

2021 Landfill Gas System Operations and Maintenance at the Indian River Landfill (Revision #2) Indian River County, Florida

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SCS FIELD SERVICES

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Table of Contents

Section	Page
Introduction	2
Scope of Services	2
Task 1 – Flare and wellfield operation and maintenance	2
Task 2 - Reporting	3
Task 3 - Liquid Level Monitoring and Reporting.....	4
Task 4 – Semi-annual pump maintenance	4
Task 5 – Quarterly Condensate sump pump maintenance.....	4
Task 6 – Flare Station Blower Lubrication/Check Valve Inspection/Flow Straightener Inspection	4
TASK 7 – Air compressor preventative maintenance	4
TASK 8 – Weekly GHG Flare Readings	5
TASK 9 – Flow Meter Calibration	5
Non-routine services and maintenance	5
Assumptions and Conditions.....	5
Fee Estimate	6
Appendix A – Maintenance documents and checklists	8
Appendix B – Air Compressor preventative Maintenance Quote	16

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. Part of this closure was to expand the GCCS into the upper segments of one and two, which previously did not have any landfill gas (LFG) collection. In addition to the GCCS expansion, several repairs were made to the landfill gas flare station, which include but are not limited to control panel upgrades, centrifugal blower maintenance and repair, moisture separator and flame arrester replacement and the installation of a new air compression station. This proposal outlines an updated scope of work that includes expanded services based on recent site changes and conversations between SCS-FS, Republic and Indian River County (County).

SCOPE OF SERVICES

- Task 1 – Flare System and Wellfield Operation and Preventative Maintenance
- Task 2 – Monthly Reporting
- Task 3 – Semi-Annual Liquid Level and Preventative Pump Maintenance
- Task 4 – Additional Services and Maintenance

Each of these tasks are described below.

TASK 1 – FLARE AND WELLFIELD OPERATION AND MAINTENANCE

SCS-FS will perform routine site visits twice per month 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 (O&M) reports will be prepared to present the data to Republic and summarize any LFG system operating issues that may require additional attention. Routine O&M of the GCCS is described in further detail in the sections below.

Blower/Flare Station

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 arrester 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 flow to maintain gas quality and provide vacuum to the gas collection system.

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

System components will be observed for proper operation. Minor problems such as damaged or deteriorated monitoring ports 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.
- Well head 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;
- Bi-weekly GCCS checklist;
- Flare Station preventative maintenance checklist;
- Rolling 12-month condensate sump pump counter data;
- Recommended GCCS Repairs;
- Semi-annual 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 every six-months. Liquid temperatures will be recorded in wells containing pumps. SCS-FS will submit the collected data in the Republic formatted liquid level table in the monthly O&M report that coincides with each completed round of measurements. SCS-FS will also provide a list of wells that may require pumps based on historical field measurement data.

TASK 4 – SEMI-ANNUAL PUMP MAINTENANCE

SCS-FS will remove each of the 34 pneumatic pumps located in condensate sumps and LFG vertical extraction wells (a 13-pump increase from 2020) to check operation of the pumps and identify corroded or faulty components that need to be replaced every six-months. 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 – QUARTERLY CONDENSATE SUMP PUMP MAINTENANCE

SCS-FS recommends that the pumps located in the five condensate sumps be serviced at a quarterly frequency. Due to the corrosive nature of landfill gas condensate and the important function of the condensate sumps to keep the collection system fully operation, removing the pumps once each quarter will allow for components prone to failure due to corrosion to be identified and replaced before the pump fails.

TASK 6 – 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:

- Removal and 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 7 – 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 first quarter of 2021 is covered under the existing service agreement with Air Compressor Works that was submitted in 2020. This proposal covers maintenance for the second, third and fourth quarter of 2021 to coincide with the calendar year. The services will be performed by Comp-Air Service Co. Additional information on air compressor maintenance is referenced in *Appendix B*.

TASK 8 – WEEKLY GHG FLARE READINGS

Currently SCS-FS performs scheduled flare readings twice per month. Additional weekly flare readings will be performed as needed on weeks that are not scheduled for a flat fee. 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 calibration mix and 4% oxygen.

TASK 9 – 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.

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.

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 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 2021 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 O&M tasks and costs based on the GCCS expansion and additional services from the original Republic contract. In 2020 there was an addendum issued to reflect an increased O&M cost of \$37,640 based on the proposal dated January 21, 2020. There will be an increase of \$16,840 for 2021 O&M services from the 2020 proposal amount. Table 1. summarizes the cost increases per cost from 2020 to 2021. Table 2. summarizes the total cost per task for 2021.

Table 1. 2020/2021 Annual O&M Cost Comparison	2020 Cost	2021 Cost	Annual Adjustment
Task 1 – Flare Operation, Wellfield Operation	\$28,620	\$28,620	\$0
Task 2 – Reporting	\$16,200	\$18,000	\$1,800
Task 3 – Liquid Level Monitoring and Reporting	\$4,400	\$4,400	\$0
Task 4 – Condensate Sump and Dewatering Pump Maintenance (13 additional pumps)	\$7,760	\$12,000	\$4,240
Task 5 – Condensate Pump Maintenance	\$3,000	\$3,000	\$0
Task 6 - Flare Station Blower Lubrication/Check Valve Inspection/Flow Straightener Inspection	\$5,000	\$5,000	\$0
Task 7 - Air Compressor Preventative Maintenance (April through December)	\$11,600	\$7,500	\$-4,100
Task 8 – Weekly GHG Monitoring (new task)	\$11,900	\$23,800	\$11,900
Task 9 – Flow Meter Calibration (new task)	\$3,000	\$6,000	\$3,000
Total 2021 Increase:			\$16,840

Table 2. 2021 O&M Costs	Quantity	Units	Unit Cost	Total
Task 1 – Flare Operation, Wellfield Operation	12	Month	\$2,385	\$28,620
Task 2 – Reporting	12	Month	\$1,500	\$18,000
Task 3 – Liquid Level Monitoring and Reporting	2	Semi-Annual	\$2,200	\$4,400
Task 4 – Condensate Sump and Dewatering Pump Maintenance	2	Semi-Annual	\$6,000	\$12,000
Task 5 – Condensate Pump Maintenance	2	Semi-Annual	\$1,500	\$3,000
Task 6 - Flare Station Blower Lubrication/Check Valve Inspection/Flow Straightener Inspection	2	Semi-Annual	\$2,500	\$5,000
Task 7 - Air Compressor Preventative Maintenance	3	Quarters	\$2,500	\$7,500
Task 8 – Weekly GHG Monitoring	28	Weeks	\$850	\$23,800
Task 9 – Flow Meter Calibration	2	Ea.	\$3,000	\$6,000
Total Updated 2021 O&M Cost:				\$108,320

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 Basconi
Project Manager
SCS Field Services



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

BB/GAC

APPENDIX A – MAINTENANCE DOCUMENTS AND CHECKLISTS

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

LFG SPECIALTIES A WORLD LEADER IN LANDFILL GAS MANAGEMENT

Flare Station Routine Operation & Maintenance Schedule

Components	Frequency of Service							
	Daily	Weekly	Bi-Weekly	Monthly	Bi-Monthly	Semi-annually	Annually	As Needed
Schedule								
Condensate Knock-out pot (see Section V)								
➤ Check liquid level	√							
➤ Drain KOP								√
➤ Inspect Internal Coating, cover gasket and clean demister pad							√	
➤ Retighten cover bolts							√	
Pneumatic Header, if applicable (see Section V)								
➤ Check Nitrogen supply		√						
➤ Check Supply Pressure (25 psig)		√						
➤ Check valve performance		√						
➤ Check supply lines for leakage					√			
LFG Blower (see Section V)								
➤ Inspect Foundation & correct deficiencies							√	
➤ Check Conditions of isolation pads							√	
➤ Check blower motor alignment							√	
➤ Check bearing temperature		√						
➤ Check vibration levels				√				
➤ Re-lubricate bearings per specification				√				
➤ Inspect drive belts and flex coupling					√			
➤ Clean ventilation openings of blower motor								√
➤ Re-lubricate motor bearings					√			
➤ Check wire connection for corrosion & tightness							√	
➤ Drain any Condensate from housing			√					
Piping (see Section V)								
➤ Check all valves for proper operation				√				
➤ Retighten all flange bolt connections							√	
➤ Check all flange gaskets for leakage						√		
➤ Check rubber expansion joints for wear						√		
➤ Check piping alignment							√	
Flow Meter (See Section V)								
➤ Clean flow meter probe						√		
➤ Calibrate flow meter							√	

16406 U.S. Route 224 East Findlay, Ohio 45840 • Phone (419)424-4999 • Fax (419)424-4991

LFG SPECIALTIES

A WORLD LEADER IN LANDFILL GAS MANAGEMENT

Flare Station Routine Operation & Maintenance Schedule

Components	Frequency of Service							
	Daily	Weekly	Bi-Weekly	Monthly	Bi-Monthly	Semi-annually	Annually	As Needed
Flame Arrester (see Section V)								
> Check back pressure & clean bank assembly				√				√
Propane Pilot System (see Section III)								
> Check propane supply	√							
> Check propane supply pressure (5 psig)	√							
> Check solenoid manual override						√		
> Clean solenoid valve per specifications							√	
> Clean pressure regulator vent						√		
> Check all connections for leaks						√		
Flare control panel (see Section VI)								
> Clean & maintain instruments per specifications							√	
> Replace recorder chart paper		√						
> Replace recorder pen tip							√	√
> Check enclosure for moisture		√						
> Check wire connections for corrosion & tightness						√		
> Check panel light bulbs				√				
> Check emergency shutdown				√				
> Check system permissive							√	
❖ Please refer to the manufacturer's O&M during any replacement of parts								
❖ Cut sheets are included in the LFG manual								

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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

NGLI GRADE	NO. 2
THICKENER TYPE	POLYUREA
THICKENER %	8.0
VISCOSITY	CST @ 40° CELCIUS
VISCOSITY INDEX	97
DROPPING POINT (ASTM D2265)	470°F(243°C)
ADDITIVES	OXIDATION & RUST INHIBITORS
TEMPERATURE RANGE	-22°F(-20°C)TO 350°F(177°C)
TEXTURE	SMOOTH, BUTTERY
COLOR	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

Quarter Completed:
 Bi-Weekly Check List

Operator Name								
Components	Date:	Date:	Date:	Date:	Date:	Date:	Date:	Date:
Knock Out Pot:								
Check Liquid Level								
Check Differential Pressure	(“w.c.)	(“w.c.)	(“w.c.)	(“w.c.)	(“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)	(deg. F)	(deg. F)	(deg. F)	(deg. F)	(deg. F)	(deg. F)
Check Vibration								
Rotate Blower(Blower On Line)								
Grease Blower During Startup or every 60 days								
Drain Condensate from Housing								
Check Blower discharge Pressure	(“w.c.)	(“w.c.)	(“w.c.)	(“w.c.)	(“w.c.)	(“w.c.)	(“w.c.)	(“w.c.)
Flame Arrestor								
Check Differential Pressure	(“w.c.)	(“w.c.)	(“w.c.)	(“w.c.)	(“w.c.)	(“w.c.)	(“w.c.)	(“w.c.)
Clean Element: (As Needed)								
Flow Meters								
Record Flare Flow	(scfm)	(scfm)	(scfm)	(scfm)	(scfm)	(scfm)	(scfm)	(scfm)
Propane Pilot System								
Check Propane Supply								
Check Propane Supply Pressure	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)
Replace Propane Tank (As Needed)								
Control Panel								
Verify Chart Recorder Operation	(download data)							
Check enclosure for moisture								
Test Panel Lights								
Verify Auto-Dialer Operation								
Verify P.C./Touchscreen Operation								
Air Compressor								
Air Compressor Operation								
Air Supply Pressure	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)	(psi)
Hours								
Drain Tank (As Needed)								
Check Air Dryer Operation								
Check Oil Level, Top Off As Needed								
Check Emergency Shutdown Switch								

Comments:

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

Semi-Annual (January/July)

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 Override		
Clean Pressure Regulator Vent		
Check All Connections for Leaks		
Clean Solenoid Valve per Specifications		
Control Panel		
Check Wire Connections for Corrosion		
Check Wire Connections for tightness		

Annual (January)

Operator Name:		
Components	Date:	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 & Tightness		
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**

COMP-AIR

Service Co.



Proudly Serving Florida
Since 1957
1-800-229-2667

Indian River Landfill
Attn: Brian Basconi
Quote # 15968
January 8, 2021



ZEKS
COMPRESSED AIR SOLUTIONS™

KOBELCO
Kobelco Compressors(America), Inc.



MIAMI | ORLANDO | TAMPA | FT. MYERS | JACKSONVILLE | VALDOSTA

Comp-Air Service Co. is pleased to have the opportunity to quote you this preventative maintenance agreement.

Preventative Maintenance Agreements are specially designed to ensure our customer's equipment operates at optimal efficiency and availability, which helps to minimize overall costs and promotes worry-free operation. Comp-Air Service Co. will relieve you of the burden of maintenance planning, and we will take over responsibility for servicing your equipment on a regular basis.

You will be notified when services are due, and a mutually acceptable date and time will be arranged. Regular preventative services will significantly reduce the chances of a break down, as potential problems will be recognized before the equipment experiences an unexpected failure, which could cause unwanted downtime.

Comp-Air Service Co. can provide solutions for all your compressed air needs. From generation to point of use, we promise to get the best performance from your whole compressed air system. Parts and lubricants that are specially developed for your compressor needs are kept in stock, and our service technicians are always up to date with our maintenance standards.

Please feel free to contact me directly if you have any questions related to this quote, or if you have questions about any of our other products.

Best regards,

Arsenio Galarza
Service Sales Engineer

2549 Pemberton Dr
Apopka, FL 32703

Cell: 407-637-6645
Email: agalarza@comp-air.com



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Covered Equipment

Model	Serial Number	Type	Oil Type	# of services per year
Kaeser ASD25	1022	Rotary	CAO46	3
Kaeser ASD25	1024	Rotary	CAO46	3
Kaeser ASD25	1021	Rotary	CAO46	3
Kaeser TD61 w/ Filter Package	2624	Air Dryer	n/a	3
Kaeser TD61 w/ Filter Package	2625	Air Dryer	n/a	3

Description of Services

We will perform service visits to the customer's location and will replace filters and lubricants per manufacturer's recommendations. All parts and labor are included in the below pricing. Our Labor includes the following:

- | | |
|---|---|
| REPLACE COMPRESSOR FILTERS & LUBRICANT AT PROPER INTERVALS | INSPECT AND CLEAN AIR/OIL COOLERS |
| INSPECT & TIGHTEN ELECTRICAL CONNECTIONS | INSPECT DRIVE COUPLING FOR BROKEN ELEMENT |
| INSPECT & NOTATE ELECTRICAL READINGS | INSPECT BELTS AND SHEAVES |
| INSPECT FOR OIL LEAKS AND TIGHTEN HOSE CONNECTIONS | INSPECT FOR ABNORMAL NOISES & VIBRATIONS |
| INSPECT & NOTATE TEMPERATURE READINGS | INSPECT & CLEAN OIL SCAVENGE LINES |
| INSPECT LOAD AND UNLOAD PRESSURE SETTINGS | INSPECT OIL LEVEL & TAKE OIL SAMPLE |
| INSPECT RECEIVER TANK DRAINS FOR PROPER OPERATION | TEST RUN UNIT TO ENSURE PROPER OPERATION |
| INSPECT CONTROL AIR LINES AND CHECK VALVES FOR LEAKS | RESET APPLICABLE MAINTENANCE WARNINGS |
| INSPECT GAUGES, VALVES AND OTHER INSTRUMENTATION | WIPE DOWN AND CLEAN COMPRESSOR |
| INSPECT SAFETY RELIEF VALVE ON MACHINE AND RECEIVER TANKS | DISPOSE OF USED OIL AND FILTERS |
| INSPECT AIR DRYERS FOR PROPER OPERATIONS & CLEAN CONDENSER COILS (WHERE APPLICABLE) | |



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Service Agreement Pricing

The following conditions apply to the above:

Total Price for Year – \$6,390.00 (\$2,130.00 per visit)

Total number of visits/yr. – 3

Payment Terms: Net 30 Days W.A.C.

Length of Service Agreement: 1 Year

Quote # Q-15968

(This proposal does not include any applicable sales tax or freight.)

- Unless there is redundancy of compressed air supply at the facility, we will need to shut down the compressor to perform preventative maintenances. Customer must ensure equipment is ready and available to be serviced at the time of service, or additional charges may be incurred.
- Alternative air supply is not covered under this plan, and customer will be responsible for the cost of a rental air compressor should the need arise.
- Breakdowns and repairs caused by negligence on the customer's part, abuse, or operation outside specified parameters may not be considered for warranty.
- Repairs or upgrades beyond the scope of this agreement will be invoiced separately after authorization by the customer.
- Neither party shall be liable for any special, indirect, punitive, or consequential damages, including but not limited to, loss of total or partial use of products, downtime costs, loss of profits, or revenues.
- This agreement may be cancelled by either party with 30 days written notice and may only be cancelled after paying list price for services that have already been performed.
- Comp-Air Service Company reserves the right to not renew this service agreement after the expiration of the term of this agreement.

This quote is valid for **30 Days** from generation.

By signing this agreement, you are authorizing Comp-Air Service Company to invoice as detailed above by using the Purchase Order provided.

All pricing applies to services performed during normal working hours, weekdays, from 7:30am – 4:30pm. Work performed outside of our normal working hours is subject to overtime charges that are 1.5 times our normal rate. Comp-Air Service Co. Terms and Conditions of Sale (T&C CTB-1003B) are an integral part of this agreement.

***2 times normal labor rate applies to services performed on Sundays or Holidays.**

Customer Signature: X _____ Date: / /

Customer PO (if applicable): _____



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TERMS AND CONDITIONS OF SALE
Form CTB – 1003B (04/12/18)

- 1. AGREEMENT:** These terms and conditions shall apply to all offers and purchase agreements for GOODS, PARTS, and/or SERVICES where a Curtis-Toledo, Inc. Company Store, as hereinafter defined, hereinafter each individually known as "SELLER", acts as a provider or seller to the customer, hereinafter "BUYER", whose name is identified on the face of BUYER'S purchase order to SELLER or a purchase agreement, hereinafter "AGREEMENT". A "Curtis-Toledo, Inc. Company Store" shall mean Curtis-Toledo Distribution, Inc., or California Air Compressor Company or FS-Compression Co., LLC, each acting individually and not jointly and severally with the others when utilizing these terms and conditions. "GOODS" shall mean new or refurbished equipment, repairs, rebuilds or rerates. "PARTS" shall mean original equipment manufacturer and aftermarket parts. "SERVICES" shall mean services, including, but not limited to, on-site services, installation, technical or advisory services, shop services or training. Except as otherwise stated herein, no other terms and conditions shall be applicable to this AGREEMENT. All other terms and conditions, including those of BUYER or BUYER'S customer, are hereby expressly rejected. If the GOODS, PARTS or SERVICES require BUYER-supplied information, BUYER shall be solely responsible for the content, accuracy and effect thereof on SELLER supplied GOODS, PARTS or SERVICES.
- 2. PRICE AND TERMS OF PAYMENT:** The price shall be as set forth on SELLER'S invoice. Payment terms are net thirty (30) days from the date of SELLER'S invoice and progress payments will be required for orders valued in excess of US\$75,000.00, unless otherwise stated in SELLER'S quotation or SELLER'S acknowledgment. Installation of GOODS or PARTS is not included in the price and is the sole responsibility of BUYER unless otherwise specified by BUYER and agreed to in writing by SELLER. Delays caused by BUYER or the failure of BUYER'S customer to pay BUYER shall not excuse non-payment. The price does not include any taxes. SELLER may suspend its performance hereunder if BUYER fails to make timely payment(s) of SELLER'S invoice(s). Any costs associated with such suspension(s) shall be for BUYER'S account. Acceptance of payment shall not waive or limit any right of SELLER. Acceptance of specially-endorsed checks of any kind shall not waive or limit any right or remedy of SELLER. In the event BUYER fails to pay an amount when due, (i) BUYER shall be liable for expenses, including reasonable attorney's fees, associated with collections, and (ii) such amount(s) shall be subject to interest at the rate of 1.5% per month for each month or pro-rated portion thereof during which such amount is overdue or the maximum lawful rate allowable under applicable law, whichever is less, until such amount is received by SELLER.
- 3. DELIVERY:** SELLER shall not be held responsible for any loss or damage arising from fire, strikes or labor troubles, governmental intervention, weather, acts of God or nature, raw materials shortages, suspension due to lack of timely payment from BUYER to SELLER or any other act or force beyond the control of SELLER. Any dates that refer to the completion of manufacture and DELIVERY of GOODS or PARTS or completion of SERVICES are SELLER'S best estimate thereof and are subject to change. "DELIVERY" shall mean EX-WORKS point of manufacture (incoterms 2010). Title, risk of loss and responsibility for loss or damage to GOODS or PARTS shall pass to BUYER upon DELIVERY. SELLER shall retain a security interest in the GOODS or PARTS until SELLER receives payment in full. SELLER shall have the right to make partial DELIVERY of GOODS or PARTS and invoice accordingly. All costs associated with any delay caused in whole or in part by BUYER shall be for BUYER'S account.
- 4. WARRANTY:** GOODS: SELLER warrants against defects on all GOODS in accordance with the original equipment manufacturer's written warranty. PARTS: SELLER warrants against defects on all PARTS for a period of ninety (90) days from the date of DELIVERY. SERVICES: SELLER warrants against defects in workmanship on all SERVICES performed by SELLER for a period of ninety (90) days from the date of completion of such SERVICES. SELLER'S obligation to repair or replace any defective GOODS or PARTS or reperform any defective SERVICES during the warranty period shall be BUYER'S sole and exclusive remedy and SELLER'S sole liability arising under this warranty or any warranty claim made by BUYER. In order to be entitled to the foregoing warranties, BUYER must notify SELLER in writing of defects within thirty (30) days of the date of discovery of same during the applicable warranty period. EXCEPT AS MAY BE OTHERWISE EXPRESSLY SET FORTH IN WRITING HEREIN, THIS WARRANTY IS PROVIDED IN LIEU OF, AND SELLER EXPRESSLY EXCLUDES ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO ANY EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY AND/OR ANY EXPRESS OR IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR USE. BUYER shall bear any and all costs of providing free and clear access to the GOODS and PARTS (including removal and replacement of systems and structures), de-installation, re-installation and transportation of GOODS and PARTS to SELLER and back to BUYER. No allowance will be made for repairs or alterations made by others without SELLER'S prior written consent. If repairs or alterations are attempted without SELLER'S prior written consent, this warranty shall be null and void. SELLER assumes no responsibility for damages caused by accident, neglect, damage during transport, improper installation, use, handling, or maintenance, including installation by unauthorized third parties, or by operation in violation of rated operating conditions, internal or otherwise, or normal wear and tear or defects or damages resulting from the use of parts not authorized by the original equipment manufacturer or from BUYER'S failure to store, install, maintain, and/or operate the GOODS or PARTS in accordance with SELLER'S operating manuals, service manuals, instructions, drawings, and good engineering practice. None of the GOODS or PARTS furnished by SELLER shall be deemed defective by reason of chemical or abrasive action, excessive heat or failure to resist the action of excessive heat, erosion or corrosive gases or liquids or the deposition of foreign material from such gases or liquids. SELLER'S receipt of payment in full of all sums due to SELLER shall be a condition precedent to SELLER'S warranty obligations, and the making of any warranty claim by BUYER shall not excuse BUYER'S obligation to make timely payment of all sums due to SELLER. No repair, replacement or reperformance by SELLER shall extend the applicable warranty period.
- 5. CANCELLATION:** This AGREEMENT may be canceled by BUYER only upon the prior written consent of SELLER and upon payment by BUYER and receipt by SELLER of cancellation charges which shall be calculated in accordance with SELLER'S cancellation curve Form CT - 1007.
- 6. RETURNED MATERIALS:** Return of GOODS or PARTS shall require prior written approval of SELLER. GOODS or PARTS built to specifications supplied by BUYER will not be accepted for return. Any costs incurred by SELLER to put the GOODS or PARTS in first class condition, either for resale or reuse, will be paid for by BUYER. GOODS or PARTS accepted for return are subject to a restocking charge of twenty five percent (25%) of the billing invoice, plus all transportation charges. All such returns shall be in accordance with procedures reasonably established by SELLER, and such procedures shall be available upon request.
- 7. PATENTS:** SELLER shall indemnify BUYER against liability and damages for claims based solely on infringement of any United States Letters Patent arising out of SELLER'S manufacture or BUYER'S use of any GOODS or PARTS of SELLER'S manufacture, provided however, BUYER must promptly notify SELLER of any such claim and BUYER shall give SELLER ample opportunity to defend itself against such claim and provide SELLER reasonable cooperation with respect to any such claim. SELLER shall not be obligated for infringement when it results from GOODS or PARTS manufactured by parties other than SELLER and/or parts of special design, construction, or manufacture specified by BUYER, or a particular process or system specified by BUYER, or from the equipment of others which have been specified by BUYER or when an infringement arises from the use of the GOODS or PARTS in combination with equipment outside of SELLER'S scope of supply.
- 8. LIMITATION OF LIABILITY:** Notwithstanding any provision in this AGREEMENT or elsewhere to the contrary: (a) SELLER'S maximum liability arising at any time from any cause whatsoever, whether in contract, tort (including negligence and/or gross negligence), strict liability or otherwise, shall not exceed the contract price of the GOODS, PARTS or SERVICE at issue and, (b) SELLER shall not be liable, in contract, tort (including negligence and/or gross negligence), strict liability or otherwise, for any special, incidental, indirect or consequential loss or damage of any nature, arising at any time, from any cause whatsoever, including lost usage, financing, revenue or profit, and all claims therefore are hereby expressly waived by BUYER.
- 9. LAWS:** SELLER warrants that the GOODS, PARTS and SERVICES furnished hereunder shall meet any such requirements (including any applicable taxes, surcharges or other levies) of any governmental regulatory authority that have been specified by BUYER in writing to SELLER and where SELLER has accepted same in writing. This AGREEMENT shall be governed by the laws of the State of Missouri, without regard to its principles on conflicts of laws. BUYER hereby agrees to subject itself to and consents to the jurisdiction and venue of either the Circuit Court of St. Louis County, Missouri, or the United States District Court for the Eastern District of Missouri, Eastern Division, and BUYER agrees that such venue shall be the exclusive forum regarding disputes arising out of this AGREEMENT. If jurisdiction cannot be obtained in either the Circuit Court of St. Louis County, Missouri, or the United States District Court for the Eastern District of Missouri, Eastern Division, then all controversies, disputes or claims arising out of or relating to this AGREEMENT or the performance, enforcement, breach, termination or validity thereof, including the determination of the scope of the AGREEMENT to arbitrate, shall finally be resolved by arbitration in St. Louis, Missouri, conducted in the English language by three neutral arbitrators, in accordance with the rules of the American Arbitration Association. Any arbitration decision shall be final and non-appealable. The basis for the arbitrators' decision shall be based solely on this AGREEMENT and any documents incorporated thereby. Otherwise, the laws of SELLER'S jurisdiction shall be applied. BUYER agrees to be joined in any arbitration or other legal or dispute resolution proceeding involving any third party and which relates in any manner to this AGREEMENT or the GOODS, PARTS or SERVICES supplied by SELLER pursuant to this AGREEMENT. BUYER and SELLER expressly agree and acknowledge that the United Nations Convention for the International Sale of Goods shall not apply to this AGREEMENT.
- 10. CONFIDENTIAL & PROPRIETARY INFORMATION:** Any information which is designated "Confidential" or "Proprietary" by SELLER and is disclosed by SELLER to BUYER is disclosed in confidence and the BUYER shall not publish or otherwise disclose such information to others without the express written consent of SELLER. SELLER further hereby specifically designates, and BUYER acknowledges, that all information contained in any materials supplied pursuant to this AGREEMENT, including but not limited to, operating manuals, service manuals, instructions, and drawings, is also proprietary despite any lack of markings indicating same. Such information is supplied by SELLER to BUYER for the sole and exclusive use of the BUYER and BUYER shall not furnish, reveal or impart this information to any third party for any reason whatsoever without the express written consent of an authorized representative of the SELLER. Nothing herein shall limit the BUYER'S right to disclose any information provided by the SELLER hereunder which (i) was furnished by the SELLER prior to this AGREEMENT without restrictions, or (ii) legitimately becomes knowledge available within the public domain, or (iii) is received by BUYER from a third party without restriction and without breach of this or any other agreement.
- 11. INDEMNIFICATION:** To the fullest extent not prohibited by law, BUYER indemnifies and agrees to defend and hold harmless SELLER and SELLER'S officers, directors, agents, employees and insurers from and against all claims, damages, liquidated damages, losses, expenses, and claims relating to indemnification and/or liability contractually assumed by SELLER, including but not limited to the fees of attorneys, consultants or experts, arising out of or resulting from, or allegedly arising out of or allegedly resulting from, the purchase or use of the GOODS or PARTS or the performance of the SERVICES, including without limitation all claims, damages, losses or expenses attributable to delays, breach of this AGREEMENT, bodily injury, sickness, disease, death, or injury to or destruction of tangible property, including loss of use resulting therefrom, caused or alleged to be caused by the negligence, gross negligence, acts, errors, omissions, breach of contract, or willful misconduct of BUYER or anyone directly or indirectly employed by BUYER or anyone for whose acts BUYER may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. In claims against any person or entity indemnified hereunder by an employee of BUYER, or anyone directly or indirectly employed by BUYER, or anyone for whose acts BUYER may be liable, the indemnification obligations of BUYER under this AGREEMENT shall not be limited by any limitation on amount or type of damages, compensation or benefits payable by or for BUYER under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.
- 12. UNLAWFUL CONDUCT:** BUYER warrants and covenants that it will not violate any applicable law or regulation of any country or political subdivision thereof, including the U.S. Foreign Corrupt Practices Act, in performing or purporting to perform any act arising out of or in connection with this AGREEMENT. BUYER warrants that it is purchasing GOODS and PARTS for its own use and that there will be no diversion of any shipment or any reshipment to any country, nation or political subdivision contrary to any law of the United States of America. Pursuant thereto, BUYER agrees to maintain such records as are required by such applicable laws and regulations and to provide all written assurances required by SELLER in connection therewith. Further, any such unlawful conduct shall constitute grounds for SELLER to immediately terminate this AGREEMENT for cause.
- 13. ADDITIONAL TERMS:** All price quotations made by SELLER to BUYER shall remain valid for thirty (30) days unless otherwise specified by SELLER in writing. In the event of a conflict between the terms of this AGREEMENT and any incorporated terms, the terms of this AGREEMENT shall prevail. SELLER reserves the right to file a mechanic's or other lien in the case of BUYER'S failure to pay for GOODS, PARTS or SERVICES. Neither this AGREEMENT nor any right, responsibility or obligation of BUYER hereunder may be assigned by BUYER without the prior written consent of an authorized representative of SELLER. SELLER will use reasonable efforts to permit BUYER inspection and crediting. Arrangements for same must be approved in advance by SELLER and arranged by BUYER at least thirty (30) days in advance. All BUYER-incurred costs relating to inspection and/or crediting shall be for BUYER'S account. SELLER reserves the right to source material from anywhere in the world. BUYER warrants that no part of the GOODS or PARTS shall be utilized in any type of nuclear use, plant, and operation or otherwise, unless expressly acknowledged by SELLER in SELLER'S final proposal.
- 14. GENERAL PROVISIONS / ENTIRE AGREEMENT:** Except as otherwise provided herein, these terms and conditions and the face of BUYER'S purchase order to SELLER (and if the Agreement is for SERVICES, SELLER'S applicable Labor Rate Sheet) shall constitute the entire agreement between BUYER and SELLER and can only be modified by a writing signed by duly authorized representatives of both BUYER and SELLER. Should any part of the AGREEMENT be deemed invalid by a court of law that shall not constitute an invalidation of any other part of the AGREEMENT. Section headings are for purposes of guidance only and are not to be considered a part of the AGREEMENT. SELLER'S acceptance of BUYER'S purchase order is expressly made conditional on BUYER'S assent to these terms and conditions and the rejection of any other terms and conditions. Acceptance by BUYER of GOODS, PARTS, or SERVICES shall constitute unequivocal acceptance of these terms and conditions. Past practice, industry standards or practices or previous course of dealing or trade shall not supersede or replace these terms or conditions. Failure of SELLER to effect any available right or remedy shall not operate as a waiver of same. BUYER acknowledges the import of these terms and conditions and understands the contractual obligations create



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January 21, 2021

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

Subject: Proposal to Excavate and Repair Air Compression System Leak - Revision Two
Indian River Landfill, Vero Beach, Florida

Dear Mr. Lewis:

SCS Field Services (SCS-FS) is pleased to provide this proposal to you for the subject work. SCS-FS is prepared to schedule the work immediately upon receipt of approval. The scope of work and budgetary estimate are outlined below.

BACKGROUND

During the month of November 2020, SCS-FS identified and located a section of airline piping located on the north slope that was damaged. The north end of the airline was capped and abandoned in place. An attempt to locate the pipe on the south slope outside the closure area was unsuccessful and the airline has been isolated. After reviewing as builts of the airline and discussions with Republic and the County, SCS-FS recommends locating the airline within the existing closure area on the south slope near well A-1 to cap and abandon (Figure 1.).

SCOPE OF WORK

Task One: Excavation and Air-Line Repair

SCS-FS will provide equipment, materials and labor to expose the airline between well A-1 and the southeast sump. The airline which services the sump and passes through the landfill east of well A-1 will be cut and capped to abandon in place. A new section of airline will be connected to the existing air pipe and routed to the southeast sump to service the condensate pump.

The location of the excavation is on the edge of the closure area where segments two and three meet. A portion of the lining system may need to be removed in order to gain access to the airline pipe. Restoration of the closure area is included in task two.

Task Two: Closure Repair

SCS-FS and Comanco Environmental Corporation (CEC) will provide labor and equipment to repair sections of the closure area that were impacted during the airline repair. Material will be provided by the County.

Task Three: Construction Quality Assurance and Certification Report

SCS Engineers will provide field CQA staff to oversee the repair work performed by CEC. Following the repair SCS Engineers will provide a signed and sealed liner certification report of the repair.



COMPENSATION

The cost to perform the scope of work outlined above is based on the following daily and lump sum rates. For budgetary purposes, SCS-FS has estimated the number of days to complete the work.

Description	Cost	Qty.	Sub-Total
Task One: Excavation and Air-Line Repair			
SCS-FS Daily Labor, Equipment & Mobilization	\$4,000	2	\$8,000
Pipe and Fittings	\$350	1	\$350
Survey	\$275	1	\$275
Task One Total:			\$8,625
Task Two: Closure Repair			
SCS-FS Daily Labor, Equipment & Mobilization	\$2,850	2	\$5,700
Comanco Mobilization/Demobilization	\$2,060	1	\$2,060
Repair Crew Daily Rate	\$5,150	2	\$10,300
Task Two Total:			\$18,060
Task Three: Construction Quality Assurance & Certification Report			
Field Daily CQA	\$1,500	2	\$3,000
Certification Report	\$850	1	\$850
Task Three Total:			\$3,850
Total:			\$30,535

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 Basconi
 Project Manager
 SCS Field Services



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

BB/GAC