

# Fax Message

Date:	11/2/2005			
To:	MIKE HalpIN	Facsimile No.:	850-921-95	33
		Phone No.:	850-921-95	79
Company:	DEP	No. of Pages:	16	
			(including this one)	
City/State:	Tallahassee /FZ	· 	•	
From:	Nicholas LARYEA	Phone No.:	(772) 597-6500 ×	19
Special Inst	ructions:			
If transmitta	l is incomplete or illegible, please call	at (772) 597-6500	) x10.	

Message:

Milce, per com discussion please see the attacked

Mick

### CONFIDENTIALITY NOTICE

The information contained in this telefacsimile message is privileged and confidential, and intended only for the use of the individual(s) and/or entity(ies) named above. If you are not the intended recipient, you are hereby notified that any unauthorized disclosure, copying, distribution or taking of any action in reliance on the contents of the telecopy materials is strictly prohibited and review by any individual other than the intended recipient shall not constitute waiver of the attorney/client privilege. If you have received this transmission in error, please immediately notify us by telephone (collect) to arrange for the return of the materials. Thank you.



### **SECTION 3.0**

### "O" TYPE BOILER SPECIFICATIONS

### **GENERAL INFORMATION**

Victory Energy Operations, LLC proposes to furnish a custom steam generating systems to be utilized by Indiantown Cogeneration at the Indiantown Cogeneration site located in Indiantown, Florida. The boilers will be designed with the following characteristics:

➤ Quantity: Two (2) Boilers

Capacity 136,000 lbs/hr Saturated Steam

Design Pressure: 350 PSIG
 Operating Pressure: 250 PSIG

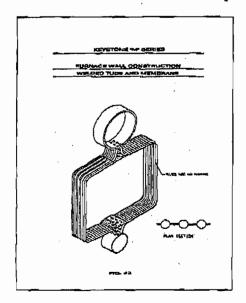
Operating Temperature: 406 °F at the NRV outlet

Feedwater Temperature: 240 °F
 Primary Fuel: Natural Gas
 Boiler Location: Outdoors

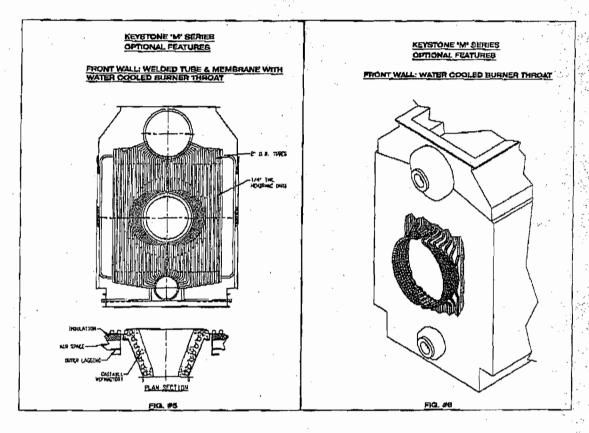
The "O" style boiler design offers the least amount of furnace refractory compared to other designs. The tube and membrane seal welded front and rear walls virtually eliminates all refractory in the furnace, other than localized seals and refractory coverage of the water cooled burner throats. This design greatly reduces maintenance costs and offers increased unit availability. The furnace sidewalls are tube and membrane construction for the entire length of the furnace to eliminate the possibility of gas bypassing. The outer sidewalls are also tube and membrane design for gas tight construction. This design offers 100% water cooling and the ability to provide an extremely fast ramp rate.

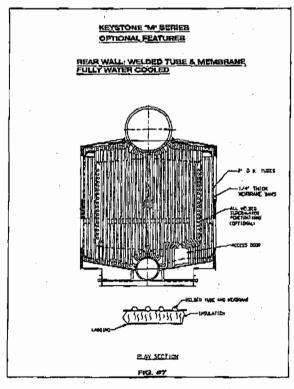
The furnace wall tubes of any boiler encounter the highest heat flux. The "O" type design, has the shortest furnace wall tubes in the industry. This advantage removes heat from the furnace quickly and extends boiler life.

The "O" design has a single lower drum which reduces maintenance compared to other designs that may have two lower drums or headers. The single large diameter drum makes it easier to perform inspections and to maintain lower tube connections. The steam drum will contain steam separation equipment.



Proposal No.: VE-2127r.6





Proposal No.: VE-2127r.6

### 3.2 Heating Surfaces, Design Pressure and Size

۵	Furnace Radiant Heating Surface	1,196 Sq. Ft.
•	Convection Heating Surface	7,659 Sq. Ft.
9	Total Heating Surface	8,855 Sq. Ft.
9	Furnace Volume	2,029 Cu. Ft
•	Overall Width	12'-2"
•	Overall Height	15'-5"
٠	Weld Line Length	35'-0"
٠	Design Pressure	350 psi
•	Operating Pressure:	250 psi
٠	Saturation Temperature:	406° F

### 3.3 Drums

Submerged are automatic welded and stress relieved with radiographed welded seams

- Drum material shall be SA-516 Gr. 70 or equal
- Tubes are rolled and expanded into the drum
- . Drums are provided with a 12" x 16" manway access in each drum head

### 3.3.1 Upper (Steam) Drum

- Inside Diameter is 48 inches
- All connections to be flanged.
- External connections consist of the main steam outlet, water column, auxiliary low water cut-off, steam
  gauge, vent, safety valves, feedwater, and continuous blowdown.
- The upper drum includes a feedwater distribution pipe and a blowdown collection pipe.

### 3.3.2 Lower (Mud) Drum

- Inside diameter is 24 inches
- All connections to be flanged.
- External connections consist of chemical feed and intermittent blowdown.
- The intermittent blowdown connection is at the lowest point for draining of the unit
- · The lower drum includes a chemical distribution pipe

### 3.4 Tubes

- 1. All tubes enter the drum radially with full parallel bearing through the drum plate
- 2. All tubes are full diameter tubes with no swaging

•	Front Wall:		 2" O.D., 0.150" M.W., SA-178 Grade A
•	Rear Wall:		2" O.D., 0.150" M.W., SA-178 Grade A
9	Furnace Floor, Sides & Roof:		2" O.D., 0.150" M.W., \$A-178 Grade A
	Convection:	•	 2" O.D., 0.120" M.W., \$A-178 Grade A
•	Outer Side Wall:		2" O.D., 0.150" M.W., SA-178 Grade A



#### 3.5 **Boiler Wall Construction**

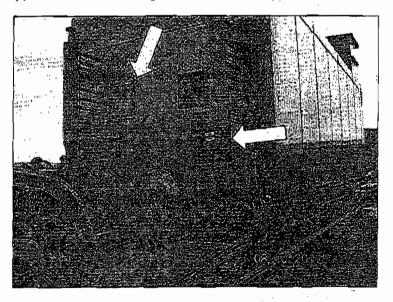
### **Boiler Wall Construction**

The outer lagging of the boiler will have an average surface temperature of 140 Deg. F ambient with 2 MPH wind velocity. The boiler walls include the following:

- > The furnace sides, roof and floor consists of a tube and membrane design. The wall is constructed with 2" O.D. tubes with 1" wide by 1/4" thick steel membranes welded to each tube.
- > The front wall consists of a tube and membrane design. The first layer is 2" O.D. tubes with 2" exposed width by "thick carbon steel membranes welded to the tubes. The second layer is 3" of 1200 Deg. F. board insulation. The outer surface is 24 gauge Carbon Steel lagging properly stiffened.
- The rear wall consists of a tube and membrane design. The first layer is 2" O.D. tubes with 2" exposed width by 4" thick carbon steel membranes welded to the tubes. The second layer is 3" of 1200 Deg. F. board insulation. The outer surface is 24 gauge carbon steel lagging properly stiffened.
- The outer boiler side wall will be a tube and membrane design. The first layer is 2" O.D. tubes with 1" wide by 4" thick carbon steel membrane welded to the tubes. The second layer is 3" of 1200 Deg. F. board insulation. The outer surface is 24 gauge corrugated galvanized steel lagging properly stiffened.
- The drum will be insulated with 2" of 1200 Deg. F. blanket insulation. The outer lagging shall be 24 gauge carbon stecl.

#### 3.6 **Boiler Access**

The boiler will be provided with platforms to access the top of the boiler, drum, burner, non-return valve, safety valves and trim items. The boiler furnace is accessible through one (1) 12" x 16" rear wall access door. The rear wall also includes two (2) 3" diameter observation ports.





#### 3.7 Steam Purification

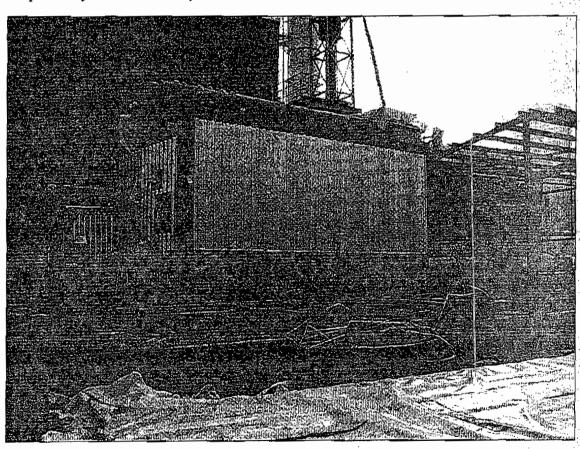
The upper (steam) drum includes steam purifiers, vortexes and chevrons. These steam purifiers also include a dry pan and a baffle. This steam purification system is designed to produce 0.1% moisture carry over based on ABMA maximum boiler water concentration standards.

#### 3.8 Structural Base

The boiler includes a rigid structural steel base frame designed to distribute the loads onto a flat concrete foundation. The boiler is designed to be anchored at the front (anchor bolts are required and supplied by others) with thermal expansion towards the rear. Two (2) 12" x 16" structural base access doors are included (one on each side).

#### 3.10 Piping, Trim and Accessories

- Water level piping to water column and auxiliary water cutout
- Drain piping for water column water gauge glass, auxiliary cutout, and pressure gauge drain to approximately one (1) feet above boiler base.
- Steam pressure piping to pressure gauge
- Air piping from the air duct to the observation port
- Intermittent blowdown piping between the VEO isolation valve to buyers common existing blowdown tank shall be provided by VEO and installed by others.





### 3.11 Preparation and Painting Standards

Composents	
Drum Openings	
Flanged	Coat w/ Rust Inhibitor
Screwed	Capped
Welded	Weldable Rust Inhibitor
Drum	No Paint
Drum Heads (Un- insulated)	SSPC-SP-3 w/ 3-5 Mils High Temp.
Base Frame	Surface Preparation-SP3
	Primer - 3 Mils Inorganic Zinc
the series of the part of the series of the	Finish - 3-5 Mils Hi Build Epoxy
Exposed Casing	Surface Preparation-SP3
the state of the s	Primer – 3 Mils Inorganic Zinc
	Finish – 3-5 Mils Hi Build Epoxy Surface Preparation-SP3
Flue Gas Outlet	Primer – 3 Mils Inorganic Zinc
In the fill the same of the sa	Finish - 3-5 Mils Hi Build Epoxy
Windbox/Burner	By vendor
Lagging	
Part and the property of the same and property of the same and the sam	Corrugated Galvanized Steel
The state of the s	Flat Carbon Steel
Message Basis have been also been a second of the second o	Surface Preparation-SP3
History was a superstant the superstant to the superstant of the s	Primer - 3 Mils Inorganic Zinc
the state of the s	Finish -3-5 Mils Hi Build Epoxy
Dun de la companya de	Flat Carbon Steel
Fraging the second section of the section of the second section of the section of the second section of the section of	Surface Preparation-SP3
the day of the control forms of the control of the	Primer – 3 Mils Inorganic Zinc
Head Covers	Finish -3-5 Mils Hi Build Epoxy None
-Trim Pipme - (Water	SSPC-SP-3 w/ 2 Mils High Temp.
column drain proing, etc.)	ODE C-OL-3 MI T MIRS INER IONID.
Comment chant-hilling co.	

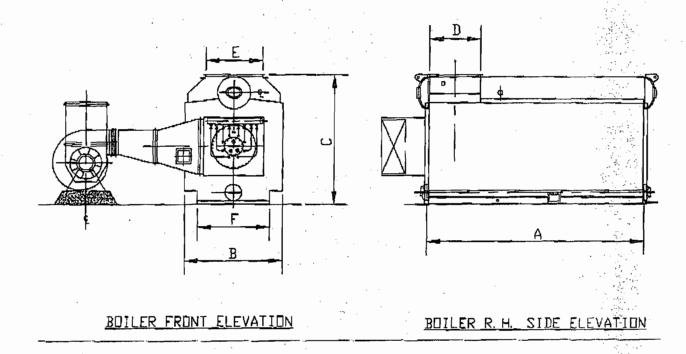


### 3.12 Trim Specification (list is typical of "1" unit with "2" units required)

BOHER	QUANTIFY	SZE	MANUEACTURER
Water Column	1	1 1/4"	Clark-Reliance
Auxiliary Low Water Gutoff	1		Clark-Reliance
Water Column Drain Valve	1	3/4"	Vogt
Auxiliary Low Water Drain Valve	1	3/4"	Vogt
Water Column Gauge Drain Valve	2	3/8"	Vogt
Steam Gauge	1	8 1/2"	Ashcroft
Steam Gauge Siphon	l	1/2"	Ashcroft
Steam Drum Vent Valve	1	1"	Vogt
Drum Blowoff Valve Chemical Feed Valve	2	2"	Edwards
Chemical Feed Valve	1	1"	Velan
Chemical Feed Check Valve	1	1"	Velan
Nitrogen Blanket Valves	2	3/4"	Vogt
Chemical Cleaning Valves (lower drum)	2	1"	Vogt
Continuous Blowdown Shutoff Valve	1	1"	Vogt
DLT Shufoff	2	.1"	Vogt
Continuous Blowdown Flow Control	1 -	1"	Vogt
Boiler Safety Valve #1	l .	TBD	Consolidated
Boiler Safety Valve #2	1	TBD	Consolidated
Main Steam Valve	1	10"	Edwards
Main Steam Gate Valve (motorized)	1	10"	Newco
Main Steam ASME code spool	1	10"	VEO
Warm-up coil stop valves	3	1"	Vogt
Warm-up coil globe valves	2	1"	Vogt
Steam pressure control valve Warm up coil check valve	_1	Ĭ, ss	Jamesbury
Warm-rp coil check valve	1	1"	Vogt
Warm-up coil drain valve	l	3/4"	Vogt
Warm-up coil pressure gauge	11	]	Ashcroft
Warm-up coil temperature gauge	I		Ashcroft
Feedwater Control Valve	I	3"	Jamesbury
Feedwater Control By-pass Valve	1	4"	Newco
Feedwater Control Isolation Valve	2	4"	Newco
Eccdwater Piping	Ι	4"	VEO
Boiler Feedwater Check Valve	1	4"	Newco
Boiler Feedwater Gate Valve	1	4"	Newco

Proposal No.: VE-2127r.6

# VICTORY ENERGY "O" SERIES STANDARD MODELS



NOTE: FD Fan is top mounted on the windbox and is NOT side mounted as shown.

MODEE	FO Frame
A Base Length	35'-0"
B Overall Width	12'-2"
C Overall Height	15'-5"
D Gas Outlet Length	7'-6"
E Gas Outlet Width	9'-6"
Shipping Weight (lbs)	142,000 (T.B.A)

Shipping weight to be confirmed during the issuance of the final certified drawings.

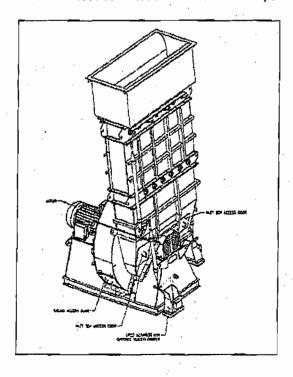
7725976210

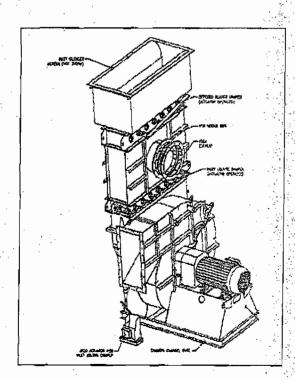
Proposal No.: VE-2127r.6

#### Forced Draft Fan 3.14

Two (2) Alphair, or equal, Centrifugal Fans, top winbox mounted, complete with:

- SWSI confirguration
- Inlet Screen
- Inlet and Outlet flanges
- FGR mixing box and control damper complete with actuators
- Casing and inlet box access doors
- Casing and inlet box drains
- Falk coupling
- Rain Hood
- Inlet louver damper
- Carboline 890 T135 VEO Blue finish over phosphate wash preparation
- Balance to ISO 1940-G 2.5
- Bearing RTD's
- 250 HP 1800 RPM 3/60/480V WEG Motor, TEFC







### 3.15 Predicted Boiler Performance (with out an economizer)

7/25/05

PROPOSAL NO. 2127 BOILER DESCRIPTION: 23M Keystone

### PREDICTED OPERATING PERFORMANCE DATA

	•		
Fuel(s) Fired Per Load		. Propane	DИ
Boilar Load		100.0	10.0
Steam Outputlbs/hr	136000.	136000.	13600.
Water Sida	٠.		
Pressure at Boiler OutletPSIG	250,	250.	250.
Sat, Temp. at Boiler Outlet.Deg.F	406.	406.	406.
Percent Blowdown	3.00	3.00	3.00
Blow Downlbs/hr	4206.	4205.	421.
Feedwater Flowlbs/hr	140208.	140205.	74021.
Fandwater Tomp System Inlet.Deg.F	240.	240.	240.
Firing Conditions			
Excess Air-NG	15.00		35.00
Excess Air-Propans%	•	15.00	
02 in Flue Gas Lvg. (dry vol)%		2.04	5.83
Flue Gas Recirculation	20.00	20.00	20.00
Air/Flue Gas Side			
Ambient Air TemperatureDeg,F	100.	100.	100.
Relative Humidity	80.00	80.00	80.00
Temperature of FGRDag,F	551 .	<b>844.</b>	407.
Gas Temp. Leaving FurnaceDeg.F	2226.	2249,	1191.
Gas Temp. Leaving BoilerDeg.F	551.	544.	407.
Flue Gas Flow Lvg. Systemlbs/hr	158499.	184907.	18872.
Flue Gas Recirculated Flow.lbs/hr	31700.	30997.	3774.
Combustion Air Requiredlbs/hr	150479.	147127,	18053.
Furnace LiberationBTU/cu.ft-hr	84832.	82383.	8649.
Purmace Release Rate. BTU/sq.ft-hr	135175.	134000.	13447.
Oraft Losees Through			
Fan Inlot ductsinches H20	0.50	0.48	0.01
Fan Outlet Ductsinches H2D	0.00	0.00	0.00
Burner	8.30	7.98	0.12
Convection Zoneinches #20	14.26	18.64	0.19
Bas Ducts	0.50	0.48	0.01
Total Draft Lossinches H20	23.56	22.53	0.33
Heat Losses (Based on KHV)			
Ory Gas	9.49	8.58	6.85
Hydrogen and Moisture in Fuel&	11.80	9.59	11,16
Moisture in Air	0.82	0.62	0.50
Unburned Combustible	0.00	0.00	0.90
Radistion	0.45	0.45	4.52
Manufacturer's Margin	1,00	1.00	1.00
Total Heat Loss	22.36	20.24	24.02
Predicted Efficiency	77.84	79.76	75.98
Fuel Flow-NG1bs/hr	8020.	-	820.
Fuel Flow-Propagelbs/hr		7860.	
Heat InputBTU/hr	175.0197	170.3877	17.8882



### **SECTION 4.0**

### BURNER SPECIFICATIONS

#### 4.1 Introduction

Two (2) 136,000 pounds per hour "O" type package boilers are each to be supplied with a low NOx packaged burner which will fire natural gas (or propane gas as the back-up).

Based upon the burner design specification presented in Section 2, TODD Combustion Product Group of the John Zink Company LLC (John Zink) is pleased to offer Victory Energy Operations LLC, for each boiler, our pre-engineered, TODD gas only low NOx Variflame burner with windbox, valve trains, miscellaneous field switches, flame scanning equipment, gas flow control valve and gas fuel meter.

Each packaged burner is factory pre-assembled to the maximum extent to minimize field installation and easily mounts onto the boiler frontplate.

The gas-electric ignitor will be sized to provide sufficient heat input for the stand-by condition (as recommended by the boiler supplier), in order to minimize the fuel usage to the boiler during stand-by.

In order to meet the NOx requirements, flue gas recirculation, in combination with the TODD low NOx burner, will be required. Flue gas recirculation will be induced into the F. D. fan, premixing with the combustion air upstream of the windbox.

Recognizing that combustion air is 94% of the mass flow through the burner, with fuel only being 6%, as part of the "system" solution for supplying a burner for optimum performance, John Zink will provide air flow distribution studies of the windbox and upstream combustion air duct, using our in-house CoolFlow physical modeling facilities. An approximate 8 to 1 scaled version of the combustion air system using plexiglas is built. These physical model studies determine the size and location of baffles to be provided, in order to assure balanced air flow to the burner, and will result in reduced system draft losses, reduced stack emissions at lower excess oxygen levels, and greater boiler efficiency. A drawing will be provided indicating the size and location of baffles, in the windbox and in the combustion air duct, if required.

### 4.2 Standard Features

Some of the standard design features of the TODD Variflame burner are:

- Flame stability at low excess air rates for reliable, energy efficient boiler operation
- High turndown ratios for wide range of boiler operation
- Axial parallel air flow to control the flame envelope and provide even heat flux.
- Known flame length and diameter, to suit furnace firing lane without impinging on boiler tubes or furnace walls
- Dual air registers provide internal staging of the combustion process to reduce NOx formation.
- Combustion air passes through a fixed dual air register design with no moving parts to reduce operator attention
- A strong flame front established approximately eight (8) inches off the face of the diffuser, which maintains the burner refractory throat cool, thus avoiding the replacement of the throat or tile often found on other burners that requires hot refractory to assure a stable burner flame

### Proposal No.: VE-2127r.6

- A strong flame front established approximately eight (8) inches off the face of the diffusor, which
  does not move during changes in the firing rate, thus providing a stable flame for scanning,
  resulting in reliable operation
- Flame scanner swivel mount for ease of "sighting" of flames, mounted on the burner frontplate
- Gas-electric ignitor, operates only through the cycle to light-off the main fuel, is fixed in the burner and terminates behind the diffuser; retraction mechanisms and associated limit switches are not required, thus minimizing boiler front components and reducing maintenance costs
- Heavy gauge construction of all components for ruggedness and durability during installation and servicing

### 4.3. Burner Design Basis & Specifications

### A. Burner Design Basis

Boiler Data

Manufacturer VEO
Type O
Design Steam Flow 136,000 lb/hr

Steam Pressure 250 psig (saturated)
Steam Temperature 406 Deg. F.

Furnace Operating Pressure
including FGR at MCR
Combustion Air Temperature
Flue Gas Temperature
15 in wg (approx)
100 deg F
550 deg F (Design Point)

### Fuel Data

Fuel Gas

Type Natural
High Heat Value 950 Btu/scf

Pressure Required at TODD interface 20 psig (regulated by others)

Fuel Gas

Type Propane
High Heat Value 2,500 Btu/scf
Pressure Required at TODD interface 20 psig (regulated by others)

Burner Management System Design
Insurance Guidelines
NFPA85 for single burner

Type of Operation Automatic, non-recycling

Miscellaneous Data

Burner Location Outdoors, non-hazardous
Plant Elevation Less than 1,000 ft asl
Power Supply Available 120V/1Ph/60Hz
Valve Train Construction ANSI B31.1 code
Instrument Air 40 - 80 psig

Surface Preparation and Painting Manufacturer standard
Quality Control Manufacturer standard

### Proposal No.: VE-2127r.6

### B. Burner Specifications

Number of Burners per Boiler Gas Firing per Burner - Natural Gas

Heat Input Turndown

Pressure at Burner Excess Air at MCR

Recycle Flue Gas Rate at MCR

Draft Loss at MCR

Туре

Gas Firing per Burner - Propane Gas

Heat Input Turndown

Pressure at Burner Excess Air at MCR

Recycle Flue Gas Rate at MCR

Draft Loss at MCR

Type

One (1)

174 mmbtu/hr

10 to 1 10 psig 15%

15%

7.5 in wg Variflame

169 mmbtu/hr

7-8 to 1 4 psig 15% 23%

9.0 in wg Variflame

### C. Gas Electric Ignitor Specifications

Number of Ignitors per Boiler

Gas Firing

Heat Input

Pressure at Burner

Purge air source

Purge air flow

Purge air pressure

Model

### One (1)

4 mmbtu/hr

5 psig (approx)

Plant air or instrument air

8 to 10 scfm

8 in wg above windbox pressure

TODD Stabelite

#### 4.4 Todd's Scope Of Supply

### Engineering Services

TODD will provide complete engineering and design for all TODD furnished equipment and materials specified in Section 3.D., including a comprehensive Instruction Manual complete with data sheets, TODD drawings, vendor drawings, parts list and operating instructions.

As part of the "system" solution for supplying a burner with remote fan for optimum performance, TODD will provide air flow distribution studies of the windbox and upstream combustion air duct, using our inhouse CoolFlowtm physical modeling facilities. An approximate 8 to 1 scaled version of the combustion air system using plexiglas is built. These physical model studies determine the size and location of baffles to be provided, in order to assure balanced air flow to the burner, and will result in reduced system draft losses, reduced stack emissions at lower excess oxygen levels, and greater boiler efficiency. A drawing will be provided indicating the size and location of baffles.



### Project Services

TODD will provide a submittal consisting of full size blue prints of packaged burner general arrangement drawing, valve train schematics, electrical schematics, and bill of materials for approval and six (6) copies of TODD's Instruction Manual.

### Jobsite Services

TODD can provide field advisory services during installation, and technical assistance services during initial start-up including operator training, at the per diem rate in effect at time of request, in accordance with our Service Terms. No jobsite services are included in our base bid. VEO has offered a daily per diem rate for field services.

#### D. Equipment and Materials

The following is an itemization of all components supplied by TODD.

- 1. One (1) windbox, non-insulated, will be fabricated of ASTM A-36 carbon steel plate, and complete with required structural framing, support legs, access door, lifting lugs, and baffles for balancing air flow distribution to the burner. The windbox will be provided with an inlet opening for connection to the combustion air duct. The windbox will be painted with manufacturer standard. The windbox will be seal welded to the boiler front plate.
- 2. One (1) TODD burner, fabricated using TODD standard stainless and mild steel components, complete with the following sub-assemblies, mounted in the windbox:
  - One (1) dual air register assembly
  - One (1) burner front hub assembly, complete with two (2) observation ports, and one (1) flame scanner swivel mount
  - One swirling diffuser assembly
  - One (1) gas burner (standard multi-poker design) assembly
  - One (1) ignition assembly complete with gas-electric ignitor, high tension cable and connector and high voltage transformer mounted in a NEMA 4 X SS enclosure
  - One (1) burner guide ring to be welded on the boiler front plate to align the burner to the burner opening (shipped loose)
  - One (1) throat former for installation of boiler front wall refractory at the burner opening (shipped loose)
- 3. The following valve trains will be shop mounted on the windbox to the maximum extent feasible, and will include valves, piping specialties and instrumentation as specified below. All electrical components will be wired to terminals to the windbox mounted burner control panel. Unless otherwise noted, the interface points are at the inlet of the supply manual shut-off valves and the discharge of vent, and drain valves.

Valve trains will be fabricated in accordance with ANSI B31.1 code. Valve trains will be painted with manufacturer standard.

Proposal No.: VE-2127r.6

### One (1) ignitor gas pilot train, consisting of:

- 1- 1" Supply manual shut-off valve, carbon steel body, SW
- 1- I" Gas strainer with basket "Y" type, carbon steel body, SW
- 1- 1" Gas pressure regulating valve, carbon steel body, 150# RF
- 2- 1" Automatic safety shut-off valves, carbon steel body, SW
- 1- 3/4" Automatic safety vent valve, carbon steel body, SW
- 1- 1" Ignitor manual shut-off valve, carbon steel body, SW
- 1- Ignitor pressure gauge, 4 in dial (Ashcroft), with isolation valve
- 1- Ignitor flexible hose, stainless steel body

### One (1) main fuel gas train, consisting of:

- 1- Supply pressure gauge, 4 in dial (Ashcroft), with isolation valve
- 1- Low gas pressure switch (Ashcroft)
- 1- 4" Automatic safety shut-off valve, with proof of closure switch, carbon steel body, 150# RF
- 2" Automatic safety vent valve, carbon steel body, SW
- 1- 2" Manual vent valve, locked in the open position, carbon steel body, SW
- 1- 4" Automatic safety shut-off valve, with proof of closure switch, carbon steel body, 150# RF
- 1- High gas pressure switch (Ashcroft)
- 2- Leak test connections with isolation valves
- I- Provision for gas flow control valve see item 3.D.7
- 1- 4" Burner manual shut-off valve, carbon steel body, 150# RF
- 1- Burner pressure gauge, 4 in dial (Ashcroft), with isolation valve
- 4. The following miscellaneous field switches will be mounted on the windbox:
  - One (1) combustion low air flow switch (Dwyer)
  - One (1) purge low air flow switch (Dwyer)
  - One (1) boiler drum steam high pressure switch (Ashcroft)
  - One (1) furnace high pressure switch (Dwyer)
  - One (1) low instrument air pressure switch (Ashcroft)
- One (1) VEO burner management and combustion control system, as outlined in the project specification and the VEO proposed bill of material located on page 22 of this proposal.



### Section 5.0

### **Burner Emission Guarantee**

- A. The following performance guarantees will be extended from twenty-five (25) to one hundred (100) percent of boiler load, provided that the system is operated at steady state conditions, in accordance with the Burner Design Basis and Specifications in Section 2:
  - Maximum emission levels on natural gas or propane gas, with all concentrations corrected to 3% oxygen, on a dry basis:

NOx	· · · .	0.036 lb/mmbtu
CO	•	0.037 lb/mmbtu
VOC		0.0017 lb/mmbtu
SOx		0.006 lb/mmbtu
PM/PM10		0.0039 lb/mmbtu

- The burners will maintain a stable flame with no deleterious impingement over the entire boiler load range
- B. All performance specifications stated throughout this proposal are intended to show probable operating results only which cannot be guaranteed except as expressly stated in the guarantee clause 4.A). Packaged boilers shall be designed and operate with the inboard row of furnace tubes forming a gas tight wall baffle to prevent the short circuiting of furnace gases to the boiler gas outlet, for performance guarantees to be in effect.
- C. Testing for performance guarantees shall be run within ninety (90) days after the equipment has been installed and operated. Others shall furnish all operating personnel and equipment for such tests. A John Zink trained service engineer shall fine tune the burner as required and observe the operation of auxiliary equipment to assure that performance guarantees will be met, prior to testing. John Zink's representative will have access to the records at all times and the tests will be conducted in a manner to ensure that the specified performance conditions are being maintained. John Zink will be supplied a complete copy of all test results and data.
- D. The equipment shall be considered accepted if tests show that the guarantees have been fulfilled, or if others fail to have the equipment tested within the specified period. In case of the failure to meet the guarantees, John Zink reserves the right to change or replace, on a straight time basis, the equipment furnished so that the guaranteed performance will be obtained.

# RECEIVED

November 21, 2005

NOV 22 2005

Indiantown Cogeneration, L.P. P.O. Box 1799 13303 SW Silver Fox Lane Indiantown, FL 34956

772.597.6500 Fax: 772.597.6210

Mr. Michael Halpin
Florida Department of Environmental Profession AIR REGULATION
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: <u>Indiantown Cogeneration Plant</u> <u>Permit No.: 0850102-008-AV</u>

Dear Mr. Halpin:

We appreciate the Department's prompt review of our air construction permit application for the installation of 2 new auxiliary boilers. We have the following comments on the draft application:

- 1. The facility is exempt from the acid rain provisions of the Clean Air Act. We are a Qualifying Facility (QF). The specific exemption is per 40 CFR 72.6(b)(5). Therefore, please revise the *Regulatory Classification* on page 2 of 13 to indicate that the facility is not subject to acid rain.
- 2. Our current Title V permit includes (as part of EU ID No. 003) conditions that apply to "Temporary Package Boiler (unregulated)." It is our understanding that these conditions will remain valid. We may need to use a temporary package boiler during the replacement of the auxiliary boilers; if so, we will do so in compliance with Conditions B.56 et. seq. in our current Title V air operation permit.
- 3. In our application, we used an EPA AP-42 emission factor to estimate sulfur dioxide emissions. In doing so we overlooked the fact that the boiler manufacturer (Victory) supplied a sulfur dioxide emissions estimate of 0.006 lb/MMBtu in their proposal to us. We would like to revise the permit to reflect this higher sulfur dioxide emission rate. Therefore, please revise the application to reflect potential sulfur dioxide emissions of 2.1 lb/hr, 5.3 TPY in Sections 4.1 and 6 of the Technical Evaluation and Preliminary Determination, and in Condition 11 of the Emission Unit Specific Conditions.

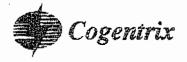
Thank you for your time and consideration. Please contact Mr. Nicholas Laryea at your convenience at 772-597-6500 ext. 19.

Sincerely,

Gary É. Willer General Manager

Day E. Wille

cc: Nicholas Laryea Tracy Patterson AJ. Jablonowski File



## Fax Message

Date: 12/1/2005					
To: Mike Halpm	Facsimile No.:	850-921-9533			
	Phone No.:	850-921-9519			
Company: DEP	No. of Pages:				
		(including this one)			
City/State: Tallahassee / FZ		·			
From: Nicholas Langea	Phone No.:	(772) 597-6500 × / 9			
Special Instructions:					
If transmittal is incomplete or illegible, please call at (772) 597-6500 x10.					

Message:

Mile, attached please find the affidavit of publication for the Indiantown Cogen public us like. / will send hand copies out today.

theres.

### CONFIDENTIALITY NOTICE

The information contained in this telefacsimile message is privileged and confidential, and intended only for the use of the individual(s) and/or entity(ies) named above. If you are not the intended recipient, you are hereby notified that any unauthorized disclosure, copying, distribution or taking of any action in reliance on the contents of the telecopy materials is strictly prohibited and review by any individual other than the intended recipient shall not constitute waiver of the attorney/client privilege. If you have received this transmission in error, please immediately notify us by telephone (collect) to arrange for the return of the materials. Thank you.

INDIANTOWN COGEN PGE 7725976210

**NEWSPAPERS** 

The Stuart News The Port St. Lucie News

1939 S. Federal Highway, Stuart, FL 34994

### AFFIDAVIT OF PUBLICATION

COUNTY OF MARTIN; COUNTY OF ST. LUCIE

Bafore the undersigned authority personally appeared, S. Darlene Mailing, who on cath says that she is Classified inside Sales Manager of the Stuart News and the Port St. Lucie News, a daily newspaper published at Stuart in Martin County, Florida: that the attached copy of advertisement was published in the Stuart/Port St. Lucie News in the following issues below. Affant further says that the said Stuart/Port St. Lucie News is a newspaper published in Stuart in said Martin County, Florida, with offices and pald circulation in Martin County and St. Lucie County. Florida, and that said newspapers have heretofore been continuously published in said Martin County, Florida, daily and distributed in Martin and St. Lucie County, Florida, daily and distributed in Martin and St. Lucie County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affient further says that she has neither paid of promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper. The Stuart News has been entered as Periodical Matter at the Post Offices in Stuart, Martin County, Florida and Ft. Pierce, St. Lucie County, Florida and has been for a period of one year next preceding the first publication of the attached copy of advertisement.

Customer

Number

Date

Copyline

**PO#** 

INDIANTOWN COGENERAT 1273949

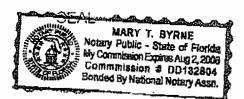
11/25/2005 NOTICE OF INTENT

0850102-008-AC

Subscribed and sworn to me before this date:

November 25, 2005

S. Darling Mailing



### 119 MISCELLANEOUS UT 19 VAISCELLANEOUS NOTICE NOTICE

PUBLIC NOTICE OF INTENT TO ISSUE

AIR CONSTRUCTION PERMIT

STATE OF ELORIDA

PUBLIC NOTICE OF INTENT TO ISSUE

AIR CONSTRUCTION PERMIT

STATE OF ELORIDA

PUBLIC NOTICE OF ELORIDA

PUBLIC NOTICE OF ELORIDA

LORAFT REPORT POPULATION OF THE INTENT OF THE IN

The Septiment Charles of reasons and cognitive to Cognitive the Cognitive to Septiment Charles of Septiment Cognitive to Septiment Cognitive Cogniti

A petition that disputes the internal vacous which the permitting suthority suction is based must contain the following information (a). The name and contains the following information (a). The name and contains the number of known; the the petitioner harms address, and telephone number of known; the the petitioner harms bedress and telephone number of the petitioner harms bedress and telephone number of the petitioner harms bedress and telephone sumber of the petitioner harms bedress and telephone sumber of the petitioner harms bedress and telephone sumber of the petitioner harms bedress such annual number of the petitioner harms of the petitioner harms of the petitioner harms of the petitioner received notice of the agency action or proposed acidion, (b) a statement of all dispituded is seen of materials fact of their size norms the petition must so state (e) A coppies statement of the petition must so state (e) A coppies statement of the unimar hard allegate as well as the missing and statutes which petitioner has statuted by those contends about the specific petition potentials and statutes of the specific petition petitioner. O telled (f) A statement of the specific petition petitioner to telled (f) A statement of the specific petition petitioner of the petitioner of the specific petition petition of the specific petitioner of the specific petition of the specific peti

Departing to Feaviron regist Protection

Bigles vol Air Fagulation

Group Magnorison resistant

Group Magnorison

Magn

Administrator Noto Separation Section of 111 South Migratia Drive Spite Awit allahasee Floting 820 Project Spite Awit allahasee Floting 820 Project Spite Sp

### Indiantown Cogeneration, L.P.

Indiantown Cogeneration, L.P. P.O. Box 1799 13303 SW Silver Fox Lane Indiantown, FL 34956

772.597.6500 Fax: 772.597.6210

RECEIVED

DEC 05 2005

BUREAU OF AIR REGULATION

December 01, 2005

Barbara Friday
Department of Environmental Protection
Bureau of Air Regulations
2600 Blair Stone Road, Mail Station # 5505
Tallahassee, FL 32399-2400

### VIA FEDERAL EXPRESS

Re: INTENT TO ISSUE AIR CONSTRUCTION PERMIT

PERMIT # 0850102-008-AV (INDIANTOWN COGENERATION PLANT)

### Dear Barbara:

Pursuant to the requirement of Chapter 50, Florida Statutes, attached please find proof of publication, i.e., newspaper affidavit for "Public Notice of Intent to Issue Air Construction Permit" in the Stuart News on November 25<sup>th</sup>, 2005.

If you have any questions, please contact Nick Laryea at 772-597-6500, extension 19.

Sincerely,

Gary É. Willer General Manager

Enclosure

cc:

N Laryea M. Halpin

Lay E. Willis

T. Patterson

File



# SCRIPPS TREASURE COAST NEWSPAPERS

The Stuart News
The Port St. Lucie News

1939 S. Federal Highway, Stuart, FL 34994

### AFFIDAVIT OF PUBLICATION

STATE OF FLORIDA

COUNTY OF MARTIN; COUNTY OF ST. LUCIE

Before the undersigned authority personally appeared, S. Darlene Mailing, who on oath says that she is Classified Inside Sales Manager of the Stuart News and the Port St. Lucie News, a daily newspaper published at Stuart in Martin County, Florida: that the attached copy of advertisement was published in the Stuart/Port St. Lucie News in the following issues below. Affiant further says that the said Stuart/Port St. Lucie News is a newspaper published in Stuart in said Martin County, Florida, with offices and paid circulation in Martin County and St. Lucie County, Florida, and that said newspapers have heretofore been continuously published in said Martin County, Florida, daily and distributed in Martin and St. Lucie County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid or promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper. The Stuart News has been entered as Penodical Matter at the Post Offices in Stuart, Martin County, Florida and Ft. Pierce, St. Lucie County, Florida and has been for a period of one year next preceding the first publication of the attached copy of advertisement.

Customer

Ad Number Pub Date

Copyline

PO#

INDIANTOWN COGENERAT 1273949

11/25/2005 NOTICE OF INTENT

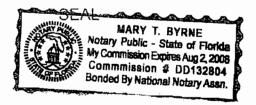
0850102-008-AC

Subscribed and sworn to me before this date:

November 25, 2005

S. Darlin Mailing

Notary Public



#### 0119 MISCELLANEOUS UT19 MISCELLANEOUS NOTICE NOTICE

PUBLIC NOTICE OF INTENT TO ISSUE TAIR CONSTRUCTION PERMIT STATE OF FLORIDA 2. DEPARTMENT OF

DRAFTPermit Project No. 0850102 008-AC | Indiantown Cogeneration Plant | Martin County|

The Department of Environmental Protection Department) gives notice for its intent to issue air construction permit to Indiantown Cogeneration, LP, for he Indiantown Cogeneration Plant, located at 13303/SW3/Silver, Fox Jams, Indiantown, Martin County, #The permit is sito install two identical auxiliary aboves a region plant, located at 13303/SW3/Silver, Fox Jams, Indiantown, Martin County, #The permit is sito install two identical auxiliary aboves a regional permit with discombined 350 MMBiuhr at three xisting facility. The boilers will only fire natural gas or inpropage and be limited to as combined 35000 hours per ayear of operation. The applicant is mailing raddress is. Indiantown, Cogeneration LP PP 0 (Box 1799) Indiantown, FL 34956.

A Best Available Control Technology (BACT) determination was not required, pursuant to Rule 62: 212.400 FA C. FAND 40 CFR, 152.21. Prevention of Significant Deterioration (PSD). An air quality impact was not conducted, or required. The Department will issue the Final permit with the lattached conditions unless 3 response received in accordance with the following procedures results in a different decision of significant change of terms for conditions.

The Department will accept written comments soncerning the proposed permit issuance action for a begind of 614 (Fourteen) days from the date of publication of this Public Notice of Linent to Issue Arr 2 Construction. Permit Written comments Soundard Soundar

A petition that disputes the material racission which the permitting authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency sille or identification number, it known; (b) The name, address, and telephone number of the petitioner's and address, and telephone number of the petitioner's representative if any, which shall be the address for service, purposes during the course of the proceeding, and an explanation of how petitioner's representative if any, which shall be the address for service, purposes during the course of the gency action or proposed, action (d) A statement of how and when the petitioner received notice of the agency action or proposed, action (d) A statement of how and when the petitioner received notice of the agency action or proposed, action (d) A statement of all disputed is sues of material fact all there are none this petition must so state (e) A concise statement of the gent of the statement of the specific rules or statutes the petitioner accontends require reversal for amount of the specific rules or statutes the petitioner accontends require reversal for amount of the specific rules or statutes the petitioner accontends require reversal for amount of the specific rules or statutes the petitioner accontends require reversal for amount of the specific rules or statutes the petitioner accontends require reversal for amount of the specific rules or statutes the petitioner accontends require reversal for amount of the specific rules or statutes the petitioner accontends require reversal for amount of the specific rules or statutes the petitioner accontends require reversal for amount of the specific rules or statutes the petitioner accontends require reversal for a modification of the specific rules or statutes the petitioner of the specific rules or statutes the petitio

nary: Determination as well as the may be viewed at http://www.dep.state Air/permitting/construction htm . ... Publish: November 25, 2005:

The state of the s