2,000,000
							PRODUCTS - COMP/OP AGG	\$2,000,000
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON OWNED AUTOS <input checked="" type="checkbox"/> Property Damage to Others			AEC001075809 Auto (AOS) AEC001719507 Mass Auto	01/01/2011	01/01/2012	COMBINED SINGLE LIMIT (Ea accident)	\$1,000,000
					01/01/2011	01/01/2012	BODILY INJURY (Per person)	
							BODILY INJURY (Per accident)	
							PROPERTY DAMAGE (Per accident)	
	UMBRELLA LIAB <input type="checkbox"/> EXCESS LIAB DEDUCTIBLE RETENTION						EACH OCCURRENCE	
							AGGREGATE	
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	RWD943516305 Workers Compensation RWR943516705 State of Wisconsin	01/01/2011	01/01/2012	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER	
					01/01/2011	01/01/2012	E.L. EACH ACCIDENT	\$1,000,000
							E.L. DISEASE-EA EMPLOYEE	\$1,000,000
							E.L. DISEASE-POLICY LIMIT	\$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Cancellation Provision shown herein is subject to shorter or longer time periods depending on the jurisdiction of, and reason for, the cancellation.

CERTIFICATE HOLDER**CANCELLATION**

ARCADIS U.S., INC. 630 Plaza Drive, Suite 200 Highlands Ranch CO 80129 USA	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE <i>Aon Risk Services South Inc.</i>

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ACORD 25 (2009/09)

The ACORD name and logo are registered marks of ACORD

Holder Identifier :

Certificate No : 570041112202



CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY)
01/10/2011

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Aon Risk Services South, Inc. Franklin TN Office 501 Corporate Centre Drive Suite 300 Franklin TN 37067 USA	CONTACT NAME: PHONE (A/C. No. Ext): (866) 283-7122 FAX (A/C. No.): (847) 953-5390 E-MAIL ADDRESS: PRODUCER CUSTOMER ID #: 570000005571																					
INSURED ARCADIS U.S., Inc. 630 Plaza Dr Ste 200 Highlands Ranch CO 80129-2379 USA	<table border="1"><thead><tr><th colspan="2">INSURER(S) AFFORDING COVERAGE</th><th>NAIC #</th></tr></thead><tbody><tr><td>INSURER A:</td><td>Lexington Insurance Company</td><td>19437</td></tr><tr><td>INSURER B:</td><td></td><td></td></tr><tr><td>INSURER C:</td><td></td><td></td></tr><tr><td>INSURER D:</td><td></td><td></td></tr><tr><td>INSURER E:</td><td></td><td></td></tr><tr><td>INSURER F:</td><td></td><td></td></tr></tbody></table>	INSURER(S) AFFORDING COVERAGE		NAIC #	INSURER A:	Lexington Insurance Company	19437	INSURER B:			INSURER C:			INSURER D:			INSURER E:			INSURER F:		
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INSURER B:																						
INSURER C:																						
INSURER D:																						
INSURER E:																						
INSURER F:																						

COVERAGES**CERTIFICATE NUMBER:** 5700417151**REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

Limits shown are as requested

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC						EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DEDUCTIBLE RETENTION						EACH OCCURRENCE AGGREGATE
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below Y/N <input type="checkbox"/> N/A						WC STATU-TORY LIMITS <input type="checkbox"/> OTH-ER <input type="checkbox"/> E.L. EACH ACCIDENT E.L. DISEASE-EA EMPLOYEE E.L. DISEASE-POLICY LIMIT
A	Contractor Poll			015448990 Prof. & Poll. Liability SIR applies per policy terms & conditions	06/01/2010	06/01/2011	Each Claim Annual Aggregate \$1,000,000 \$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Evidence of Insurance.

For Professional Liability coverage, the Aggregate Limit is the total insurance available for claims presented within the policy period for all operations of the insured. The Limit will be reduced by payments of indemnity and expense.

CERTIFICATE HOLDER**CANCELLATION**

ARCADIS U.S., Inc. 630 Plaza Dr., Ste. 200 Highlands Ranch CO 80129-2379 USA	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE <i>Aon Risk Services South, Inc.</i>
--	---

Holder Identifier :

Certificate No : 5700417151

The terms, conditions and provisions noted below are hereby attached to the captioned certificate as additional description of the coverage afforded by the insurer(s). This attachment does not contain all terms, conditions, coverages or exclusions contained in the policy.

ARCADIS U.S., Inc.
630 Plaza Dr Ste 200
Highlands Ranch CO 80129-2379 USA

INSURER
INSURER
INSURER
INSURER
INSURER

If a policy below does not include limit information, refer to the corresponding policy on the ACORD certificate form for policy limits.

[illegible]

Certificate No : 570041376151

Key Personnel





Key Personnel Statement

Malcolm Pirnie is committed to serving Pinellas County and has the required local personnel to work on the various services anticipated for this contract.

The personnel listed in the submittal will be available for, and shall be assigned to, this project depending on the specific assignments.

Forms and References

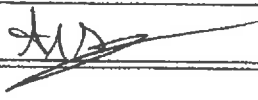
- Acknowledgement of Addenda
- W-9 Request for Taxpayer Identification Number and Certifications
- Section D Vendor References
- Page 1, Signature Page of the RFP



SECTION C - ADDENDA ACKNOWLEDGMENT FORM

Proposal Title: WASTE TO ENERGY CONSULTING SERVICES
 Proposal Number: 101-0120-CN (AM)

PLEASE ACKNOWLEDGE RECEIPT OF ADDENDA FOR THIS RFP BY SIGNING AND DATING BELOW:

ADDENDA NO.	SIGNATURE/PRINTED NAME	DATE RECEIVED
No Addenda posted	 Andre Dieffenthaler, PE Principal-In-Charge	NA

Note: Prior to submitting the response to this solicitation, it is the responsibility of the firm submitting a response to confirm if any addenda have been issued. If such document(s) has been issued, acknowledge receipt by signature and date in section above and return Addenda Acknowledgement Form with RFP. Failure to do so may result in being considered non-responsive or result in lowering the rating of a firm's proposal.

Information regarding Addenda issued is available on the Purchasing Department section of the County's website at, [www.pinellascounty.org/purchase/Current Bids1.htm](http://www.pinellascounty.org/purchase/Current%20Bids1.htm), listed under category 'Current Bids'. You will be directed to DemandStar.com

Request for Taxpayer Identification Number and Certification

Give form to the
requester. Do not
send to the IRS.

Print or type
See Specific Instructions on page 2.

Name (as shown on your income tax return)

ARCADIS U.S., INC.

Business name, if different from above

Check appropriate box: ☐ Individual/Sole proprietor ☒ Corporation ☐ Partnership
☐ Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) ▶
☐ Other (see instructions) ▶

☐ Exempt
payee

Address (number, street, and apt. or suite no.)

630 Plaza Drive, Suite 100

City, state, and ZIP code

Highlands Ranch, CO 80129

Requester's name and address (optional)

List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number

or

Employer identification number

57

0373224

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. See the instructions on page 4.

Sign
Here

Signature of
U.S. person ▶

Dean Johnson

Date ▶

1/4/2011

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,

SECTION D - VENDOR REFERENCES

Proposal Title: WASTE TO ENERGY CONSULTING SERVICES
Proposal Number: 101-0120-CN (AM)

THE FOLLOWING INFORMATION IS REQUIRED IN ORDER TO REVIEW AND PROPERLY EVALUATE YOUR PROPOSAL.

COMPANY NAME: Malcolm Pirnie, the Water Division of ARCADIS U.S., Inc.

LENGTH OF TIME COMPANY HAS BEEN IN BUSINESS: 100+ years

BUSINESS ADDRESS: 14025 Riveredge Drive, Suite 600

HOW LONG IN PRESENT LOCATION: Less than a year- 12 years Tampa

TELEPHONE NUMBER: (813) 353-5717

FAX NUMBER: (813) 903-9115

Lead office for this project- Tampa (105)

(92)

(13)

TOTAL NUMBER OF CURRENT EMPLOYEES: 5,348 FULL TIME 4,628 PART TIME 720

NUMBER OF EMPLOYEES YOU PLAN TO USE TO SERVICE THIS CONTRACT: 25

All references will be contacted by a County Designee via email, fax, mail or phone to obtain answers to questions, as applicable before an evaluation decision is made.

EITHER LOCAL COMMERCIAL OR GOVERNMENTAL REFERENCE(S) (PINELLAS COUNTY GOVERNMENT REFERENCES WILL NOT BE ACCEPTED) THAT YOU HAVE PREVIOUSLY PERFORMED SIMILAR CONTRACT SERVICES FOR:

All fields below must be completed

1 Solid Waste Authority of Palm Beach County

COMPANY NAME

West Palm Beach, Florida

CITY, STATE

Raymond H. Schauer

CONTACT PERSON

(561) 640-4000 ext4603

TELEPHONE

(561) 683-4067

FAX

rschauer@swa.org

EMAIL ADDRESS

3 Broward County Waste and Recycling Services

COMPANY NAME

Plantation, Florida

CITY, STATE

Ram N. Tewari

CONTACT PERSON

(954) 577-2392

TELEPHONE

(954) 577-2392

FAX

rtewari@broward.org

EMAIL ADDRESS

2 Miami-Dade Department of Solid Waste Management

COMPANY NAME

Miami, Florida

CITY, STATE

Asok Ganguli

CONTACT PERSON

(305) 514-6687

TELEPHONE

NA

FAX

ASOK@miamidade.gov

EMAIL ADDRESS

4 City of Tampa/McKay Bay

COMPANY NAME

Tampa, Florida

CITY, STATE

Nancy McCann

CONTACT PERSON

(813) 348-1118

TELEPHONE

NA

FAX

nancy.mccann@ci.tampa.fl.us

EMAIL ADDRESS

SECTION F - INSTRUCTIONS FOR BID SUBMITTAL

Proposal Title: WASTE TO ENERGY CONSULTING SERVICES
Proposal Number: 101-0120-CN (AM)

All proposals shall be signed in ink by authorized principals of the firm.

Proposals are to be submitted in a sealed envelope. The face of the envelope shall indicate the RFP number, name, and address of the firm, and title of the proposal.

Proposals are to be submitted to Pinellas County Purchasing Department, 400 S. Ft. Harrison Avenue, Annex Bldg, 6th Floor, Clearwater, FL 33756 by the date and time indicated on the cover sheet.

Proposals shall be submitted in one (1) original and **SEVEN** copies.

Electronic Payment (ePayables)

The Board of County Commissioners (County) is offering faster payments. The County would prefer to make payment using credit card.

Would your company accept to participate in the ePayables credit card program?

Yes ☒

No ☐

For more information about ePayables credit card program please visit Purchasing Department website www.pinellascounty.org/purchase.

Malcolm Pirnie, the Water Division of ARCADIS U.S., Inc.

Company Name



Signature

ANDRE DIEFFENTHALER

Printed Signature

Additional Information

- A. Ability of the Firm and Its Professional Personnel
- B. Firm's Experience with Projects of a Similar Size and Past Performance
- C. Volume of Work Previously Awarded by the County
- D. Effect of the Firms Current and Projected Workload
- E. Minority Business Status
- F. Location



Additional Information

A. Ability of the Firm and Its Professional Personnel

B. Firm's Experience with Projects of a Similar Size and Past Performance

C. Volume of Work Previously Awarded by the County

D. Effect of the Firms Current and Projected Workload

E. Minority Business Status

F. Location





Ability of the Firm and its Professional Personnel

Malcolm Pirnie, the Water Division of ARCADIS, (Malcolm Pirnie/ARCADIS) provides solid waste as well as water, wastewater and environmental consulting services to both public and private-sector clients. Our public-sector clients range from small municipalities to large cities, state agencies, and agencies of the United States and other governments. In the private sector, our industrial clients range from single-plant manufacturing facilities to *Fortune 500* companies with locations worldwide. Regardless of size, every client receives personal attention and responsive service from a dedicated Project Management Team and carefully selected team members.

GENERAL OVERVIEW

The Malcolm Pirnie/ARCADIS Team is expressly interested in providing Waste to Energy Consulting Services to Pinellas County under the terms of Proposal Number 101-0120-CN (AM). The waste-to-energy (WTE) Facility is clearly a critical component of the integrated Pinellas County solid waste management program. When issues arise related to WTE, Malcolm Pirnie understands that the entire solid waste management system may be affected by any proposed recommendations.

Malcolm Pirnie's Project Team has over 300 total years of combined experience in providing services similar to those requested by the County, and provides these same services for seven (7) other WTE facilities, with an annual processing capacity of over 3.5 million tons. Six of these WTE facilities are in Florida where Malcolm Pirnie is the dominant provider of such consulting engineering services. In all cases, Malcolm Pirnie serves as the Consulting Engineer and agent on behalf of the governmental facility sponsor. We believe no other firm is more qualified and able to provide the necessary expertise to help the County address any technical, contractual, or environmental issues that

may arise throughout the course of the project and service agreement term. Our current and ongoing experience with resource recovery includes development activities such as vendor procurement, permitting, contract development and negotiation, construction oversight and debt issuance support as well as performance monitoring, assistance with service agreement issues, and unique leasing arrangements.

PROJECT UNDERSTANDING AND APPROACH

Through our industry experience and familiarity with the County, we are well aware of many of the factors affecting the County's WTE program, including the facility condition, service agreement, facility performance, and regulatory compliance.

We have reviewed the Scope of Work included in the RFP and understand that this assignment is intended to provide a wide range of engineering, technical, performance monitoring and management services related to the County's 3,000 tpd WTE Facility. This section provides a description of our general project approach to operations and maintenance inspection services for the County's WTE facility.

Our approach to specific tasks will be customized based on a final agreed-upon scope of services, and designed to achieve tangible results. For discussion purposes, our general approach to these types of projects includes:

- Regular communications with the County to maintain "ready" status in our appreciation and understanding of the routine operations of the County's solid waste management program
- Attend operations meetings
- Routine facility inspections



The Water Division of ARCADIS

- Outage inspections
- Annual inspections and re-certifications
- Audits of operating data for verification of guarantees, fees and penalties
- Coordination with County's fiscal auditors
- Development of a rolling deficiency/punch list
- Respond to Emergency Events
- Monitor air and ash testing
- Annual and other Reporting
- Monitor and Inspect Construction Related Activities
- Monitor Regulatory Changes and Permit Compliance
- Provide Project Management Services
- Development of Consulting Engineering reports
- Provide other related services as directed by the County

The wide range of services outlined in the RFP Scope of Services is similar to services we have successfully provided to other WTE communities around Florida. Our Project Team has been specifically selected to address this broad range of services and to deliver all services, consultations and recommendations based on the experience and expertise of our firm and our staff. Our proven approach and actual experience has resulted in many significant improvements in facility conditions, operational performance, and in some cases has reduced pass through costs to our clients.

On-Call Engineering

Malcolm Pirnie/ARCADIS provides on-call engineering services to address a diverse spectrum of environmental issues including municipal solid waste activities. Our clients have demonstrated their high level of trust in us by retaining the firm under master service agreements spanning several years. Our large staff of experts in diverse technical specialties enables

us to optimally staff numerous concurrent projects and respond to requests on short notice.

PROJECT TEAM AND MANAGEMENT STRUCTURE

We have assembled a knowledgeable, experienced, and dedicated team of professionals for this contract. We know that one of the best services we can provide is direct access to a member of the firm who is extremely knowledgeable of the work required by the assignment. In particular, Robert French, PE, your designated Project Manager, has extensive experience with operations and monitoring operations at resource recovery facilities, and is currently serving in a similar role for the WTE facilities in Broward and Miami-Dade Counties.



Malcolm Pirnie/ARCADIS Tampa, FL Office

Our project team's day to day activities will be led locally, from our office in Tampa, FL, with the technical leadership and management of the inspection activities provided by the Project Manager, Robert French, PE. Our key project staff, including our Project Officer, Sam Rosania, and our Senior Operations Lead, Pat Patton, are located within close proximity to the County facilities and will provide quick response to County requests. Our Project Manager has committed to working from our Tampa Office to effectively lead the project team in the execution of this assignment. We believe that this level of availability is necessary to



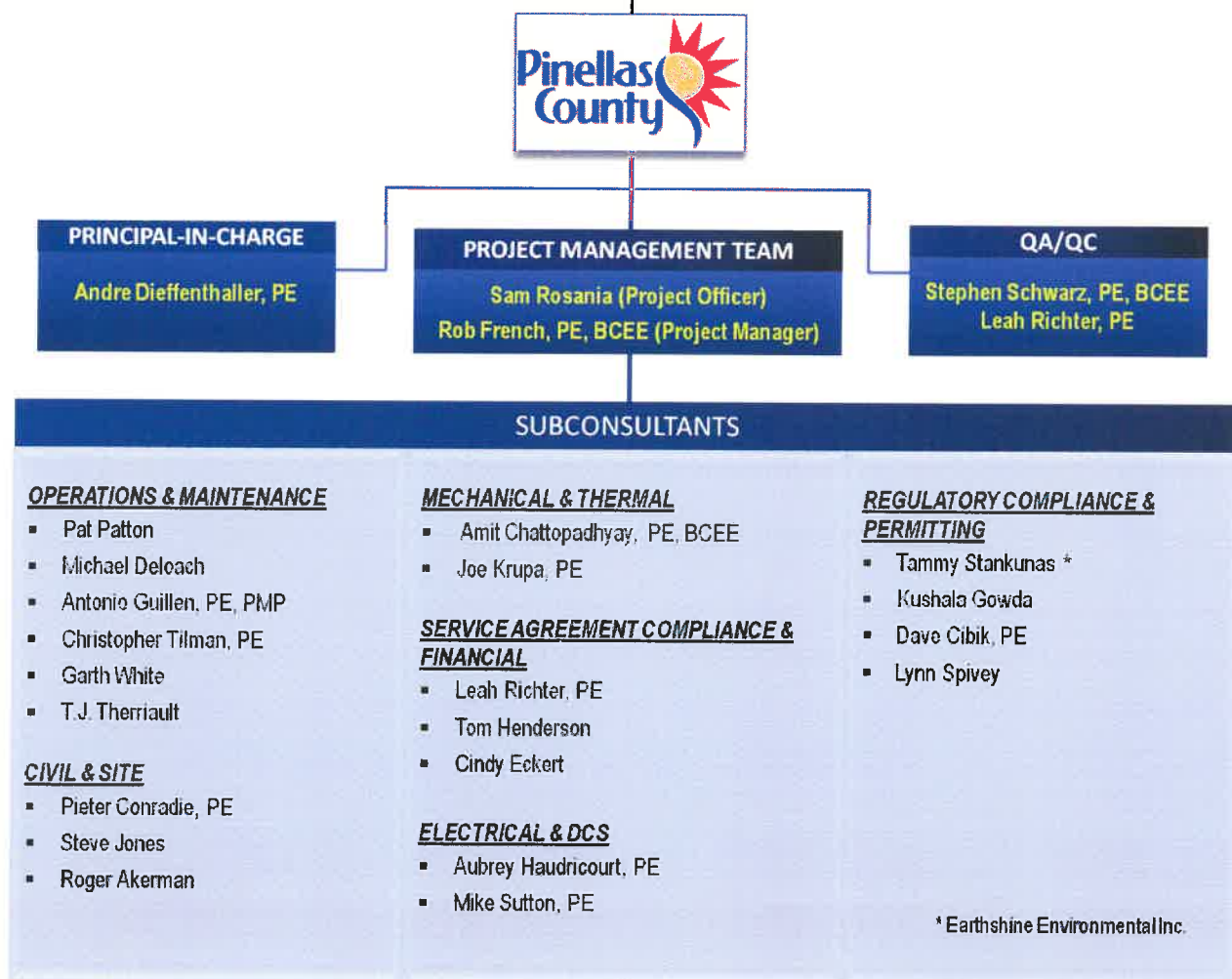
The Water Division of ARCADIS

maintain constant and open communications with the County so that project needs and challenges (particularly unforeseen ones) are addressed in the most timely and efficient manner.

Our team members, who are thoroughly versed in waste management and WTE related issues, are uniquely experienced with WTE operations and technologies, contract operation agreements, bond covenants, and comprehensive regional solid waste management programs.

We have provided below an organizational chart demonstrating our team and project management

structure. We have assembled our team on the basis of the experience and expertise required for this assignment and the proximity of key team members to the County's Facility. Of particular note is that the majority of our team has a history of successfully working together on similar projects in Florida; more projects in fact than any other consultant.



Multiple project controls instituted on our projects are designed to provide the necessary level of management of our team members and quality control of each deliverable. We review all work products for technical quality, coordinating our review frequency and timing to allow for any needed revisions within the established project schedule.

The Malcolm Pirnie/ARCADIS project team will be supported by Tammy Stankunas of Earthshine Environmental, a women-owned business enterprise (WBE). Malcolm Pirnie/ARCADIS makes it a practice to utilize minority-owned business enterprises (MBE) and women-owned business enterprises (WBE) in the normal course of our business to provide professional services on our projects and as suppliers of goods and services.

Earthshine Environmental, Inc. - SBE, WBE



EARTHSHINE
ENVIRONMENTAL INC.

Earthshine Environmental, Inc. (Earthshine) is a recognized

environmental and geologic consulting firm experienced working with Pinellas County and several WTE facilities throughout Florida. Tamara Stankunas, P.G., founder and president of Earthshine, has over 22 years of diversified environmental compliance, permitting and hazardous waste experience throughout Florida and the United States. Ms. Stankunas utilizes her extensive knowledge of Florida geology, hydrogeology, and working within the Florida regulatory framework to provide innovative and streamlined environmental services to Earthshine's clients. Earthshine Environmental, Inc. has managed and completed projects ranging from power plant siting, multi-media compliance audits and management to assessment and remediation of formerly used defense sites for the U.S. Army Corps of Engineers. Earthshine's projects include both public and private-

sector clients with specific emphasis on all phases of permitting and on-going compliance management for waste-to-energy facilities and their integrated materials processing operations. Earthshine has vast experience in managing numerous waste-to-energy projects and other solid waste related projects for clients throughout Florida.

Ms. Stankunas is a key member of our project team and has worked with several members of the Malcolm Pirnie/ARCADIS project team for nearly 20 years. Selecting a team with a track record of successful projects ensures that Pinellas County will receive the best, most cost-effective, professional services available.

OPTIMAL PROJECT STAFFING: THE KEY ELEMENT OF PROJECT SUCCESS AND CLIENT SATISFACTION

Malcolm Pirnie/ARCADIS recognizes that the ultimate measure of a successful project is a fully satisfied client, and that the key to providing this satisfaction is *people*: qualified and experienced staff committed to a project with full support from management.

Our staff routinely handles multiple simultaneous projects as well as large, complex design and construction projects. We offer a vast breadth of collective experience in addressing myriad environmental and engineering issues.

Our careful assembly of project teams begins with a thorough understanding of the project scope of work and the client's particular needs and expectations. We utilize a formalized workload management system to link project management with staff resumes and skill profiles so that the best qualified individuals can be identified and assigned for particular projects, along with well-qualified backup candidates to preclude staffing shortfalls.



The Water Division of ARCADIS

Below and on the following pages we have provided brief write-ups for our key team members. Resumes have been provided for each in Part E of Tab 1 "Standard Form (SF) 330 Part I".

PROJECT MANAGEMENT TEAM



Sam Rosania - Project Officer

Mr. Rosania has 32 years experience in both the public and private sectors and is accomplished in project administration and coordination, contracts management, waste to energy permitting, environmental health services, solid waste management, and contamination and remediation activities. Mr. Rosania has served as Project Manager for numerous integrated solid waste management projects. Mr. Rosania has developed, implemented, and administered a diverse range of environmental programs related to municipal solid waste management, recycling, special waste management, resource recovery, petroleum contamination assessment / remediation, composting, and wastewater residuals management services. He is the firms Disaster Preparedness, Response and Recovery Program Manager, with extensive experience responding to natural disasters. As the Project Officer, Mr. Rosania is responsible for committing the corporate

resources to deliver the services required under this contract in a manner that meets or exceeds our contract obligations and the County's expectations.

Robert French, PE, BCEE - Project Manager

Mr. French has more than 40 years of engineering experience. His expertise in solid waste management is recognized by the American Academy of Environmental Engineers. He has worked with several waste-to-energy programs in Florida as well as recycled material recovery, landfills (including landfill gas-to-energy) and biosolids management. His WTE program experience includes: Project Manager and Engineer of Record for the Lee County WTE facility, Project Manager of the Broward Solid Waste Disposal District with two WTE facilities, and Project Manager and Bond Engineer for the Miami-Dade Department of Solid Waste Management including their RDF Resources Recovery Facility. As your designated Project Manager, Mr. French has extensive experience with operations and performance monitoring of resource recovery facilities including auditing contract operations and regulatory compliance. Mr. French is committed to working from the Malcolm Pirnie/ARCADIS Tampa office as necessary to directly oversee the assignment and maintain close communications with the County staff.

Andre Dieffenthaler, PE - Principal in Charge

Mr. Dieffenthaler has over 20 years experience with municipal services and is the Principal-in-Charge for Pinellas County. His experience includes the conceptual planning, design, construction oversight, and permitting associated with multi-million dollar, multi-year projects throughout Florida. As Principal-in-Charge, his role on this project will be to ensure that the County's needs are met and that the project is properly staffed to meet the schedule and budget objectives for each work assignment. He will also

maintain regular communications with the project team and County, ensuring that we are providing the highest quality deliverables to the County.

Quality Assurance Review Team

Steve Schwarz, PE, BCEE - QA/QC

Mr. Schwarz has been involved in the professional practice of engineering for more than 40 years. He has been the practice leader for all solid waste projects performed by Malcolm Pirnie. His experience has included all phases of solid waste project development, including planning, design, and construction. In addition, he has served as an expert witness in several cases involving technical and contractual issues associated with solid waste projects.

Leah Richter, PE - QA/QC (and Service Agreement Compliance and Financial)

Ms. Richter has a diverse background in environmental and civil engineering. She specializes in solid waste projects involving waste-to-energy, materials recovery, recycling, and landfilling. She is primarily responsible for assisting municipal clients in South Florida with managing their solid waste management planning, operational, and capital program needs. Her experience includes project management and delivery, vendor procurement, contract compliance, regulatory permitting, annual reporting to bondholders/trustees, litigation support services, solid waste advisory committee support, environmental compliance, debris management oversight, and operation and maintenance evaluation. Ms. Richter is currently the Principal in Charge of our similar services in Palm Beach County, FL, which includes the implementation of a new 3,000 tpd waste to energy facility, the first of its kind in the US in more than 15 years.

WTE Operations / Maintenance

Pat Patton

Mr. Patton has 38 years of experience in the utility and solid waste industry working in waste-to-energy facilities, recycling, and hazardous waste remediation. His experience includes design, construction, and operations of various waste-to-energy and materials recovery facilities. Mr. Patton has served as the Lead Operations Monitoring Inspector for our Florida WTE operations monitoring program, has extensive knowledge of such facilities from both the operations and design standpoint. He is currently serving as technical lead for the construction oversight of a WTE facility refurbishment project in Palm Beach County as well as served as technical lead for the City of Tampa WTE facility retrofit project.

Michael R. DeLoach

Mr. DeLoach specializes in chemical and mechanical engineering disciplines, and construction oversight. He possesses experience working with municipalities on solid waste management programs, including: operations monitoring and inspections, regulatory review, economic analyses, contract interpretation, preparation of procurement documents, proposal review, compilation of data and trend analyses of waste-to-energy facilities, and construction monitoring.

Tony Guillen, PE

Tony Guillen has over 25 years of engineering and management experience in the solid waste industry, including 7 years as a design engineer and engineering manager during the conceptual design and further modifications to the Miami-Dade County RDF Resources Recovery Facility. His experience also includes 18 years at various executive management and technical positions as production director and engineering manager at the Miami-Dade RDF Resources Recovery Facility.



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Garth White

Mr. White specializes in civil and mechanical engineering disciplines and construction oversight. His experience includes operations monitoring and inspections, debris management, construction oversight, cost estimating, and trend analysis.

Chris Tilman, PE

Mr. Tilman has professional experience in solid waste engineering and management for WTE facilities, landfills, transfer stations, hauling companies, and recycling facilities. Recent experience include operations monitoring for the Lee County, Miami Dade, and Broward County WTE facilities (including facility inspections, performance evaluations, bond engineering reports, and Title V permit renewal) and contract monitoring for the Naples landfill (facility inspections and performance evaluations). Recent design experience includes assistance with the 47,000 sq. ft. Lee County Transfer Station and the 60,000-square foot Lee County Material Recovery Facility. Recent permitting experience includes Title V air permitting (including CAM plan development) for the Lee County and the McKay Bay WTE facilities, and permitting of two Class III landfills in northwest Florida.

T.J. Therriault

Mr. Therriault has over five years of experience working on a wide range of civil and environmental engineering projects. He has done work in both the private and public sector, in the areas of civil engineering, construction inspection and management, facility inspection, and environmental consulting. Project experience includes: operations monitoring, site development, various phases of site assessment, air monitoring, monitoring well installation, soil sampling and assessment, water sampling, construction cost estimating, feasibility studies, facility inspections, and surveying.

Mechanical / Thermal

Amit Chattopadhyay, PE, BCEE

Mr. Chattopadhyay has 45 years of experience in engineering and project management of waste combustion and energy recovery projects. He has significant experience in engineering and design of facilities using combustion of gas, oil, coal, and municipal refuse and wastewater sludge and waste gases, including air pollution control systems. He is proficient in steam power and gas/diesel engine power system design. Mr. Chattopadhyay also has extensive experience in managing A/E services for construction projects. Mr. Chattopadhyay serves as the Senior Thermal Advisor for all of the Malcolm Pirnie/ARCADIS WTE practice.

Joe Krupa, PE

Mr. Krupa has 14 years of experience specializing in solid waste projects involving waste-to-energy, material recovery, and biosolids management facilities. His experience includes conducting maintenance and outage inspections, performing market studies, evaluating demonstration and acceptance test results, preparing procurement documents, evaluating contract compliance, and preparing and presenting operations monitoring and feasibility engineering reports. He has assessed the efficiency of various types of solid waste and wastewater management programs, conducted pro forma analyses, transportation analysis, provided litigation support services for expert witnesses, and provided technical support during vendor negotiations.

Service Agreement Compliance / Financial

Tom Henderson

Mr. Henderson has more than 30 years experience in developing and managing large Waste-To-Energy facilities and integrated solid waste management



The Water Division of ARCADIS

systems. He has served as project manager on Waste-To-Energy facilities with more than 7,500 tons per day of waste and 211 MW of electrical generating capacity. These facilities have successfully combusted more than 51 million tons of municipal solid waste over a combined 61 years of operation. Mr. Henderson has also served as a Senior Public Works Executive with a record of accomplishment in the re-engineering and operating solid waste management programs for large urban governments with a diverse, changing, and unionized work force. His experience includes the planning, design, permitting, financing, construction, startup, and operation of projects including transfer stations, landfills, material recovery facilities and waste-to-energy facilities costing more than \$1 billion. He is a specialist in all aspects of solid waste management, including facility development, operation, and maintenance; structuring of project-backed taxable and tax-exempt debt; intergovernmental relations; budget making; managed competition; and design and utilization of information systems and office automation.

Cindy Eckert, PE

Ms. Eckert has experience working with public utilities including solid waste management where she has provided negotiations support, financial analysis, and assisted with contract development. She has assisted with the development of a LFGE Facility Agreement, preparation of annual reports, resolution of landfill operational claims, and development of amendments to operating agreements.

Electrical / DCS

Aubrey Haudricourt, PE - Electrical

Mr. Haudricourt has experience in both electrical and instrumentation engineering. He has designed and overseen the installation of power generation, controls and chemical disinfection systems for municipal water

and wastewater treatment facilities and solid waste processing facilities. Mr. Haudricourt has served as electrical engineer for annual inspections of the solid waste WTE facilities as well as ongoing WTE refurbishment construction activities.

Mike Sutton, PE

Mr. Sutton has extensive experience in the planning, design, and implementation of instrumentation and controls for water, wastewater, and solid waste processing facilities. As an instrumentation and control systems engineer, he is responsible for preparing process and instrumentation diagrams (P&IDs), coordinating electrical interfaces, developing and configuring operational strategies, and performing checkout and startup of control systems as they relate to water and wastewater treatment plants. Mr. Sutton has served as instrumentation and controls engineer for annual inspections of solid waste WTE facilities as well as ongoing WTE refurbishment construction activities.

Regulatory Compliance / Permitting

Tamara Stankunas, PG - Earthshine Environmental Inc. (SBE, WBE)

Ms. Stankunas, founder and president of Earthshine has over 22 years of diversified environmental compliance, permitting and hazardous waste experience throughout Florida and the United States. Ms. Stankunas utilizes her extensive knowledge of Florida geology, hydrogeology, and working within the Florida regulatory framework to provide innovative and streamlined environmental services to Earthshine's clients.

Kushala Gowda

Ms. Gowda has worked on a number of diverse projects for several clients in Florida. She has extensive engineering and permitting experience with water and

wastewater treatment facilities including distribution and collection systems, solid waste facilities, and stormwater management facilities. Recently, Ms. Gowda supported the air construction permit application process for a WTE refurbishment project, developed stormwater permit applications, and modified and ran calculations associated with several major solid waste capital projects (MRF, FPF, and new 3,000 tpd Waste-to-Energy Facility.)

Dave Cibik, PE

Mr. Cibik has a broad range of environmental engineering and permitting experience. His experience includes regulatory compliance in the forms of air, wastewater, stormwater, hazardous waste permitting, groundwater remediation system operation and maintenance, extensive remedial action field work and ASTM Phase I Environmental Site Assessments and Due Diligence/Compliance Reviews. Mr. Cibik also has a strong background in Health and Safety as he served as the Director of Loss Control for a large mechanical contracting firm.

Lynn Spivey

Ms. Spivey has extensive process experience in the design of water treatment systems, chemical treatment systems, diffused aeration systems, SBR systems, waste sludge treatment, water purification utilizing ion exchange systems, and plant startup. She is a highly skilled Process Engineer with a proven track record in customized design and process improvement. Particularly effective at automating and streamlining systems and ensuring improved performance based on customer requirements.

Civil/Site

Pieter Conradie, PE

Mr. Conradie has extensive experience in design, permitting and project management of solid waste

projects, including waste-to-energy, materials recovery facilities, solid waste transfer stations, wood waste processing facilities, new landfill cells and closure of existing landfills; design of landfills, incorporating specifications for liner and cap components, leachate and gas management systems and Quality Assurance/Quality Control (QA/QC) for liner and cap construction. He is responsible for design, permitting and reporting on stormwater management systems, erosion controls and landfill gas monitoring as well as compliance inspections and reporting on active and closed landfill facilities, wood waste processing facilities and transfer stations. Other experience includes landfill gas and groundwater monitoring and reporting, assessment of applications for soil reuse, preparation of stormwater management, erosion and sedimentation control, and landfill gas management reports.

Steve Jones

Mr. Jones has extensive experience in the civil/environmental engineering field serving as project manager, project designer, civil technician, and resident engineer on municipal infrastructure projects including: stormwater, street and drainage, water distribution, wastewater, reclaimed water, and land development projects. His work experience includes permitting through the Southwest Florida Water Management District (SWFWMD), South Florida Water Management District (SFWMD), Environmental Protection Commission of Hillsborough County (EPC), and Florida Department of Environmental Protection (FDEP). Clients include the Cities of Clearwater, St. Petersburg, Largo, Tarpon Springs, Pinellas Park, Gulfport, Safety Harbor, Belleair, and Belleair Bluffs, as well as Hillsborough and Pinellas Counties.

Roger Akerman

Mr. Akerman has extensive experience in the planning, design, and construction management of water and wastewater treatment and distribution projects. His experience includes project management, hydraulic evaluations, and report preparation. Mr. Akerman has also worked with a private utility, which included the planning for capital improvement projects and operational evaluations. Representative projects include: gravity and pressure pipeline design, water treatment plant and wastewater treatment plant designs, booster pump stations, chemical feed systems, and wastewater lift stations.

LOCATION OF PROJECT PERSONNEL

On the following page we have provided a table illustrating the location of our team members.

Name	Role	Location
Sam Rosania	Project Officer	Tampa, Florida
Robert French	Project Manager	Tampa, Fort Myers, and Fort Lauderdale, Florida
Andre Dieffenthaller	Principal-In-Charge	Tampa, Florida
Stephen Schwarz	QA/QC	Fort Lauderdale, Florida
Leah Richter	QA/QC Service Agreement Compliance & Financial	Fort Lauderdale, Florida
Pat Patton	Operations & Maintenance	Pat Patton
Michael Deloach	Operations & Maintenance	Michael Deloach
Antonio Guillen	Operations & Maintenance	Antonio Guillen
Christopher Tilman	Operations & Maintenance	Christopher Tilman
Garth White	Operations & Maintenance	Garth White
T.J. Therriault	Operations & Maintenance	T.J. Therriault
Amit Chattopadhyay	Mechanical & Thermal	Mahwah, New Jersey
Joe Krupa	Mechanical & Thermal	White Plains, New York
Tom Henderson	Service Agreement Compliance & Financial	Fort Lauderdale, Florida
Cindy Eckert	Service Agreement Compliance & Financial	Fort Lauderdale, Florida
Aubrey Haudricourt	Electrical & DCS	Tampa, Florida
Mike Sutton	Electrical & DCS	Tampa, Florida
Tammy Stankunas, Earthshine Environmental	Regulatory Compliance & Permitting	Tampa, Florida
Kushala Gowda	Regulatory Compliance & Permitting	Fort Lauderdale, Florida
Dave Cibik	Regulatory Compliance & Permitting	Tampa, Florida
Lynn Spivey	Regulatory Compliance & Permitting	Tampa, Florida
Pieter Conradie	Civil & Site	Newport News, Virginia
Steve Jones	Civil & Site	Tampa, Florida
Roger Akerman	Civil & Site	Tampa, Florida

Schedule and Capacity to Perform

Malcolm Pirnie/ARCADIS currently employs over 5,000 engineers, technicians and administrative personnel with diverse skills and experience. This large labor pool provides backup personnel who are available to fill potential team vacancies in each of the firm's technical disciplines. Malcolm Pirnie/ARCADIS has no profit centers; therefore, we can draw on the appropriate staff resources for any project regardless of geographic location. We deliver superior client service and technical excellence by enhancing the work of our local project teams with the optimal technical expertise for each project's particular needs. When retaining Malcolm Pirnie/ARCADIS, our clients know that their assignments will be fully staffed by well-qualified individuals who are accustomed to working as a team.

Additional Information

A. Ability of the Firm and Its Professional Personnel

B. Firm's Experience with Projects of a Similar Size and Past Performance

C. Volume of Work Previously Awarded by the County

D. Effect of the Firms Current and Projected Workload

E. Minority Business Status

F. Location





Pinellas County, FL
Waste to Energy Consulting Services | 101-0120-CN (AM)
Tab 6- Additional Information

Firm's Experience with Projects of a Similar Size and Past Performance

B

EXPERIENCE WITH SIMILAR PROJECTS

Below we offer a concise summary of reference projects of similar size and nature as those defined in the Request for Proposals and have provided detailed project summaries in our standard Form 330.

1- Solid Waste Authority of Palm Beach County: Consulting Engineering for North County Resource Recovery Facility & New Waste to Energy Facility and Owner's Agent Services/ West Palm Beach, Florida

Malcolm Pirnie has served as the Solid Waste Authority's Consulting Engineer for the 2,000-tpd refuse-derived fuel (RDF) waste-to-energy facility, the North County Resource Recovery Facility (NCRRF), for more than 10 years. We recently completed the vendor negotiations with the current operator for continued operation of the facility and are currently involved in the construction oversight for the refurbishment of the existing facility while the facility continues to operate. In addition, we are in the process of assisting the Authority with the implementation of a new mass burn waste-to-energy facility with a processing capacity of 3,000 tpd, the first of its kind in the United States in more than 15 years.

Our services have included NCRRF Operations Monitoring, NCRRF Comprehensive Assessment, North County Resource Recovery Facility Negotiation of 20-Year Operation and Maintenance Agreement, NCRRF Refurbishment Procurement Services, NCRRF Construction Services Support, NCRRF Reliability Standards Support, Greenhouse Gas Mandatory Reporting Rule Requirements Support, New Waste to Energy Facility Implementation, Materials Processing Facility Inspection, Materials Processing Facility Relocation, Ferrous Processing Facility Relocation and Alternative Technologies Review.

Relevant Project Features:

- Size: \$11,067,990 (fee)
- Completion Date: Ongoing
- O & M Inspection
- Service Agreement Compliance
- Quarterly & Annual Report
- Permitting
- FERC/NERC
- New Project Development
- Vendor Negotiations
- Construction Management
- Financial Impact Analysis
- Procurement

2- Broward County Waste and Recycling Services Operations Monitoring and Solid Waste Management Program/ Broward County, Florida

Malcolm Pirnie has served as the Consulting Engineer for the Broward County Solid Waste and Resource Recovery program for more than 15 years, which consists of an integrated solid waste management program utilizing waste-to-energy, materials recycling, and landfilling. Currently, Malcolm Pirnie monitors operations of both Broward resource recovery facilities, a materials recycling facility, and ash disposal landfill, which includes the following activities:

Review of facility operating data including daily tonnage/performance reports, scale-house summaries, CEMS data, and outage reports.

Review of environmental testing results including stack testing, groundwater monitoring, and ash analyses.

Inspection of major equipment during outages.

Preparation of operations monitoring reports to summarize observation made during monthly inspections.

Preparation of semi-annual and annual reports documenting the observations made during the previous reporting period with respect to

Relevant Project Features:

- Size: \$12,905,990 (fee)
- Completion Date: Ongoing
- O & M Inspection
- Service Agreement Compliance
- Quarterly and Annual Reports
- Permitting
- Financial Impacts Analysis
- New Project Development
- Permitting
- Vendor Negotiations
- Construction Management
- Financial Impact Analysis
- Procurement



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equipment condition, adherence to contractual requirements and industry standards, permit compliance, and general operating trends.

Attendance at monthly operations meetings.

Review and assessment of the potential technical impact of changes in federal, state, and local laws and regulations.

Representation of the County with respect to any change orders/claims and arbitration.

Review of all plans and drawings provided by vendors in reference to planned modifications at the facilities or to any County-owned solid waste management facility.

Malcolm Pirnie also provides a wide variety of other solid waste management program support, including landfill design services, wetland mitigation monitoring, miscellaneous permitting support, and construction phase services.

3- City of Tampa: McKay Bay Retrofit/Reconstruction Project/ Tampa, Florida

Malcolm Pirnie oversees the McKay Bay Refuse-to-Energy Facility, a 1,000 ton per day (tpd) mass burn waste-to-energy facility, operations and performing inspections on a routine basis, particularly during scheduled maintenance, to assess the performance of the facility operator with regard to the service agreement. Operations are also monitored with respect to compliance with federal, state, and local regulations and permits. Malcolm Pirnie reviews the facility's environmental testing results and performs audits of annual air emission testing procedures as they are conducted by independent contractors. We also attend monthly coordination meetings with the facility staff and operator to discuss and resolve issues regarding facility operations. Malcolm Pirnie prepares the minutes of the meetings and summarizes the findings of our operations monitoring activities in an annual report to the City.

After a competitive selection process, the City of Tampa recently reselected Malcolm Pirnie to provide continued operations monitoring services.

Malcolm Pirnie was responsible for a broad range of services related to the retrofit of the McKay Bay Refuse-to-Energy Facility, a 1,000-tpd mass-burn waste-to-energy plant. The retrofit represents the first comprehensive "chute-to-stack" retrofit of a waste-to-energy facility constructed in the U.S. The project involved replacement of the furnace system technology as well as the air pollution control equipment to meet emission requirements of the 1990 Clean Air Act Amendments. Other systems at the plant were upgraded or replaced as needed to allow operation over a 20-year period.

Relevant Project Features:

- Size: \$12,062,519 (fee)
- Completion Date: Ongoing
- O & M Inspection
- Service Agreement Compliance
- Annual Report
- Permitting
- Financial Impacts Analysis
- FERC/NERC
- New Project Development
- Vendor Negotiations
- Construction Management
- Financial Impact Analysis

Malcolm Pirnie prepared an initial opinion of probable costs for retrofitting the system for input into a detailed financial analysis. When Malcolm Pirnie's financial analysis showed that a complete retrofit of the existing facility made sense economically, we helped the city move the project forward through an innovative procurement process to obtain a design-build contractor who would design, build, and operate the facility. After completing preliminary design and cost estimates, we managed a prequalification process to shortlist qualified firms, who then contributed to the development of the request for proposals (RFP) and contract documents. The process saved the city over \$20 million in capital costs.

4- Miami-Dade Department of Solid Waste Management (DSWM): Bond Engineering Services/ Miami Florida

As the Bond Engineer for the DSWM since 2007, Malcolm Pirnie, Inc. provides monitoring services for the 3,000 ton per day refuse derived fuel (RDF) Resources Recovery Facility (RRF). The RRF is a key component of the DSWM's integrated Solid Waste Management System through the large scale disposal and recycling of solid waste in an environmentally acceptable manner and provides a major power export revenue stream to the County. The monitoring program includes the RRF's operational efficiency, physical condition, and operation and maintenance practices for conformance with the appropriate Service Agreement, Bond Covenants, and generally accepted industry standards.

As part of these efforts, Malcolm Pirnie conducts the following activities: Facility Monitoring, preparing Monthly Observations and Reports, Biweekly Meeting attendance, Outage Inspections, Stack and RATA testing Monitoring and Annual Facility Inspection. Services included Annual Reporting For Resources Recovery Facility, Montanay-Dade, Inc. and Covanta Energy Corporation Share Purchase Agreement Review and Recommendations, Evaluation of Damage and Repair Oversight to Boiler #4, Assessment of Negative Impact, Waste Services Put or Pay Review, Annual System Reporting, Landfill Closure and Long-Term Care Cost Estimates Reporting, Annual Landfill Capacity Report, Appropriateness of Rates and Charges and Appropriateness of Renewal and Replacement Budget Amount, Use of CLCP Funding for the Taylor Park Site at the City of North Miami Beach, Munisport Landfill Closure Construction Oversight, Homestead Landfill Closure Construction Oversight.

Relevant Project Features:

- Size: \$1,220,000 (fee)
- Completion Date: Ongoing
- O&M Inspection
- Service Agreement Compliance
- Annual Report
- Financial Impacts Analysis
- Permitting
- Financial Impact Analysis

5- Lake County: Solid Waste Engineering Services/ Tavares, Florida

Malcolm Pirnie provides a wide range of services including operations monitoring, permit compliance monitoring, vendor negotiations, litigation support, and general engineering consulting to the Department of Solid Waste Management Services. We are monitoring a 528-tpd resource recovery facility designed, built, owned, and operated by Covanta Energy (formerly Ogden Martin Systems of Lake, Inc.). As Lake County's Consulting Engineer, Malcolm Pirnie provides: Independent assessment of the operational efficiency and maintenance of the facility, as well as compliance with the terms and conditions of the service agreement; Recommendations to improve the operations and maintenance of the facility by performing

Relevant Project Features:

- Size: \$1,516,045 (fee)
- Completion Date: Ongoing
- O & M Inspection
- Service Agreement Compliance
- Annual Reports
- Permitting
- Financial Impacts Analysis
- FERC/NERC
- Vendor Negotiations
- Financial Impact Analysis

on-site inspections, analyzing solid waste deliveries, facility throughput, energy production efficiency, and environmental compliance, and monitoring outage inspections and emissions tests; Financial review and pro-forma updates relative to operations and maintenance and service fees associated with the facility; Design review, negotiations assistance, and construction monitoring of Selective Non-Catalytic Reduction ("SNCR") System implemented to address nitrogen oxides emissions control requirements of Emission Guidelines; General engineering services as required, including evaluation of issues relating to waste composition, permitting, utilities, and electrical production.

Malcolm Pirnie summarizes the findings of these activities in an annual report submitted to the Department of Solid Waste Management of Lake County.

6- Union County Utilities Authority: Resource Recovery Facility/ Rahway, New Jersey

Malcolm Pirnie is currently serving as the Authority's special engineer for the 1,540 ton per day (tpd) Union County Resource Recovery Facility to assure that the Covanta Energy Corporation (formerly Ogden Martin Systems) operates and maintains the facility in accordance with the requirements contained in lease and disposal service agreements between the County and Covanta. Malcolm Pirnie has been annually awarded the provision of operations and/or maintenance monitoring services since the facility began commercial operations in 1994.

As part of on-going maintenance monitoring and general condition assessment, Malcolm Pirnie currently reviews maintenance records for all major equipment and conducts periodic inspections of the facility during non-outage periods. In addition, during scheduled outages of major equipment such as boilers, turbine condensers, air cooled condenser, and ash recovery systems, Malcolm Pirnie conducts inspections of the facility. The observations and findings from these inspections are incorporated into technical memorandums and an annual general condition assessment report.

Malcolm Pirnie also conducted the post-operational environmental assessment to monitor soil, surface water, and sediment, produced in accordance with the revised requirements of the Union County Resource Recovery Facility's PSD Permit. We also prepared the first and second annual waste separation report for compliance with facility permit conditions.

Relevant Project Features:

- Size: \$4,630,000 (fee)
- Completion Date: Ongoing
- O & M Inspection
- Service Agreement Compliance
- Annual Report
- Financial Impacts Analysis
- FERC/NERC
- New Project Development
- Permitting
- Vendor Procurement Negotiations
- Construction Management

7- Lee County: Resource Recovery Project/ Fort Myers, Florida

Malcolm Pirnie was retained by the Lee County Department of Solid Waste as its consulting engineer for the development of a 1,200-tpd solid waste-to-energy recovery facility. Malcolm Pirnie also served as engineer of record and general solid waste consultant overseeing operations, providing annual reports to bonding agencies, and conducting outage inspections and environmental monitoring of the facility and the county's entire solid waste system. The facility provides disposal capacity for Lee and Hendry Counties, Florida.

Relevant Project Features:

- Size: \$5,140,739 (fee)
- Completion Date: 2006
- O & M Inspection
- Service Agreement Compliance
- Annual and Semi Annual Report
- Permitting
- Financial Impacts Analysis
- FERC/NERC
- New Project Development

In the years following facility acceptance, Malcolm Pirnie served as consulting engineer for the County's 1,200 ton per day (tpd) energy recovery facility. Malcolm Pirnie was responsible for overseeing the facility's operations, performing inspections on a routine basis, especially during scheduled maintenance, and assessing the performance of the facility operator with regard to the service agreement. Operations were also monitored with respect to compliance with federal, state, and local regulations and permits. Malcolm Pirnie reviewed the facility's environmental testing results, and performed audits of annual air emissions testing procedures as they are conducted by independent contractors. We also attended monthly coordination meetings with their staff to discuss and resolve issues regarding facility operations. Malcolm Pirnie summarized the findings of its operations monitoring activities in semiannual reports to the county.

Malcolm Pirnie also provided consulting services to Lee County for the 660 tpd expansion of their Energy Recovery Facility, and the Site Certification process. Malcolm Pirnie assisted Lee County with obtaining the permits and approvals necessary under the Power Plant Siting Act, so that the County could expand its Energy Recovery Facility. The permitting effort included a Supplemental Site Certification Application, which contained an Environmental Justice Report, a Human Health and Ecological Risk Assessment, and a PSD Air Permit Application. Malcolm Pirnie addressed criteria such as: potential traffic and noise impacts, floodplain assessments, potential environmental impacts to the flora and fauna, storm water and wastewater capacity, potable water usage, and back-up ground water availability. The three-volume application set was reviewed by more than a dozen state and federal agencies and ultimately required the approval of the Governor and Cabinet sitting as the Power Plant Siting Board.

Malcolm Pirnie also provided vendor negotiations assistance and facility expansion design review services.

- Permitting
- Vendor Negotiations
- Financial Impact Analysis

8- Fairfax County: Solid Waste Consulting Services/ Fairfax County, Virginia

Malcolm Pirnie has provided a broad range of environmental engineering services to the County of Fairfax related to the ongoing maintenance and operation of its I-95 Energy/Resource Recovery Facility (E/RRF), as well as I-66 Landfill and 2,250 ton per day (tpd) Transfer Station and the I-95 Landfill. The I-95 E/RRF, operated by Covanta Energy, has a design capacity of 3,000 tpd and is the County's primary waste disposal facility.

Current contracts with the county, which run through 2016 include:

Malcolm Pirnie provides consulting services to the county under an Independent Engineer Services contract for the I-95 Energy/Resource Recovery Facility. Over a period spanning more than a decade, Malcolm Pirnie has provided a range of services related to the I-95 operation monitoring, permitting and compliance, management reviews and planning.

Under a second contract, Malcolm Pirnie provides general solid waste consulting contracts related to the county's overall solid waste management program, including strategic financial planning, management studies, collections efficiency and routing analyses, and recycling.

Relevant Project Features:

- Size: \$691,556 (fee)
- Completion Date: Ongoing
- O & M Inspection
- Service Agreement Compliance
- Report
- Permitting
- Financial Impact Analysis

9- York County Solid Waste Authority: Solid Waste Engineering Services/ York County, Pennsylvania

In 2004, the Authority initiated efforts to study and plan for future waste disposal capacity needs. Our services on this project began with the study of waste management alternatives consistent with the Authority's guiding principles, including increased recycling/recovery, disposal alternatives, and existing and emerging thermal and chemical/biological treatment technologies. These activities included a tour of European WTE facilities to observe and discuss recent advances in WTE designs, technologies and operations. Ultimately, the decision was made to move forward with implementing additional waste processing capacity at either the current site of the existing 1,344 ton per day (tpd) York County Resource Recovery Center (YCRRC) or an alternate site. With this primary decision, we performed an expansion processing capacity analysis, which determined that a 600-tpd single unit expansion at the YCRRC was the preferred approach.

Over the past two years, we have been providing ongoing consulting services to the Authority which includes: Technical consulting services related to the planning, design and contracting for the expanded processing.

These activities included financial analyses, waste generation projections, and pollution control technology reviews; Preparation of necessary solid waste and air compliance permitting, including a comprehensive solid waste facility permit modification, a pre-construction air plan approval application, air modeling, and a multi-pathway human health and ecological risk assessment. Permitting support throughout the public review and public hearing processes; Coordination of design and operating requirements in service agreement negotiations with the operations vendor (formerly Veolia Environmental Services and currently Covanta) for the construction, acceptance operations of the expanded YCRRC.

Due to reduced waste generation over the past two years, the expansion project has been delayed. Efforts have since changed to focus on the development and completion of a facility life extension study (LES). The LES is comprised of details testing and inspections of the plant, generally by major component. The LES will provide important information on the current condition of the facility, from which life extension projects will be planned and implemented to successfully extend the useful life of the existing units at acceptable operating and performance standards through 2035.

Relevant Project Features:

- Size: \$10,000,000 (fee)
- Completion Date: Ongoing
- Financial Impacts Analysis
- New Project Development
- Permitting
- Vendor Negotiations

10- Solid Waste Department Pinellas County, FL: Independent Engineering Review of Damaged Air Pollution Control System, Pinellas County, FL

Following an extensive failure of a major component of the air pollution control system at the Pinellas County 3,150 ton per day (tpd) Waste-to-Energy Facility in 2005, Malcolm Pirnie was engaged by the County to conduct an independent assessment of the damage associated with the spray dryer absorbers cone hoppers failure and support the subsequent repair design and construction activities.

Relevant Project Features:

- Size: \$45,997 (fee)
- Independent Engineering Assessment
- Completion Date: 2005-06



The Water Division of ARCADIS

Following an extensive failure of a major component of the air pollution control system at the Pinellas County 3,150 ton per day (tpd) Waste-to-Energy Facility in 2005, Malcolm Pirnie was engaged by the County to conduct an independent assessment of the damage associated with the spray dryer absorbers cone hoppers failure and support the subsequent repair design and construction activities. Following an extensive failure of a major component of the air pollution control system at the Pinellas County 3,150 ton per day (tpd) Waste-to-Energy Facility in 2005, Malcolm Pirnie was engaged by the County to conduct an independent assessment of the damage associated with the spray dryer absorbers cone hoppers failure and support the subsequent repair design and construction activities.

Malcolm Pirnie provided an independent evaluation of the facility's air pollution control system failure and a technical review of the cause of the failure and subsequent damage.

- Inspection
- Report
- Construction Management

Additional Information

- A. Ability of the Firm and Its Professional Personnel
- B. Firm's Experience with Projects of a Similar Size and Past Performance
- C. Volume of Work Previously Awarded by the County**
- D. Effect of the Firms Current and Projected Workload
- E. Minority Business Status
- F. Location





Volume of Work Previously Awarded by the County

The following presents a summary of two projects recently completed by the local Malcolm Pirnie team under our existing Pinellas County Utility Engineering Contract.

Replacement of the W.E. Dunn Low Pressure Reclaimed Pump Station

The W.E. Dunn Water Reclamation Facility (WRF) currently provides reclaimed water to the entire North County reclaimed water system. The reclaimed system utilizes a lined reclaimed water storage reservoir designed to provide approximately 64 million gallons of storage capacity, with a usable capacity of 55 million gallons. This project replaced the low-pressure reclaimed water Pump Station (PS), which conveys flow to the Innisbrook Golf Resort (GR). The Innisbrook GR is the largest single user of reclaimed water, receiving from 2.5 to 5.0 mgd by Agreement.

The reclaimed water low pressure PS was 30 years old and utilized obsolete technology, resulting in an inefficient use of power and required frequent intensive maintenance because many replacement parts were no longer available, resulting in reduced capacity. The PS was operated manually, which is not consistent with current remote operation standard technology. Malcolm Pirnie replaced the existing LP reclaimed water PS, performed a complete evaluation of the associated piping system including piping on the Innisbrook GR using radar technology, repaired or replaced the piping as deemed necessary, and converted the manual operations to remote operations consistent with current remote operation standard technology.

Malcolm Pirnie completed the design and performed limited construction services for this project.

Design of Wastewater Pump Stations: No. 312, 342, 353, 392, 394, and 396

Malcolm Pirnie designed the rehabilitation or replacement of PSS 312, 342, 353, 392, 394, and 396 and created a steady state hydraulic model to assist with PS sizing and size verification. The project includes PS assessment, preparing the Conditions and Recommendations Preliminary Design Report, permitting, design, procurement, and construction services.



The Pinellas County Utilities wastewater collection system R&R program includes an assessment and evaluation for identified PSs requiring critical upgrades, rehabilitation, or replacement as part of their asset management program. This project identified, designed, and oversaw the construction of improvements that are required at six existing wastewater PSs in the northern portion of the County in order to extend their useful life for an additional twenty years.

Performance evaluations were conducted for the PS wet well and pumping capacity, force main capacity, and force main velocity. Assessments included the structural condition of the existing wet wells and valve vaults, system reliability including electrical, instrumentation and control (SCADA), and problems associated with odor and corrosion due to possible high concentrations of sulfides in the wastewater. Site constraints for maintenance, access, safety, standby power, public perception, and environmental concerns were also considered.

The County extended the project scope based on the assessment and recommendations of the Preliminary Design Report, to develop a steady state hydraulic model of the main manifold force main system in the North County to assess the impacts of proposed improvements to the manifold system and to address historic flooding issues on one of the large force main branches. The model includes the 30 miles of main trunk force mains and 35 main PSs directly discharging to the WWTP. The hydraulic model will allow the County to troubleshoot and mitigate existing system issues and plan for future projects.



Additional Information

- A. Ability of the Firm and Its Professional Personnel
- B. Firm's Experience with Projects of a Similar Size and Past Performance
- C. Volume of Work Previously Awarded by the County
- D. Effect of the Firms Current and Projected Workload**
- E. Minority Business Status
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Effect of the Firms Current and Projected Workload

ADEQUATE AVAILABLE TIME AND PERSONNEL

Malcolm Pirnie/ARCADIS recognizes that the ultimate measure of a successful project is a fully satisfied client, and that the key to providing this satisfaction is *people*: qualified and experienced staff committed to a project with full support from management. We have always provided the most quality personnel for County projects, and our commitment to Waste to Energy Consulting Services will be no exception. We offer the County an extremely dedicated, highly qualified team led by project manager, Robert French, PE, BCEE and supported by key personnel with more than 300 years combined experience in the waste to energy industry.

Supporting the vast local team, is Malcolm Pirnie/ARCADIS nationwide staff of over 5,000 which includes sufficient depth of resources in specialty disciplines. Our staff routinely handles multiple projects simultaneously as well as large, complex design and construction projects. We offer a vast breadth of collective experience in addressing a myriad of environmental and engineering issues.

Our careful assembly of the proposed project team began with a thorough understanding of the County's particular needs and expectations. We used a formalized workload management system to link project management with staff resumes and skill profiles so that the best qualified individuals were identified and assigned to this particular project, along with well-qualified backup candidates to preclude unexpected staffing shortfalls.

Backup Staffing Capability

Our exceptional strength and span of staff resources enables us to offer consolidated responsibility - all or most project requirements can be performed by our

local and Florida staff with as needed support from our national technical expertise.

The close proximity of our additional Florida resources assures the County that personnel can be mobilized quickly to address any issues that may arise. There are more than 100 professional Malcolm Pirnie/ARCADIS staff throughout the state. Additionally, our Florida offices are supported by the resources and personnel of a national firm that is a recognized leader in the environmental and consulting profession.

While Malcolm Pirnie/ARCADIS maintains more than 55 branch and field offices throughout the United States and worldwide, the firm does not operate on an office or regional cost-center basis. Our projects are our cost centers and, consequently, we assemble project teams that are best suited to meet the needs of our clients- regardless of their location. This policy and approach, combined with technical excellence, has led to countless long-standing client relationships- some for over 50 years.

DAILY ABILITY TO HANDLE THE SCOPE OF SERVICES

Our Tampa office is located just 30 minutes from the County's Facility. This ideal location allows our team to perform the routine scheduled activities associated with this project, as well as expeditiously respond to project needs and any potential unscheduled or emergency situations at the Facility. Our close proximity also facilitates frequent interactions with the County's Solid Waste Operation's staff, which ensures exceptional communication throughout the project.

CURRENT WORKLOAD

Our project team was assembled based on our understanding of the County's requirements and experience working on similar projects. As discussed above, we have conducted an evaluation of workload



The Water Division of ARCADIS

commitments for the team we have identified to successfully provide the services requested, and based on our evaluation, each team member has sufficient capacity to undertake new assignments in their assigned role. As the core services being requested are associated with the operations and maintenance (O&M) monitoring of the Facility, we recognize that the availability of our key O&M expertise will be critical to managing our efforts for the County. As such, we have provided a detailed summary of our O&M team's current workload commitments for the next year which clearly indicates that our O&M team is available to immediately serve the County. We have also included our Project Manager's workload commitments to demonstrate that he has sufficient availability to lead this important project for the County. While we have not presented detailed workload projections, rest assured that the remainder of our experienced, technical team is available to address any unexpected or as-requested additional services the County may wish us to perform and our Project Officer is fully authorized to commit our firm's extensive resources to the County's project in the unlikely event any shortfalls arise.



Core O&M Project Team Current Committed Workload	Team Role	Feb. 2011	March 2011	April 2011	May 2011	June 2011	July 2011	Aug. 2011	Sept. 2011	Oct. 2011	Nov. 2011	Dec. 2011	Jan. 2012
Rob French, PE, BCEE (TAM/FTM/FTL)	Project Manager	60	60	60	40	40	40	40	40	40	40	40	40
Pat Patton (SAR)	Operations & Maintenance	70	70	50	50	50	50	50	50	40	40	40	40
Michael Deloach (SAR)	Operations & Maintenance	80	80	60	60	60	60	60	60	40	40	40	40
Antonio Guillen, PE, PMP (MIA)	Operations & Maintenance	70	70	70	70	70	70	70	70	70	70	70	70
Christopher Tilman, PE (FTM)	Operations & Maintenance	60	60	60	60	60	60	50	50	50	50	50	50
Garth White (FTL)	Operations & Maintenance	80	80	60	60	60	60	60	60	60	60	60	60
T.J. Theriault (FTL)	Operations & Maintenance	80	70	70	70	70	70	70	50	50	50	50	50

Note: Monthly commitment shown as a percentage based on 40-hour work week.

Additional Information

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Minority Business Status

Utilization of Minority and Women Owned Business Enterprises

As part of our affirmative action efforts, Malcolm Pirnie utilizes minority-owned business enterprises (MBE) and women-owned business enterprises (WBE) in the normal course of our business to provide professional services on our projects and as suppliers of goods and services such as printing, office supplies, and other purchases. Malcolm Pirnie has long been an advocate of MBE/WBE project participation. We continue to meet and often exceed all requirements set forth by the USEPA regarding MBE/WBE participation programs, *even in geographic areas with limited numbers of certified firms.*

To supplement our qualifications and strengthen the specialized experience of our project team, we are committed to using the highly qualified and experienced MBE/ WBE sub-consultant listed below:

Earthshine Environmental, Inc. - Minority, Women.

Earthshine Environmental's role for this project is fully defined in Section 6A, Ability of Firm and its Professional Personnel and their qualifications are provided as a supplement to our full Standard 330 Forms.



* Full size certifications are available on request

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Location

LOCATION

Company Affiliation and Office Location

Malcolm Pirnie/ARCADIS has a strong presence in Florida, consisting of nine (9) offices strategically located throughout the state to serve a vast variety of clients with a diverse variety of needs. We currently maintain offices in Tampa, Sarasota, Fort Myers, Orlando, Fort Lauderdale, , Miami, West Palm Beach, Naples, and Tallahassee. These offices have served numerous Florida communities with all aspects of their waste to energy facilities operations and development for more than 20 years. Our Florida offices collectively employ over 100 professional engineers, scientists and consultants, many of whom are specialized staff uniquely qualified and experienced to assist the County with its Waste to Energy Facility contract operations oversight activities, as well as any other services which may be requested by the County associated with the Facility or the County's solid waste management system.



Local Office and Project Management

Our criteria for successfully managing Pinellas County's



Tampa Florida Office

Waste to Energy Consulting Services contract includes the ability to provide the County with a strong local presence, local staff familiar with

the type of project work outlined in the scope of services, and expert resources from around the state and nation who can provide any additional level of specialized service the County may require.

Not only does Malcolm Pirnie/ARCADIS meet these basic criteria, we exceed them. All elements of the performed work will be scheduled and managed out of our regional office in Tampa, less than 40 miles from the County's Waste to Energy Facility. Our Tampa office will be responsible for the day-to-day project management and the on-time delivery of project deliverables to the County, while our other Florida office locations add additional flexibility and ensure rapid responsiveness to the County's needs.

Additionally, our firm offers an experienced project team led by our Principal in Charge Andre Dieffenthaler, PE, BCEE, who resides in Pinellas County, our Project Officer Sam Rosania, REM, who resides in Hillsborough County, our Project Manager Rob French, PE, BCEE, who maintains an office in our regional Tampa location, and our Senior Operations Lead, Pat Patton, who resides in Manatee County, affording us convenient daily access to the Facility, as well as the County's office.

Another benefit to the County is the location of our subconsultant, Earthshine Environmental, who is local to the Tampa - Pinellas region. This close proximity allows for all the components of our project team to cohesively, efficiently and successfully work together, a team which has worked successfully time and time again on similar projects around the state, including, in particular, the City of Tampa's McKay Bay Facility's Retrofit and continued operations monitoring.

In summary, the location of our firm and our project team will benefit the County as it specifically relates to the activities associated with this contract in the following ways:

- Florida presence with unsurpassed waste to energy experience
- Experienced local staff supplemented by highly qualified national technical expertise with unparalleled waste to energy qualifications, many of whom have worked together on similar projects for twenty years or more.
- Local subconsultant, with extensive knowledge of the applicable federal, state, and local permitting requirements for waste to energy facilities such as the County's
- Technical staff familiar with the County's engineering, permitting, and construction requirements
- Principal in Charge who resides in Pinellas County, and has worked on other Pinellas County projects, and who understands the requirements involved with working with the County