

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

October 13, 2009

RECEIVED

OCT 14 2009

BUREAU OF AIR REGULATION

Jeff Koerner
DEP Bureau of Air Regulation
MS 5500
2600 Blair Stone Rd
Tallahassee, FL 32399-2400

**Subject: Indiantown Cogeneration, LP
Permit PSD-FL-168, 0850102**

Dear Mr. Koerner,

This letter informs you that Indiantown Cogeneration, LP, is performing a replacement-in-kind project at our the existing Indiantown Cogeneration Plant, which is located in Martin County at 13303 SW Silver Fox Lane in Indiantown, Florida. We will be replacing a feedwater heater with like equipment during our outage scheduled for October 24 thru November 6, 2009.

This replacement is specifically excluded from the definitions of modification and major modification in 62 F.A.C. 204.200(24)(a) and 210.200(192)(c), both of which state "A physical change or change in the method of operation shall not include... routine maintenance, repair, or replacement." Similarly, the project does not meet the definition of reconstruction in 62 F.A.C. 210.200(259), because the fixed capital cost of the new components do not exceed 50 percent of the fixed capital cost that would be required to construct a comparable entirely new emissions unit.

Therefore, the equipment replacement does not trigger construction permitting under 62-4. and does not trigger Prevention of Significant Deterioration (PSD) permitting under 62-212.400.

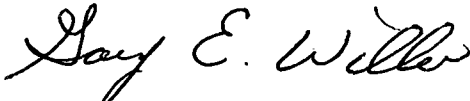
Regarding New Source Performance Standards, a modification is defined in 40 CFR 60.14(a) as "...any physical or operational change to an existing facility which results in an increase in the emission rate to the

atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act." The regulation further states at 40 CFR 60.14(h): "No physical change, or change in the method of operation, at an existing electric utility steam generating unit shall be treated as a modification for the purposes of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the 5 years prior to the change." We do not believe replacing the feedwater heater will increase the emission rate of any pollutant regulated under NSPS Subpart Da, and therefore the project is not a modification under the federal New Source Performance Standards.

Specifications for the old and new feedwater heater are attached for your information.

No permitting action is required. If you have any questions, please contact Nicholas Laryea at 772-597-6500 extension 19.

Sincerely,



Gary E. Willer
General Manager

Cc: Lennon Anderson, Southeast District Air Management Program,
Lauren Billheimer, Cogentrix Energy
Hao Duong, Indiantown Cogeneration L.P.
A.J. Jablonowski, Epsilon Associates
File # 2.5.2

FEEDWATER HEATER SPECIFICATION SHEET

AS BUILT

NEW HEATER

CUSTOMER:	COGENTRIX ENERGY, INC	DATE:	08/12/2009
ADDRESS:		CUST. INQ. NO:	
PLANT LOCATION:	INDIANTOWN COGENERATION FAC.	CUSTOMER ORDER NO:	
		PROP. NO.:	QH-6554-09
		JOB NO:	09-H-431-1
SERVICE OF UNIT:	I.P. FEEDWATER HEATER NO. 5	ITEM:	IP-5
SIZE:	62-385 TYPE: U-TUBE	ENGR:	AD
SURFACE PER SHELL (SQ. FT)	EFFECTIVE: 12,004	GROSS:	12,302
NO. OF SHELLS PER UNIT:	1	NO. OF UNITS:	1
		POSITION:	HORIZONTAL

PERFORMANCE OF ONE SHELL

		SHELL SIDE		TUBE SIDE
FLUID CIRCULATED		STEAM	DRAINS	FEEDWATER
TOTAL FLUID ENTERING	LB/HR	104,021	397,754	2,521,231
INLET ENTHALPY	BTU/LB	1320.4	312.5	250.4
OUTLET ENTHALPY	BTU/LB		259.8	302.5
INLET TEMPERATURE	°F	581	(331.0 SAT)	280.4
OUTLET TEMPERATURE	°F		290.4	331.0
OPERATING PRESSURE	PSIA		104.5	
NUMBER OF PASSES		COND, DSH & SUBCL		2
VELOCITY	FT/SEC			6.0 @ SG =1
PRESSURE DROP	PSI	DESUP 0.9	SUBCL 3.1	8.3

	HEAT TRANSFERRED BTU/HR	SURFACE SQ. FT	LMTD °F	HT TRANS RATE BTU/HR / SQ. FT / °F	BAFFLE PITCH	REF TEMPERATURE DIFFERENCE °F
DESUPERHEATING	10,052,000	1146	139.6	63	12.625	°F
CONDENSING	100,437,000	8,963	15.1	742		TTD 0.0
DRAIN COOLING	20,763,000	1895	22.3	491	7.625	DCA 10.0

CONSTRUCTION--EACH SHELL

		SHELLSIDE		TUBESIDE
DESIGN PRESSURE	PSIG	135 & FULL VAC		610
TEST PRESSURE	PSIG	180		795
DESIGN TEMPERATURE	°F	SHELL 400	SKIRT 650	360
MINIMUM DESIGN METAL TEMP. (°F)		SHELLSIDE 80.		TUBESIDE 80.
TUBES SA-688-TP304 (.05MC)	NO. U's 1125	OD 5/8"	.035" Avg	LENGTH 32'-1" STR
SHELL SA-516-70	ID: 62	TUBE PITCH: 29/32"		TRIANGULAR
SHELL COVER	SA-516-70-WELDED TO SHELL	SHELL SKIRT		SA-516-70
CHANNEL (SR)	SA-516-70	CHANNEL COVER		SA-516-70
TUBE SHEET	SA-350 LF2 CLASS 1	IMPINGEMENT PLATE		SA-240-304
SUPPORT PLATES	STEEL	ZONE BAFFLES		STEEL
SHROUDS-DSH	STEEL	SUBCOOLER		STEEL
TYPE JOINTS-SHELLSIDE	WELDED	TUBE SIDE		ELLIPTICAL
GASKETS-SHELL	-----	CHANNEL		W / MANWAY
CONNECTIONS: STEAM INLET	16" W.E.	DRAINS INLET	10" W.E.	
DRAINS OUTLET	14" W.E.	EMERGENCY DRN	14" W.E.	
FEEDWATER INLET	16" W.E.	OUTLET	16" W.E.	

CODE REQUIREMENTS	ASME 2007 SECTION VIII, DIVISION 1 w/2008 ADDENDA		
WEIGHTS (LB) SHELL AND BUNDLE	49,900	BUNDLE 37,800	FULL OF WATER 96,200
SHELL SAFETY VALVE	BY YUBA	TUBE SIDE RELIEF VALVE	BY YUBA
SHELL GAUGE GLASS	BY PURCHASER		
REMARKS:	Tubes Roller expanded into Tubesheet.		
	Shell Roller Supports Provided		
	11 Installed spare tubes included, not counted as effective surface		
	Two shell cut band provided to reduce shellremoval distance.		
	SA-387-11 CLASS 2 (Alloy stell) drain cooler end plate.		
REV 1 BY PV	ADDED MATERIALS IN LINE 24,25,26,27 AND 43		

YUBA HEAT TRANSFER

P. O. BOX 3156, TULSA, OK 74101-3156

(918) 234-6000

OLD HEATER

FEEDWATER HEATER SPECIFICATION SHEET

"AS BUILT"

CUSTOMER BECHTEL POWER CORPORATION	DATE 10/20/92(AB 4/16/93)
ADDRESS	CUST. INO. NO. 22019-M-010
PLANT LOCATION INDIANTOWN COGENERATION FACILITY	CUST. ORDER NO.
	PROP. NO. OH-2916-92
	JOB NO. 93-H-199-5
1 SERVICE OF UNIT INTERMEDIATE PRESSURE HEATER 5	ITEM NO. EH-5
2 SIZE 72-221 TYPE U-TUBE	ENGRS. AD
3 SURFACE PER SHELL EFFECTIVE 14,319 SQ. FT. TOTAL 14,676 SQ. FT.	
4 NO. OF SHELLS PER UNIT 1 NO. OF UNITS 1 POSITION HORIZONTAL	

PERFORMANCE OF ONE SHELL

		SHELL SIDE		TUBE SIDE		
		STEAM	DRAINS	FEEDWATER		
5 FLUID CIRCULATED						
6 TOTAL FLUID ENTERING #/HR		104,021	397,754	2,521,231		
7 INLET ENTHALPY BTU/#		1320.40	312.5	250.4		
8 OUTLET ENTHALPY BTU/#			259.9	302.5		
9 INLET TEMPERATURE °F		582.3 (331.0 SAT.)		280.4		
10 OUTLET TEMPERATURE °F			290.4	331.0		
11 OPERATING PRESSURE PSIA		104.5				
12						
13 NUMBER OF PASSES		COND. DSH. & DC		TWO		
14 VELOCITY FT/SEC				3.00 AT 60° F		
15 PRESSURE DROP PSI		DSH 1.1	DC 2.7	2.3		
	HEAT EXCHANGED BTU/HR	SURFACE SQ. FT.	LMTD °F	HT. TRAN. RATE BTU/HR/SQ. FT./°F	BAFF. PITCH	Reference Temp. Difference F
16 DESUPERHEATING	10,935,000	1398	126.5	62		TTD 0.0
17 CONDENSING	99,632,000	10679	15.3	610		DCA 10.0
18 DRAIN COOLING	20,682,000	2242	22.2	416		

CONSTRUCTION - EACH SHELL

		Shell Side	Tube Side
19 DESIGN PRESSURE PSI		135 & F. V.	610
20 TEST PRESSURE PSI		CODE	915
21 DESIGN TEMPERATURE °F		SHELL 400 SKIRT 650	360
22 TUBES SA-688-304(.05MC)		NO. 2228 U's 5/8" OD 20 AVG LENGTH 18'- 5" STR	
23 SHELL STEEL		72" ID	PITCH 13/16" TR
24 SHELL COVER		STEEL-WELDED TO STEEL	SHELL SKIRT STEEL
25 CHANNEL(SR)		STEEL	CHANNEL COVER STEEL
26 TUBE SHEET		STEEL	IMPINGEMENT PLATE STAINLESS STEEL
27 SUPPORT PLATES		STEEL	ZONE BAFFLES STEEL
28 SHROUDS-DSH		----	DC STEEL
29 TYPE JOINTS-SHELL SIDE WELDED		TUBE SIDE	ELLIPTICAL
30 GASKETS-SHELL		----	CHANNEL W/ 18" MANWAY
31 CONNECTIONS: STEAM-INLET 16"		DRAINS-INLET 10"	SERIES W.E.
32		DRAINS-OUTLET 14"+ 14" EMERGENCY DUMP	SERIES W.E.
33		FEEDWATER-INLET 16"	OUTLET 16" SERIES W.E.
34 CODE REQUIREMENTS: ASME 1992 SECTION VIII, DIVISION 1			
35 WEIGHTS-SHELL AND BUNDLE 55,700 BUNDLE 44,600 FULL OF WATER 94,300			
36 SHELL SAFETY VALVE CONSOLIDATED		TUBE SIDE RELIEF VALVE CONSOLIDATED	
37 SHELL GAUGE GLASS BY PURCHASER			
38 REMARKS: TUBES ROLLED INTO TUBESHEET.			
39		SHELL ROLLERS PROVIDED.	
40		M.D.M.T. 80 DEG. F.	
41		MINIMUM HYDROTEST TEMPERATURE 60 DEG. F.	
42			
43			

