# environmental $El^2$ improvements inc.

# Quotation

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June 27, 2014

To: Webb County Water Treatment

Attn: Adrian Montemayor

PROJECT: Chlorination and Ammonia Equipment PM and Replacement.

Environmental Improvements, Inc. is offering to perform Annual Preventative Maintenance on the chlorine system and ammonia system in the Webb County WTP.

This scope of work will include system inspection, individual equipment inspection, and installation of manufacturer's recommended spare parts, testing and calibration of the equipment. This Scope also includes some new equipment to replace missing or damaged components. (See the following for more detail)

## Scope of Work to be performed

#### Two (2) Wallace & Tiernan 60-225 Direct Feed Ammoniators

- Each ammoniator will be evacuated of ammonia, disassembled, inspected.
- Each ammoniator will be pressure tested and purged using nitrogen.
- Each ammoniator will be reassembled with standard factory parts provided in manufacturers PM kit. (Items listed in the attached parts/pm kit scope of supply)
- Each ammoniator will be brought back into service, tested and calibrated per manufacture's specifications.

#### Two (2) New 500 ppd cylinder mounted Vacuum Regulators

- Install two new 510S vacuum regulators and cylinder mounting kits. (Items listed in the attached parts/pm kit scope of supply)
- Each Regulator will be tested and adjusted to the manufacturer's specifications.

#### Three (3) Wallace & Tiernan V10K Chlorinators

- Each chlorinator will be evacuated of chlorine, disassembled, inspected.
- Each chlorinator will be reassembled with standard factory parts provided in Manufacturers PM kit. (Items listed in the attached parts/pm kit scope of supply)
- Each chlorinator will be brought back into service, tested and calibrated per manufacture's specifications
- All items noticeably damaged at the time of evaluation will be replaced to bring the chlorinators back up to factory standards.

#### Three (3) Wallace & Tiernan 1" Injector

- Each injector will be evacuated of chlorine solution, disassembled, and inspected.
- Each injector will be reassembled with factory parts provided in manufacturers PM kit. (items listed in the attached parts/pm kit scope of supply)
- Each Injector will be visually inspected and adjusted to manufacturer's specifications.

#### One (1) Force Flow Ton Container Scales

• Scales will be visually inspected and calibrated.

#### Three (3) New Acutec 35 Gas Detectors

- Detectors will be installed, tested and calibrated.
- Two (2) required for chlorine.
- One (1) required for ammonia.

#### **Chlorine Tubing and Tubing Connections**

 All poly tubing on the chlorine system will be changes along with any fittings in need of replacement.

## **Exceptions and comments**

Environmental Improvements will perform annual preventative maintenance as describe above on only the equipment listed above. The annual preventative maintenance performed will follow all recommendations as describe in the original equipment manufacturers O&M manuals.

During the process of performing the annual preventative maintenance, should the EI2 service tech find any parts/ equipment damaged or unsuitable for normal operations. The service tech will inform the proper facility personal of the issue and discuss proper corrective measures.

Any parts/equipment damaged due to wear or deemed unsuitable and not listed above will be replaced at an additional cost. Cost will include field service time for replacement, testing and calibration if required.

Any additional repairs required for system integrity that falls outside the scope of work described in this proposal will be discussed with the proper facility personal and agree upon in writing prior to any work performed.

# Scope of Supply (PM Kit and Part required)

#### Item Description

1 60-225 Direct feed Ammoniator (2 units)

Two (2) UXA23523 control shafts; Six (6) P50557 lead gaskets; Three (3) P48604 diaphragm hypolon; Three (3) P55352 diaphragm FEP; Two (2) AAA9086 pressure gauge; Three (3) P48672 Gaskets; Two (2) P49572 diaphragm drive cap; Fourteen (14) P26784 O-rings; Four (4) O-rings

2 500 ppd Cylinder Mounted Vacuum Regulator (2 units)
Two (2) 510S vacuum regulator; Two (2) AAB2507 ton container mounting kit

3 Wallace & Tiernan V10K (3 units)

Three (3) AJA4393 PM Kit; Three (3) P37657 V-Notch Orifice; Three (3) AAC6494 Vacuum gauge; Three (3) P97027 ball & screw; Three (3) P97028 disc; Three (3) P97026 clamp nut; Three (3) P16556 washer; RP9024426 vacuum gauge tubing; One (1) U26664 diaphragm unit; Three (3) tee fitting; Three (3) asahi ball valves.

4	Three (3) AJE4406, One (1) P100363 union nut; On	e (1) P31295 ¼ nut.
5	Acutec 35 Gas Detector Three (3) W2T11701 single point base; Two (2 W2T11695 NH3 gas detector; Three (3) W2T11703	•
•	acludes the following PM Kit and parts as listed in the parts/pm kit scope of 2 days Field Service Travel expenses 2 days/nights for hotel, meal & gas etc Travel time from Buda, TX to Rio Bravo, TX Equipment rental.  for Service as described above in this proportion	
	Scott	
By sig		ements, Inc. to provide the services and equipment as
Signa	ture	Date
Print_	·	