



**BOARD OF COUNTY COMMISSIONERS  
ESCAMBIA COUNTY, FLORIDA**

**OFFICE OF PURCHASING**

213 PALAFOX PLACE, 2<sup>nd</sup> Floor  
P.O. BOX 1591  
PENSACOLA, FL 32591-1591  
TELEPHONE (850) 595-4980  
(SUNCOM) 695-4980  
TELEFAX (850) 595-4805  
<http://www.myescambia.com>

To: All Known Prospective Bidders

March 12, 2010

**ADDENDUM NUMBER 2:**

Re: **Blower / Flare Station, Perdido Landfill  
Specification Number: PD 09-10.028**

Bidders:

We recently publicly noticed an Invitation to Bid on the above referenced specification.

**This Addendum #2 provides for the following questions and answers and a Process Flow Diagram:**

Q. In specification 11910, section 1.01.A, it states, "The other branch will connect to the flare located on the skid." Must the blower(s) and flare be mounted on the same structural skid?

A. The blowers and the flare may be located on the same or different skids.

Q. Spec 11910, section 2.01.A.2, it states, "Flare shall be capable of handling a minimum flow rate of 55 scfm." This is for bid item 2 only; please confirm.

A. Minimum flow rate of 55 scfm is for bid item 2 only.

Q. Spec 11910, section 2.01.B, it states the flare shall be designed for 110 mph wind loading; if flare standard is 100 mph, is this acceptable?

A. A clarification will be issued that the stack will be designed to meet the current wind load and other design requirements of the codes in Florida. Bidder shall provide proof of meeting the design code requirement in Florida.

Q. Spec 11910, section 2.01.C, it states, "The electrical connections shall be 480 volts, 60 Hz, and 3 phase." Who will provide the utility power main service disconnect and protection? Will 120 VAC control power be available?

A. The County will coordinate installation of the electrical service and will provide the main service disconnect and protection. The Contractor will be responsible for 120 VAC loads including control power, lighting, and convenience receptacles.

Q. Spec 11910, section 2.04.B: An automatic drip trap on the pressure side of the blower will be at the flare stack drain. It is not recommended that this be an automatic drip trap as debris will eventually

cause this trap to stick open and then blow positive gas pressure to the drip leg to the condensate tank, or other collection point. Is this acceptable?

- A. It is understood that different flare manufacturers may have different systems that they prefer. Alternative configurations may be accepted if provided with drawings and justification based on the review of the County and design engineer.
- Q. Spec 11910, section 2.08.A: Section calls for UV scanners; are thermocouple acceptable as an alternative? Section also calls for an "automatic dialer"; it is assumed that the phone line will be provided by the County or others. Please confirm.
- A. UV scanner was requested in addition to the thermocouple. If the flare manufacturer has an alternative design to provide the required redundancy, justification should be provided for the review of the County and design engineer. It is understood that different flare manufacturers may have different systems.

The phone line will be provided by the County. The bidder is requested to provide pricing for an auto dialer based on cellular phone technology as well. The County will pay and obtain the cellular service.

- Q. Spec 11910, section 2.09.B, it states, "... blower turns on (if not already operating to supply gas to the generating plant)..." Is the blower to be capable of operating without the flare? Please describe this operation and what instrumentation and safeties are to function with the blower operating in this mode.
- A. Blower will need to operate even if the flare is not operating. Blower will be the source to supply gas to the generating plant. If the flare and both the engines at the generation plant are down, the blower will need to stop operating. The process diagram (included in this addendum) and the technical specifications explain the automatic control system that is required for routing the gas to the flare and the generating plant. The bidder shall provide a blower-flare package with control systems to meet the performance requirements while operating safely.
- Q. Spec 11910 section 2.09.G, it states a shutdown will include "the automatic shutoff valve is closed, the blower(s) is shut down (if generation plant is not operating),..." How will the flare/blower system know if the gas plant is operating?
- A. Based on the pressure sensor provided at location P3 on the gas pipeline from the blowers to the generation plant.
- Q. Spec 11910, section 2.10.C: What if the demand of gas from the gas plant results in a higher vacuum than the operator entered setpoint? How should the control system react or operate?
- A. The applied vacuum to the well field shall be maintained constant regardless of the fluctuating demands from the generation plant. The set point should be manually adjusted by the operator if needed.
- Q. Spec 11910, section 2.11.D, it states the blower motors shall be "...totally enclosed, fan-cooled (TEFC), and explosion proof." A motor rating of TEFC and explosion proof are not the same thing. We assume the motor must meet NEC (National Electrical Code) requirements for a NEC Class 1, Division 2 hazardous area classification. Please confirm.
- A. The motors shall be listed for NEC Class 1, Division 2. The motor style shall be TEFC and the winding shall be rated for VFD use.

- Q. Spec 11910, section 2.11.E: This section is a description of a Full Voltage Non-Reversing (FVNR) motor starter, not a VFD. Is there a specification or description for the required VFD(s)?
- A. The VFD provided shall be appropriate for the described blower package and the performance requirements. If there are more than one available option from a manufacturer, bidders shall provide details and pricing for more than one VFD package. Motor shall be rated for VFD service regardless of motor starter or VFD option.
- Q. Spec 11910, section 2.11.G: Most blowers of this size are not supplied with bearing temperature monitoring; is this required?
- A. Bearing temperature monitoring is required unless certification from the blower manufacturer is provided that such monitoring is not required for this project.
- Q. Spec 11910, sections 2.12 & 2.13 it states the expansion joints and blower inlet butterfly valves "...shall be supplied by the blower manufacturer"; Is this absolutely necessary or can they be supplied from a separate source?
- A. It is preferred that these components are supplied by the manufacturer. If alternate suppliers are used documentation should be provided to demonstrate the equipment meets the blower manufacturer inlet size and clearance requirements.
- Q. Spec 11910, section 2.13.C, it references "on the Drawings". What "drawings" are being referred to, and were they included with the bid package?
- A. The phrase "on the Drawings" should be deleted from the specifications.
- Q. Spec 11910, section 2.15.A, it references signage for a "Moisture Trap". What is this device?
- A. The "moisture trap" should have been referred to as the "knockout pot".
- Q. Spec 11910, section 2.15.B, it references signage "... on four sides of the fenced enclosure." Is fencing included in this bid?
- A. Fence is not included in the bid. Fencing will be provided by the General Contractor performing the blower – flare installation work.
- Q. Spec 11910, section 2.17.C: It is believed that the Fluid Components flow meter described cannot meet an accuracy of +/- 1%.
- A. An accuracy of +/-1% is preferred, but +/-5% is acceptable.
- Q. Spec 11910, section 2.18.A: Please define what is meant by "electronic gages", and what gas constituents must be recorded to comply with the "gas quality" requirement?
- A. The referenced section also states: "Flare temperature and gas flow rate are required by regulations to be recorded. Other gages that should be recorded are vacuum (inlet side of blower), pressure (out let side of blower), landfill gas temperature, and gas quality etc. The recorder shall have at least six channels."

Section 2.17F states "provide price for a continuous gas analyzer capable of recording gas quality in terms of methane, carbon dioxide, oxygen, and balance gas". The term "gas quality" in Section 2.18 follows the definition provided in Section 2.17F.

- Q. Spec 11910, section 2.19.A states, "The skid shall be constructed to withstand all loads and hauling forces." Please describe the intent and meaning of this requirement?
- A. The skid shall be able to withstand the loads of the equipment installed on it and the hauling and handling forces associated with transport and installation.
- Q. Spec 11910, section 2.19.B: Grounding and lightning protection is usually provided by the installation Contractor for the area. Is the flare/blower provider required to install grounding rods or a ground grid for this equipment? Is so, please provide the local soil conditions at the installation site so ground rods can be sized properly.
- A. Grounding and lightning protection is to be provided by the installation contractor, not the blower/flare station provider. The local subgrade generally consists of sands, silty sands, and clayey sand materials.
- Q. Spec 11910, section 3.01: Who is providing installation of the flare and blower(s)? No additional "Drawings and Specifications" other than specification 11910 was received.
- A. Installation will be part of the GCCS expansion project and not part of this project. **A process flow diagram is included with this addendum.**

Please sign (your original signature) and return one copy of this Addendum with your Bid Submittal as an acknowledgment of your having received.

Sincerely,



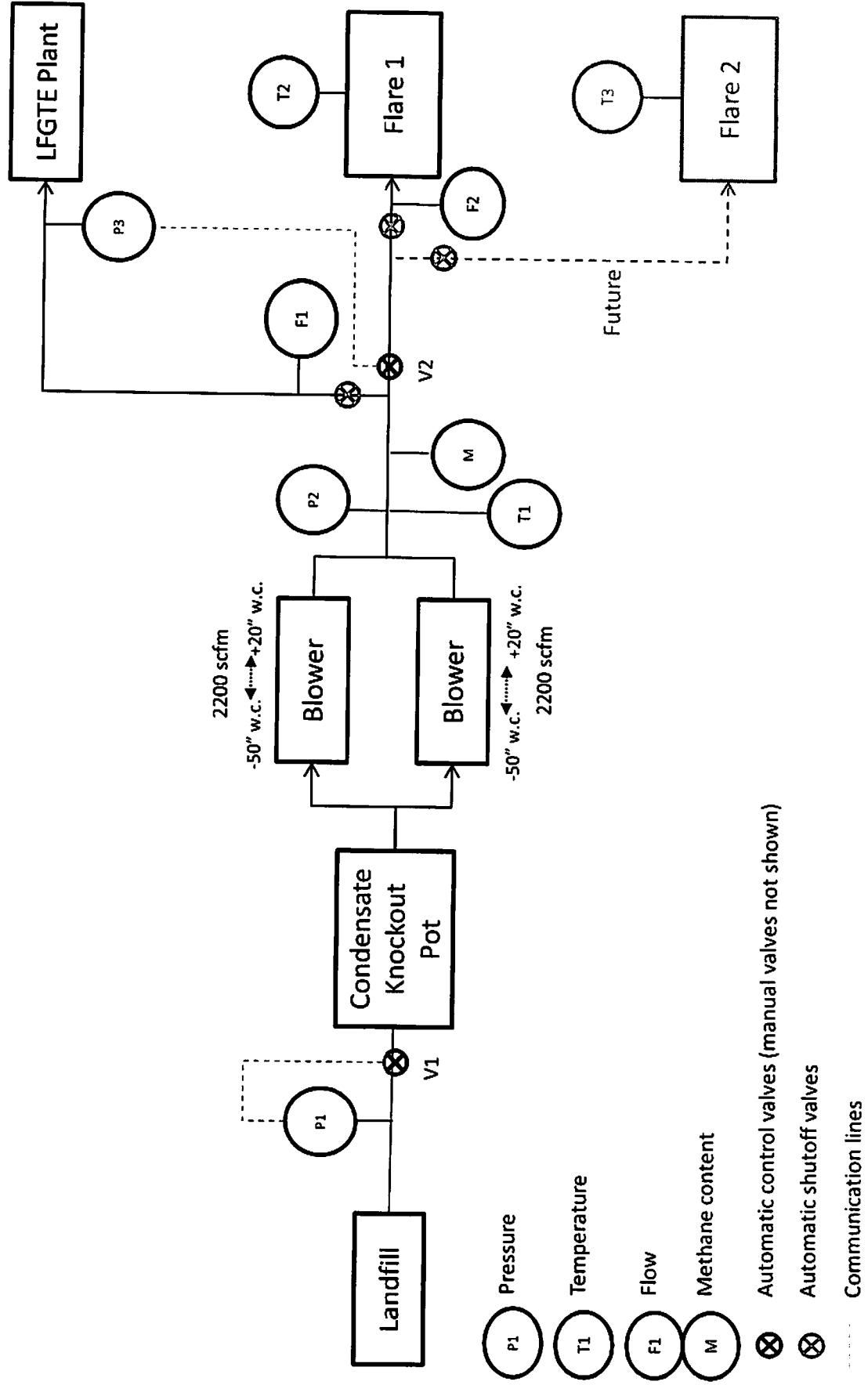
Claudia Simmons, CPPO  
Purchasing Manager

SIGNED: \_\_\_\_\_

COMPANY: \_\_\_\_\_

CS/lk

Proposed Process Flow Diagram and Minimum Requirements for Instrumentation and Control  
 (actual details may vary based on manufacturer specifics while meeting the overall performance requirements of the specifications)



- P1 Pressure
- T1 Temperature
- F1 Flow
- M Methane content
- ⊗ Automatic control valves (manual valves not shown)
- ⊗ Automatic shutoff valves
- Communication lines