# 2023 Landfill Gas System Operations and Maintenance at the Indian River Landfill (Revision One) Indian River County, Florida

Brian Lewis Landfill Operations Manager Republic Services 1327 74<sup>th</sup> Ave SE Vero Beach, FL 32968

# SCS FIELD SERVICES

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Brian Basconi 5850 S. Semoran Blvd. Orlando, FL 32822 401-486-4897

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## INTRODUCTION

SCS Field Services has been providing operation and maintenance (O&M) of the landfill gas collection and control system (GCCS) at the Indian River Landfill on behalf of Republic Services (Republic) since 2013. In 2018, a large area of the landfill known as segments one and two underwent a closure, gas system expansion and the installation of a new air compression station. In August of 2021 the installation of a gas system expansion was completed in segment three cell one which included sixteen new vertical wells and twenty-four new horizontal (side slope) collectors. Additionally, twenty-three new dewatering pumps located in segments two and three were brought online in September 2021. This proposal outlines an updated scope of work that includes services based on the gas system expansions, dewatering pump operation and conversations between SCS-FS, Republic, and Indian River County (County).

## **ROUTINE SCOPE OF SERVICES**

- Task 1 Flare System and Wellfield Operation and Preventative Maintenance
- Task 2 Monthly Reporting
- Task 3 Semi-Annual Liquid Level Monitoring and Reporting
- Task 4 Quarterly Condensate Sump and Dewatering Pump Maintenance
- Task 5 Flare Station Blower Lubrication, Check Valve Inspection and Flow Straightener Inspection;
- Task 6 Air Compressor Preventative Maintenance
- Task 7 Flow Meter Calibration
- Task 8 Landfill Gas Lab Analysis

Each of these tasks are described below.

### TASK 1 – FLARE AND WELLFIELD OPERATION AND MAINTENANCE

SCS-FS will perform routine site visits on a weekly basis to the Indian River Landfill. During each site visit, major components of the GCCS such as flare systems, condensate pumps and LFG header piping will be checked to ensure that the GCCS is operating normally. Monitoring data of the GCCS will be logged in a major components checklist and will be submitted in each monthly report. Any abnormalities observed during scheduled inspections will be reported to Republic immediately. Monthly operation and monitoring (0&M) reports will be prepared to present the data to Republic and summarize any LFG system operating issues that may require additional attention. Routine 0&M of the GCCS is described in further detail in the sections below.

#### Blower/Flare Station & Weekly GHG Readings

The Indian River Landfill currently operates one candlestick flare system that is equipped with three centrifugal blowers. The flare will be operated in auto-mode unless in an emergency circumstance or for the purposes of troubleshooting system issues it requires manual operation. During each routine site visit, SCS-FS will measure (and/or observe) and record at the flare station:

• LFG flow;

- LFG composition (methane, carbon dioxide, oxygen, and balance gas) at the inlet to the knockout pot and flare inlet;
- Main inlet header vacuum and flare inlet pressure;
- Blower/flare control panel status;
- Flame arrestor pressure drop;
- Knockout pot pressure drop;
- Air compressor outlet pressure.

Based on monitoring data at the blower/flare station, adjustments will be made to increase or decrease vacuum at the blower inlet to maintain gas quality and provide consistent vacuum to the gas collection system. Once per quarter during weekly site visits the flow meter will be cleaned and inspected. All flare readings will be taken with a factory calibrated GEM 5000 portable landfill gas meter or an equivalent instrument. During weekly flare readings, the gas meter will be field calibrated with a 50% methane/35% carbon dioxide/11% oxygen mix.

SCS-FS has developed a site-specific preventative maintenance checklist that will be completed by the field technician during each scheduled site visit and at the pre-determined frequency intervals. The preventative maintenance checklist records will be kept on site and included in the monthly O&M reports as applicable. Manufacturer recommended preventative maintenance documents and checklists are included for your reference as *Appendix A*.

#### LFG Extraction System

There are currently 95 vertical wells, 32 horizontal collectors and 4 gas vents located in segments one, two and three. System components will be observed for proper operation during each wellfield monitoring event twice per month. Minor problems such as damaged or deteriorated monitoring ports and flex hoses will be replaced during the check. Major problems will be relayed to Republic immediately. At each extraction point, we will measure (and/or observe) and record:

- LFG flow (where possible);
- LFG composition (methane, carbon dioxide, oxygen, and balance gas);
- Wellhead gas pressure;
- Wellhead gas temperature;
- Dewatering pump cycle counter number as applicable;
- Well piping and well bore seal condition at the landfill surface will be noted;
- Inspect the cover integrity of the landfill and note it in the daily logs.

In conjunction with the extraction well monitoring, adjustments will be made at each well as required to maintain odor control, and system balance/methane composition.

### TASK 2 - REPORTING

SCS-FS will submit an O&M report summarizing routine and non-routine activities, if applicable, that were performed during the preceding month. The O&M report will contain the following monitoring and maintenance records:

- Wellfield monitoring results (two rounds of data per month);
- 6-month rolling wellfield monitoring results;
- Weekly GCCS checklist;
- Flare Station preventative maintenance checklist;
- Rolling 12-month condensate sump pump counter data;
- Recommended GCCS Repairs;
- Quarterly pump maintenance summary;
- Semi-annual liquid level data;
- Quarterly air compressor work logs (provided by sub-contractor).

### TASK 3 - LIQUID LEVEL MONITORING AND REPORTING

SCS-FS will measure liquid levels in each of the vertical extraction wells that are not equipped with dewatering pumps every six-months. SCS-FS will submit the collected data through the eTools mobile app and will be viewable through the eTools database. SCS-FS will also provide a list of wells that may require pumps based on historical field measurement data if needed.

### TASK 4 – QUARTERLY CONDENSATE SUMP AND DEWATERING PUMP MAINTENANCE

SCS-FS will remove each of the 43 pneumatic pumps located in condensate sumps and LFG vertical extraction wells to check operation of the pumps and identify corroded or faulty components that need to be replaced once during each quarter. SCS-FS will provide Republic with a summary of findings along with a recommended parts list based on our findings. SCS-FS will make efforts to coordinate purchasing pumps or replacement parts in advance of each scheduled preventative maintenance cycle so parts can be replaced during routine inspections.

# TASK 5 – FLARE STATION BLOWER LUBRICATION/CHECK VALVE INSPECTION/FLOW STRAIGHTENER INSPECTION

In addition to the manufacturers recommended maintenance, the following items will be performed twice per year:

- Inspection of bearings and housing following alternative greasing plan. Replacement grease will be added as needed;
- Blower Outlet check valve inspection and cleaning;
- Flow Straightener inspection.

### TASK 6 – AIR COMPRESSOR PREVENTATIVE MAINTENANCE

Once per quarter, SCS-FS and a qualified air compressor service company will perform minor and major services on the three air compressors and two air dryers located at the flare station based on manufacturer's recommendations. The services performed in 2023 will be performed by Air Compressor Works. Additional information on air compressor maintenance is referenced in *Appendix B.* 

### TASK 7 – FLOW METER CALIBRATION

The flare station flow meter is factory calibrated once per year per the RS standard operating procedure. To minimize risk of drift outside the 5% tolerance SCS-FS recommends factory calibrating the flow meter every 6 months and performing an "as found" bench test prior to calibration as an alternative to quarterly field accuracy checks. During each calibration, a loaner unit will be installed by SCS-FS. Once the site meter is calibrated, the loaner meter will be removed and the site meter re-installed. Each occurrence will be performed on a flat fee basis. Any additional repairs beyond calibration and the bench test of the site meter will be at an additional cost. The flat fee is based on the calibration of the existing Fluid Components International ST-98 flow meter make and model. If the make or model is changed pricing is subject to change.

### TASK 8 – LANDFILL GAS LAB ANALYSIS

SCS-FS will provide staff and equipment to collect and ship a landfill gas (LFG) sample collected from the flare station blower discharge sample port once per quarter. The LFG sample will be analyzed by Air Technologies Laboratories, Inc. for the following:

- Fixed Gases (Methane, Carbon Dioxide, Oxygen and Nitrogen);
- TO 15 Test including Siloxanes and VOC's;
- H2S Volume.

A lab report will be submitted to the County and Republic Services.

### NON-ROUTINE SERVICES AND MAINTENANCE

Non-routine maintenance and repairs will be performed on an as-needed basis. Prior to performing non-routine services SCS-FS will submit a proposal to Republic for approval. Each proposal will include a scope of work and costs. In the event that a proposal cannot be provided prior to performing work due to circumstances that require an immediate response time, SCS-FS will provide a summary of the work that was performed and costs in a proposal subsequent to the work.

#### **Replacement Parts and Materials**

Replacement parts and materials will be needed in order to maintain components of the flare station, landfill gas extraction wells, piping systems, condensate sump pumps and vertical well dewatering pumps. SCS-FS will provide cost estimates and proposals to Republic prior to the purchase of any parts or materials. For budgetary purposes, an estimated parts and materials budget is included in Table 3.

#### Segment Three Cell One Well Extensions

There are two vertical wells and eight side slope collectors located in the south east portion of segment three cell one that will need to be extended prior to filing activities by operations. Each vertical well consists of a 6-inch schedule 80 PVC well casing, 4-inch HDPE vacuum riser and 2-inch HDPE air and force main riser pipes that will be extended ten feet. Each side slope collector consists of one 6-inch HDPE well riser and one 4-inch HDPE vacuum riser pipe that will be extended ten feet. After each pipe is extended it will be hard capped until after filling activities are completed. Once filling is completed each wellhead will be re-installed.

## ASSUMPTIONS AND CONDITIONS

This scope of services and corresponding fee estimate are based on the following assumptions and conditions:

- 1. SCS is not responsible for trace constituents in the flare stack gas with respect to the potential health and safety hazards associated with flaring of the gas.
- 2. Additional reporting and/or analysis that may be requested by Republic will be performed as a non-routine service and billed on a lump sum or time-and-materials basis.
- 3. Propane or nitrogen for the blower/flare station will be provided by others.
- 4. The scope of services, labor schedule, and compensation for the O&M tasks was developed assuming that field personnel would perform routine services Monday through Saturday during regular working hours (7:00 a.m. to 5:00 p.m.) with unrestricted site access for personnel, equipment, and materials to enable completion of the work.
- 5. Work will be performed in OSHA Level D protection and in accordance with the SWANA Landfill Gas Management Division's, "A Compilation of Landfill Gas Field Practices and Procedures', dated August, 2011. Additional health and safety requirements can be provided with an adjustment in our price.
- 6. All permits (environmental, labor, structural, electrical, etc.) will be provided by others.
- 7. Republic is responsible for notifying SCS of any risks at the site and all environmental, safety and health procedures required by any applicable federal, state and/or local law, regulations, and order.
- 8. Pricing is valid for 60 days following the date of this proposal.
- 9. The pricing provided is valid through December of 2023 or is subject for adjustment if the work scope changes based on increased quantities or frequency of services.
- 10. This proposal and Assumptions and Conditions shall become a part of a mutually satisfactory contract agreement or purchase order.

## FEE ESTIMATE

The following tables show a breakdown of 0&M tasks and costs based on the GCCS expansion and additional services from the original Republic contract. In 2022 there was an addendum issued to reflect an increased 0&M cost of \$34,480 based on the proposal dated December 30, 2021. There will be an increase of \$19,120 for 2023 0&M services from the 2022 proposal amount. Table 1. summarizes the cost increases per task from 2022 to 2023. Table 2 summarizes the total cost per task for 2023. Table 3 provides the recommended parts budgetary breakdown.

Table 1. 2022/2023 Annual O&M Cost Comparison	2022 Cost	2023 Cost	Annual Adjustment
Task 1 – Flare Operation, Wellfield Operation & Weekly GHG Monitoring	\$65,800	\$72,000	\$6,200
Task 2 – Reporting	\$18,000	\$25,920	\$7,920
Task 3 – Liquid Level Monitoring and Reporting	\$5,500	\$5,500	\$0

Table 1. 2022/2023 Annual O&M Cost Comparison	2022 Cost	2023 Cost	Annual Adjustment
Task 4 – Condensate Sump and Dewatering Pump Maintenance	\$36,000	\$36,000	\$0
Task 5 – Flare Station Blower Lubrication/Check Valve Inspection/Flow Straightener Inspection	\$5,000	\$5,000	\$0
Task 6 - Air Compressor Preventative Maintenance	\$10,000	\$15,000	\$5,000
Task 7 – Flow Meter Calibration	\$6,500	\$6,500	\$0
Task 8 – Landfill Gas Lab Analysis	\$6,200	\$6,200	\$0
	\$19,120		

Table 2. 2023 O&M Costs	Quantity	Units	Unit Cost	Total
Task 1 – Flare Operation, Wellfield Operation & Weekly GHG Monitoring	12	Month	\$6,000	\$72,000
Task 2 – Reporting	12	Month	\$2,160	\$25,920
Task 3 – Liquid Level Monitoring and Reporting	2	Semi- Annual	\$2,750	\$5,500
Task 4 – Condensate Sump and Dewatering Pump Maintenance	4	Quarters	\$9,000	\$36,000
Task 5 - Flare Station Blower Lubrication/Check Valve Inspection/Flow Straightener Inspection	2	Semi- Annual	\$2,500	\$5,000
Task 6 - Air Compressor Preventative Maintenance	4	Quarters	\$3,750	\$15,000
Task 7 – Flow Meter Calibration	2	Ea.	\$3,250	\$6,500
Task 8 – Landfill Gas Lab Analysis	4	Quarters	\$1,550	\$6,200
	То	tal Updated 20	)23 0&M Cost:	\$172,120

Table 3. Non-Routine Services and Maintenance	Cost Estimate
Replacement Parts and Materials (Time and Materials)	
Flare Parts and Components	\$10,000
Landfill Gas Extraction Well Parts	\$5,000
Condensate Sump and Vertical Well Pumps and Parts	\$25,000
Segment Three Cell One Well Extensions (Unit Rates)	
Vertical Well Extensions (Two at \$1,290 each)	\$2,580
Side Slope Collector Extensions (Eight at \$760 each)	\$6,080
Total Non-Routine Cost Estimate:	\$48,660

### CLOSING

SCS-FS appreciates the opportunity to provide our proposal to Republic Services. If you have any questions or require any additional information, please contact Brian Basconi at 401-486-4897.

Sincerely,

Brian Bascon

Brian Basconi Project Manager SCS Field Services

BB/GAC

MA Cartee

Garold (Tony) A. Cartee Regional Manager/Vice President SCS Field Services

# **APPENDIX A – MAINTENANCE DOCUMENTS AND CHECKLISTS**

This Form to be replaced by site-specific maintenance checklist. Reference only.

Flare Station Rou	tine	Opera	tion	& Mair	itenan	.ce Sc	hedule	0
Components			F	requenc	y of Ser	vice		
Schedule	Daily	Weekly	Bi- Weekly	Monthly	Bi- Monthly	Semi- annually	Annually	As
Condensate Knock-out pot (see Section V)								
Check liquid level	1							
> Drain KOP			-					1
<ul> <li>Inspect Internal Coating, cover gasket and clean demister pad</li> </ul>							1	
Retighten cover bolts							V	
Pneumatic Header, if applicable (see Section V)			+					
Check Nitrogen supply		1						
Check Supply Pressure (25 nsig)		1	-	· · · ·				
Check valve performance		1						-
<ul> <li>Check supply lines for leakage</li> </ul>					1			
LFG Blower								
(see Section V)								
Inspect Foundation & correct deficiencies							1	
Check Conditions of isolation pads							1	
Check blower motor alignment							1	
Check bearing temperature		V						
Check vibration levels				1				
Re-Inbricate bearings per specification				√				
Inspect drive belts and flex coupling			*		1			
Clean ventilation openings of blower motor								1
Ke-iubricate motor bearings     Check wire connection for corrosion &					V			
tightness			т. Хі				1	
> Drain any Condensate from housing			1		a.			
Piping (see Section V)			-					
Check all valves for proper operation				1				
Retighten all flange holt connections				v				
Check all flance gaskets for leakage	-					1	Y	
Check rubber expansion joints for wear						v al		
<ul> <li>Check piping alignment</li> </ul>						V	Ŷ	
Flow Meter		-					,	200
(See Section V)								
Clean flow meter probe						1		

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36.045

 $\mathbf{x} =$ 

Components	Frequency of Service							
Schedule	Daily	Weekly	Bi- Weekly	Monthly	Bi- Monthly	Semi- annually	Annually	As
Flame Arrester					×			
<ul> <li>Check back pressure &amp; clean bank assembly</li> </ul>		-		1				1
Propane Pilot System (see Section III)							X	
Check propage supply	2							
Check propane supply pressure (5 psig)	1							
Check solenoid manual override								
Clean solenoid valve per specifications						V		
Clean pressure regulator vent						2	¥	
Check all connections for leaks						1	/	
Flare control panel								_
<ul> <li>Clean &amp; maintain instruments per specifications</li> </ul>							1	
Replace recorder chart paper		1						
<ul> <li>Replace recorder pen tip</li> </ul>							1	V
Check enclosure for moisture		1						
Check wire connections for corrosion & tightness						1		
Check panel light bulbs				$\checkmark$				
Check emergency shutdown				V				
Check system permissive							√	
Please refer to the manufacturer's O&M								
Cut chosts are included in d. V.D.C.								

LFG SPECIALTIES A WORLD LEADER IN LANDFILL GAS MANAGEMENT

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#### B. Grease Lubrication

The greatest cause of bearing failure is over greasing rather than under greasing. For this reason, HSI does not recommend use of permanently installed grease fittings as they invite overgreasing.

A special high speed grease is required in grease-lubricated machines. Use of any other type of grease without explicit approval of HSI Service Department will automatically **VOID THE MACHINERY WARRANTY**.

#### **GREASE SPECIFICATIONS**

IGLI GRADE	NO. 2
HICKENER TYPE POLY	YUREA
HICKENER %	8.0
/ISCOSITY CST @ 40° CE	LCIUS
/ISCOSITY INDEX	97
0ROPPING POINT (ASTM D2265)	243°C)
DDITIVES OXIDATION & RUST INHIB	ITORS
'EMPERATURE RANGE	(177°C)
EXTURE	TTERY
OLOR DARK (	GREEN

Prior to shipment, blower/exhauster bearings are adequately lubricated for 1500 hours of operation under normal operating conditions. If three months or more have elapsed since shipment from the factory, remove bearing housing covers and inspect for moisture due to condensation.

To add grease during operation:

i.

- Remove plugs from top and bottom of bearing housing
- (see diagram on page 30)
- ii. Bring blower/exhauster up to a stabilized operating temperature.

iii. Add grease through the top opening in the specified amount (see diagram on page 30)

- iv. Reinsert plug in top opening
- v. After thirty minutes wipe off expelled grease and reinstall bottom plug.

Alternate Greasing Procedures:

Recommended every two years of normal operation or six months of abnormal operating conditions such as high speed operation (V-belt), dirty environment, high pressure and temperature.

- i. With the machine fully stopped, remove bearing cover and plugs.
- ii. Remove all old grease from bearings, housing and cover by flushing with a clean solvent.
- iii. Repack face of bearing by hand and add remainder of specified amount to bottom half of bearing cover.
- iv. Reinstall plugs and bearing cover and start unit.

#### **Table 3: Grease Quantities**

Series	Full Replacement	Periodic Addition
031	1.6 oz. (45g)	1 oz. (28g)
051, 052	3.1 oz. (87g)	2 oz. (56g)
081, 082, 086	5.5 oz. (154g)	3 oz. (84g)

#### X. MAINTENANCE

Some simple maintenance procedures will help prolong the life of your blower:

- 1. Periodically inspect foundation and correct if deficiencies are found. Check for level condition and correct as necessary.
- 2. Check condition of isolation pads and replace as necessary.
- 3. Make sure lubrication maintenance schedule is established and adhered to.
- 4. Periodically check all valves in system. A stuck or broken valve can cause severe damage to equipment.
- 5. Alignment should be checked and corrected twice yearly.
- 6. Check pipe supports and adjust if necessary.
- 7. Keep equipment clean. If machine is oil lubricated, be sure to keep oiler bottle clean so oil, or lack of, can be seen. Keep oil breather cleaned to prevent leaks.
- 8. Follow motor manufacturer's recommendations for motor maintenance.
- 9. Vibration readings and bearing temperature readings should be taken periodically to monitor the condition of the machine bearings which are the most critical component in your machine. If equipment to do this is not available, consult HSI.

#### Indian River Landfill LFG Control Systems Preventative Maintenance Schedules Updated for Device: LFG Specialties Candlestick Flare Unit #1865

Month Completed Weekly Check List							
Operator Name:							
Components	Date:	Date:	Date:	Date:	Date:		
Knock Out Pot:							
Check Liquid Level							
Check Differential Pressure	("wa)	("w.c.)	("w.c.)	('w.c.)	("w.c.)		
Drain Liquid (As Needed)							
Electric Header Valve							
Valve Position							
LFG Blower							
Check Bearing Temperature	(deg, F)	(deg. F)	[digg, F]	(deg. F)	(deg, F)		
Check Vibration							
Rotate Blower(Blower Online)							
Grease Blower During Startup or every 60 days							
Drain Condensate from Housing							
Check Biower discharge Pressure	("w.c.)	("w.c.)	(*w.c.)	("w.c.)	("w.c.)		
Flame Arrester							
Check Differential Pressure	("w.c.)	("w.c.)	(*w.c.)	("w.c.)	("w.c.)		
Clean Element (As Needed)							
Flow Meters							
Record Flare Flow	(sofin)	(scfm)	(scfm)	(scfm)	(scfm)		
Propana Pilot System							
Check Propane Supply							
Check Propane Supply Pressure	(psi)	(ps)	(80)	(osi)	(psi)		
Replace Propane Tank (As Needed)					1		
Control Panel							
Verify Chart Recorder Operation							
Check end osure for moisture							
Test Panel Lights							
Verify Auto-Dialer Operation							
Verily PLC/Touchscreen Operation							
Air Compressor							
Air Compressor Operation							
Air Supply Pressure	(psi)	(psi)	(20)	losi)	(psi)		
Hours							
Drain Tank (As Needed)							
Check Air Dryer Operation							
Creck Oil Level, Top Off As Needed							
Check Emergency Shutdown Switch							

#### SCS FIELD SERVICES

### Indian River Landfill LFG Control Systems Preventative Maintenance Schedules Updated for Device: LFG Specialties Candlestick Flare Unit #1865

Operator Name:		
Components	Date:	Date:
Piping		
Check All Flange Gaskets for Leaks		
Check Rubber Expansion Joints for Wear		
Remove and Clean Flow Straightener		
Blowers		
Remove and Clean Check Valves		
Remove and Repack Grease		
Flow Meters		
Clean Total Flow Meter Probe		
Clean GCS Flow Meter Probe		
Propane Pilot System		
Check Solenoid Manual Overide		
Clean Pressure Regulator Vent		
Check All Connections for Leaks		
Clean Solenoid Valve per Specifications		
Control Panel		
Check Wire Connections for Corrision		
Check Wire Connections for tightness		

Semi-Annual (January/July)

#### Annual (January)

Operator Name:	
Components	Date:
Knock Out Pot	
Inspect Internal Coating, Cover Gasket and Clean Demister Pad	
Retighten Cover Bolts	
LFG Blower	
Inspect Foundation and Correct Deficiencies	
Check Condition of Isolation Pads	
Check Blower Motor Alignment	
Check Wire Connection for Corrosion & Tigtness	
Flame Arrester	
Check Differential Pressure	
Clean Element (As Needed)	
Piping	
Retighten All Flange Bolt Connections	
Inspect Piping for Chipped Paint and Rust	
Check Piping Alignment	
Flow Meter	
Calibrate Flow Meter	
Flare Control Panel	
Clean and Maintain Instruments per Specifications	
Prove Out Alarm Shutdown Permissives	

## APPENDIX B – AIR COMPRESSOR PREVENTATIVE MAINTENANCE QUOTE



Quote #: Date: Expires On: Terms: Written By:

Q-08424-1 12/14/2022 1/14/2023 Net 60 Thai Van

Quotation

1956 West 9th Street Riviera Beach, FL 33404 Phone: (561) 844-4559 www.AirCompressorWorks.com

Air Compressor Works, Inc designated as "ACW" and :

Indian River County Landfill 1325 SW 74th Ave, Vero Beach, Florida 32968

Attention:

Brian Basconi bbasconi@scsengineers.com 4014864897

Designated herein as "Customer" jointly agree to the following:

- "ACW" agrees to perform Preventative Maintenance & Inspection of customer's equipment listed on the following page of this 1. Preventative Maintenance Agreement.
- This Preventative Maintenance Agreement is based on 24 hours per day, 7 days per week, for approximately 8,736 total run 2. hours per year for a Term of 1 year.
- Upon completion of each visit, our service technician will provide a copy of their report to the customer's representative. Under this Agreement, ACW technicians shall perform the following:
- 4.
  - 1 MINOR PM visit(s): change air filter, oil filter, filter mats, plus inspection per section 4e, if applicable. a.
  - b. 1 MAJOR PM visit(s): change air filter, oil filter, filter mats, belts, oil, separator, inline filters, dryer kit, plus inspection per section 4e, if applicable.
  - 2 INSPECTION visit(s): check overall operation of equipment. C.
  - All service intervals per manufacturer's recommended specifications. d.
  - Technicians will monitor compressors operation for control issues, top off compressor oil if necessary, tighten and inspect electrical fittings, e. tighten bolts and control line fittings, clean air / fluid cooler fins, inspect control lines for leaks or wear, tension belt or inspect drive couplings, monitor all gauges and indicators for normal operation, observe for fluid leaks, observe for unusual noise or vibration, measure and record motor amp draw, drain water from receiver tanks, test all drains in compressed air system, clean heat exchanger on dryers and test dryer drains, drainline filter housings if applicable, wipe down exterior of all units to maintain appearance, discuss work performed with customer prior to leaving site.
  - All PM visits, unless otherwise stated are scheduled Monday through Friday, 8:00am to 5:00pm. No additional work to be performed without prior authorization from the Customer. f.

  - To minimize downtime, a towable diesel compressor may be available for scheduled maintenance at current rate. If an existing connection is h. not present, ACW can install one for an additional charge separate from this agreement.
- 5. Customer is responsible for performing the daily, weekly and monthly compressed air service that is recommended by the manufacturer during times which ACW is not scheduled.

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#### **Preventative Maintenance Packages**

Premier: Prepayment of Parts and Labor

One simple, prepaid invoice of \$10,784.10 plus applicable sales tax

- 1 Business day response time on emergency calls. No Emergency Service Fees. Service scheduled for you based on the requirements of your equipment and environment. 2.
- 3. ACW will record, monitor and trend equipment operations and readings.
- 4. Parts will be delivered to customer for onsite inventory.
- 5. Service includes basic parts and labor for annual operation. 6. Additional parts, if needed, will be quoted at time of service.

#### \_\_\_\_ Standard: Pay-As-You-Go

Price estimate: \$11,862.51 plus applicable sales tax

- 1. 3 Business day maximum response on any emergency calls. An Emergency Service Fee of \$250 applies for same day response.
- Service scheduled for you based on the requirements of your equipment and environment. 2.
- 3. Price will be based on actual time and material at prevailing rates.

#### \_\_\_\_ Decline Preventative Maintenance Package

Reason

Prices are valid for until 12/31/2022.

A convenience fee of 3% will be included on credit card charges exceeding \$3000.00 and delinquent payments.

Please allow a minimum of 4 weeks from signature date for first service.

Customer agrees that should it become necessary for ACW to seek the services of an attorney to collect any amounts due hereunder, that Customer is responsible for the payment of all of ACW's reasonable attorneys' fees whether or not it is necessary to file an action to collect the amounts due hereunder. Customer shall be responsible for all of ACW's reasonable attorneys' fees and costs involving any litigation to collect any amounts due to ACW including any appeals, bankruptcies, or other liquidation proceedings.

Air Compressor Works, Inc.

Indian River County Landfill

Name	Name	Brian Basconi
Signature	Signature	7
Data	Date	
Order Acceptance		

Purchase Order #

Check #

**INVOICE TO FOLLOW** 

1956 West 9th Street Riviera Beach, FL 33404 (800) 345-4364 Mechanical Contractors - License #CMC1249580 Page 2 of 3

#### Agreement Summary

Visits per Year: 4 Agreement Term: 1 year

#### Equipment Summary

Kaeser M#ASD-25 SN#1022 Kaeser M#ASD-25 SN#1024 Kaeser M#ASD-25 SN#1021 (2) Kaeser M#TD-26 SN#2624 & 2625 (2) Drains M#AMD6650 Kaeser Inline Filters

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