B&V PROJECT #: PROJECT ESTIMATOR: PROJECT MANAGER: 168908 Ron Fields Tim Hillman PURPOSE OF ESTIMATE: ESTIMATE DATE: ='Spec Summary'!D6 March-11

LOCATION: PLANT TYPE: CLIENT: Jefferson County, KY PC Fired Boiler LG&E - KU N/A US Dollars

PARTNER: CURRENCY: BLACK AND VEATCH CONFIDENTIAL AND PROPRIETARY INFORMATION

Separation			PROJECT - TOTAL COSTS						I	
STIMATE SUMMARY Purchase Contracts:		Description			Labour	Manhaum	Other	TOTAL C		KW
Purchase Contracts: 6 1,000.0 Cold / Security (Cold			Materiai \$	Materiai \$	Labor \$	Mannours	Otner	TOTAL \$		423
Standard	ESTIMATE	SUMMARY								
13.1361 Ductwork and tresching \$1,962,800 \$50 \$50 \$0.000 \$3,252,200 \$1,52% \$6,11 \$6,000 \$2,000 \$1,000 \$3,000 \$	Purchase C	ontracts:								
	61.0000	Civil / Structural	\$1,172,200	\$102,505	\$0	0	\$984,736	\$2,259,441	1.33%	\$5.34
S3,000 Electrical - (BOP) Elipsiphement and microway \$280,000 \$1,052,720 \$50 \$0 \$5 \$1,352,720 \$0,005 \$3,320 \$3,200 \$3,320 \$3,200	61.3801	Ductwork and breeching	\$1,982,800			0	\$600,000	\$2,582,800	1.52%	\$6.11
Section Sect	62.0000	Mechanical - Balance of Plant - (BOP)	\$0	\$0		0	\$50,000	\$50,000	0.03%	\$0.12
Sat 1962 Cable Bus						-	·			
S.3.380 Switchgear and MCCs	63.3002		\$2,938,000	·			·		1.73%	\$6.95
\$3.3802 SUS Transformers \$2.39,762 \$0 \$0 \$0 \$0 \$2.30,762 \$0.14% \$0.07 \$0.3303 Aur. Transformers \$562,000 \$0 \$0 \$0 \$0 \$0 \$50 \$50 \$0.0 \$0.30 \$562,000 \$0.37% \$1.36 \$1.30 \$1.00 \$			·							
Ga.389 Am. Transformers			. , ,			-	·			
46 4000 Control - DCS, Instrumentation SSC8,000 \$0 \$0 \$0 \$0 \$0 \$0 \$86,000 \$0.77% \$1.46 \$4.407 Configuration Conf							·			
49.447 Online Performance Monitoring - Neural Network \$0 \$0 \$0 \$0 \$57,000 \$57,000 \$57,000 \$1.35 \$6.312 \$50 \$6.312 \$6.6270 \$6.6				·	·					
65.312 Sorbent Injection \$2,000,000 \$0 \$0 \$0 \$0 \$2,000,000 \$1.18% \$34.73 \$65.312 Fabric Filter \$15,000,000 \$0 \$0 \$0 \$0 \$0 \$15,000,000 \$0.95 \$0.95 \$0 \$0 \$0 \$15,000,000 \$0.95							·			
65.300 H-PAC Mercury Cornerol \$15,000,000 \$0 \$0 \$0 \$0 \$0 \$15,000,000 \$8.44% \$35.46 \$6.500 H-PAC Mercury Cornerol \$31,001,000 \$0 \$0 \$0 \$0 \$0 \$100,000 \$415,018 \$0.44 \$0.58 \$6.600 Piping & Tulbing \$315,018 \$50 \$50 \$0 \$0 \$100,000 \$415,018 \$0.44 \$0.58 \$0.27 Pipe Supports \$50 \$79,250 \$0 \$0 \$0 \$50,000,000 \$415,018 \$0.44 \$0.58 \$0.27 Pipe Supports \$50 \$79,250 \$0 \$0 \$0 \$50,000,000 \$2,95% \$11,02 \$0.27 Pipe Pipe Pipe Pipe Pipe Pipe Pipe Pipe			* -				. ,			
65.350 H-PAC Mercury Control 66.1000 Piping & Tubing 66.1007 Piping is S15,0161 S						ŭ				
66.070 Piping & Tubing Stubing S15.018 S0 S0 S0 S0 S100.000 S415.018 C24% S0.98 6.0270 Pipe Supports S0 S0 S79.250 S0					·	-	* -			
66.2070 Pipe Supports S0 \$79,250 \$0 0 \$0 \$79,250 \$0.00% \$0.177,000				·			·			
67.0414 Fly Ash Transfer System			. ,	·		-	. ,			
66.300 Valves and Accessories							·			
67.9532 Deboster Fans \$250,000 \$0 \$0 \$0 \$0 \$250,000 \$0.15% \$4.61 Subtotal Purchase Contracts: \$29,832,770 \$4,704,675 \$50 \$0 \$57,315,536 \$41,852,981 \$24,66% \$98,94 Construction Contracts: \$29,832,770 \$4,704,675 \$50 \$0 \$7,315,536 \$41,852,981 \$24,66% \$98,94 Construction Contracts: \$1,710,000 Demolition works \$0 \$0 \$32,838 \$640 \$1,350,000 \$1,382,838 \$0.81% \$3.27 T1,0100 Demolition works \$0 \$0 \$0 \$0 \$0 \$0 \$1,428,000 \$1,428,000 \$1,428,000 \$0 \$1,428,000			·	·		-				
Subtotal Purchase Contracts: \$29,832,770 \$4,704,875 \$50 \$0 \$50 \$51,948,000 \$1,15% \$54,61			·			-	·			
Subtotal Purchase Contracts: \$29,832,770 \$4,704,675 \$0 0 \$7,315,536 \$41,852,981 24.66% \$98.94			. ,	·			·			
Construction Contracts: 71.0101 Demolition works S0 S0 S32.838 S640 \$1.350.000 \$1.382.838 0.81% \$3.27 71.0401 Civil / Structural Construction - Cast In place Pilling S0 S0 \$1.428.000 \$1.428.000 \$1.428.000 0.84% \$3.37 71.0403 Civil / Structural Construction - Super Structures S0 \$0 \$1.927.50 \$2.7348 \$2.990.000 \$4.882.750 2.88% \$11.55 71.0402 Civil / Structural Construction - Sub-Structures S0 \$0 \$1.927.50 \$2.7348 \$2.990.000 \$4.882.750 2.88% \$11.55 72.0000 Mechanical / Chemical Construction S0 \$0 \$1.820.00 \$5.847.200 \$2.7348 \$2.990.000 \$4.882.750 2.88% \$11.55 73.0001 Electrical / Control Construction S0 \$182.000 \$5.847.200 93.885 \$10.800 \$6.040.000 3.56% \$1.428.000 75.3200 Mechanical - Serubber Refurbishment \$0 \$0 \$0 \$0 \$3.29.44.177 \$3.2944.177 \$3.2944.171 \$3.2944	67.9532	ID Booster Fans	\$1,948,000	20	\$0	U	\$0	\$1,948,000	1.15%	\$4.61
71.0100 Demolition works \$0		Subtotal Purchase Contracts:	\$29,832,770	\$4,704,675	\$0	0	\$7,315,536	\$41,852,981	24.66%	\$98.94
71.0100 Demolition works \$0	Camatuustia									
71,0401 Civil Structural Construction - Cast In place Piling \$0 \$0 \$0 \$0 \$1,428,000 \$1,428,000 \$1,428,000 \$1,428,000 \$1,4002 \$1,0012 \$1,00			0.2	90	\$32,838	\$640	\$1.350,000	¢1 392 939	0.81%	¢3 27
71,0403 Civil Structural Construction - Super Structures \$0										
Triolog				·	·					
Page			·	. ,			. ,	. , ,		
Total Direct Costs S29,832,770 S10,200 S5,847,200 S5,847,200 S3,855 S10,800 S0,040,000 S14,28 S77,88 S10,2027 S10,672,241 S10,322,027 S10,672,241 S10,322,243,662 S10,770,767 S10,322 S10,770,767 S10,770,770 S1			·	·						
Total Direct Costs Supplement So So So So So So So S			·	·						
Service Contracts & Construction Indirects \$0 \$2.944,725 \$3.314,884 71,397 \$10,672,418 \$16,932,027 9.98% \$40.03 Subtotal Construction Contracts: \$0 \$3,620,941 \$25,741,881 434,044 \$52,809,962 \$82,172,785 48.42% \$194.26 Total Direct Costs \$29,832,770 \$8,325,616 \$25,741,881 434,044 \$60,125,498 \$124,025,766 73.09% \$293.21 Indirect Costs: 99.1100 Engineering Costs (Includes G&A) \$0 \$0 \$2,460,000 60,000 \$3,655,560 \$6,115,560 3.60% \$14.46 99.1200 EPC Construction Management (Includes G&A) \$0 \$2,097,599 \$4,460,812 99.672 \$4,212,356 \$10,770,767 6.35% \$25.46 99.1500 Project Insurance \$0 \$0 \$0 \$0 \$0 \$2,249,969 \$1.39% \$5.32 99.1600 Performance Bond \$0 \$0 \$0 \$0 \$0 \$2,249,969 \$1.39% \$5.32 99.1600 Performance Bond \$0 \$0 \$0 \$0 \$0 \$2,249,969 \$1.39% \$5.32 99.1900 Sales Tax 6% of Indirect materials and services \$0 \$47,732 \$0 \$0 \$0 \$0 \$863,844 \$963,844 \$0.57% \$2.28 99.2500 Project Contingency 10 % \$0 \$47,732 \$0 \$0 \$0 \$0 \$14,417,264 \$414,17,264 \$8.50% \$34.08 99.2600 EPC Profit \$0 \$0 \$0 \$0 \$14,417,264 \$14,417,264 \$8.50% \$34.08 99.2600 EPC Profit \$0 \$0 \$0 \$0 \$11,101,000 \$11,101,000 \$11,101,000 \$11,101,000 \$10,00% \$401.16										
Indirect Costs: 99.1100 Engineering Costs (Includes G&A) \$0 \$0 \$2,460,000 60,000 \$3,655,560 \$6,115,560 3.60% \$14,46 \$91.120 EPC Construction Management (Includes G&A) \$0 \$2,097,599 \$4,460,812 99,672 \$4,212,356 \$10,770,767 6.35% \$25,46 \$99.1500 Project Insurance \$0 \$0 \$0 \$0 \$0 \$0 \$2,248,969 1.33% \$5.328 \$99.1900 Performance Bond \$0 \$0 \$0 \$0 \$0 \$0 \$963,844 \$663,844 0.57% \$2.28 \$99.1900 \$2,248,969 1.33% \$5.328 \$99.2500 Project Contingency 10 % \$0 \$47,732 \$0 \$0 \$0 \$41,417,264 \$41,417,264 \$1.50% \$34.08 \$99.2600 EPC Profit \$0 \$0 \$2,145,331 \$6,920,812 159,672 \$36,598,992 \$45,665,135 28.63% \$10.770,66 \$10.770,67 \$1.770,				·	·					
Second S		Subtotal Construction Contracts:	\$0	\$3,620,941	\$25,741,881	434,044	\$52,809,962	\$82,172,785	48.42%	\$194.26
Second S										
99.1100 Engineering Costs (Includes G&A) \$0 \$0 \$2,460,000 60,000 \$3,655,560 \$6,115,560 3.60% \$14.46 99.1200 EPC Construction Management (Includes G&A) \$0 \$2,097,599 \$4,460,812 99,672 \$4,212,356 \$10,770,767 6.35% \$25.46 99.1500 Project Insurance \$0.000 \$0 \$0.000 \$2,248,969 \$2,248,969 \$1.33% \$5.32 99.1600 Performance Bond \$0.0000 \$0.00000 \$0.00000 \$0.0000 \$0.00000 \$0.0000 \$0.0000 \$0.0000 \$0.0000 \$0.00000 \$0.000		Total Direct Costs	\$29,832,770	\$8,325,616	\$25,741,881	434,044	\$60,125,498	\$124,025,766	73.09%	\$293.21
99.1100 Engineering Costs (Includes G&A) \$0 \$0 \$2,460,000 60,000 \$3,655,560 \$6,115,560 3.60% \$14.46 99.1200 EPC Construction Management (Includes G&A) \$0 \$2,097,599 \$4,460,812 99,672 \$4,212,356 \$10,770,767 6.35% \$25.46 99.1500 Project Insurance \$0.000 \$0 \$0.000 \$2,248,969 \$2,248,969 \$1.33% \$5.32 99.1600 Performance Bond \$0.0000 \$0.00000 \$0.00000 \$0.0000 \$0.00000 \$0.0000 \$0.0000 \$0.0000 \$0.0000 \$0.00000 \$0.000										
99.1200 EPC Construction Management (Includes G&A) \$0 \$2,097,599 \$4,460,812 99,672 \$4,212,356 \$10,770,767 6.35% \$25.46 99.1500 Project Insurance \$0 \$0 \$0 \$0 \$2,248,969 \$2,248,969 1.33% \$5.32 99.1600 Performance Bond \$0 \$0 \$0 \$0 \$963,844 \$963,844 0.57% \$22.89 99.1900 Sales Tax 6% of Indirect materials and services \$0 \$47,732 \$0 \$0 \$0 \$14,417,264 \$14,417,264 8.50% \$34.08 99.2600 EPC Profit \$0 \$0 \$0 \$0 \$11,101,000 \$11,101,000 6.54% \$26.24 \$10.796 \$10.7	Indirect Cos	sts:								
99.1500 Project Insurance \$\$0 \$0 \$0 \$0 \$0 \$2,248,969 \$2,248,969 \$1.33% \$5.32 \$9.1600 Performance Bond \$\$0 \$0 \$0 \$0 \$963,844 \$963,844 \$0.57% \$2.28 \$91.900 Sales Tax 6% of Indirect materials and services \$\$0 \$47,732 \$\$0 \$0 \$0 \$47,732 \$0.03% \$0.11 \$92.500 Project Contingency 10 % \$\$0 \$\$0 \$\$0 \$\$14,417,264 \$14,417,264 \$8.50% \$34.08 \$92.600 EPC Profit \$\$0 \$\$2,145,331 \$\$6,920,812 \$\$159,672 \$\$36,598,992 \$\$45,665,135 \$28.63% \$107.96\$ \$\$10,470,948 \$\$32,662,693 \$\$93,716 \$\$96,724,490 \$\$169,690,901 \$100.00% \$\$401.16\$	99.1100	Engineering Costs (Includes G&A)	\$0	\$0	\$2,460,000	60,000	\$3,655,560	\$6,115,560	3.60%	\$14.46
99.1600 Performance Bond \$0 \$0 \$0 \$0 \$963,844 \$963,844 0.57% \$2.28 \$91.900 Sales Tax 6% of Indirect materials and services \$0 \$47,732 \$0 0 \$0 \$47,732 0.03% \$0.11 \$99.2500 Project Contingency 10 % \$0 \$0 \$0 \$14,417,264 \$14,417,264 \$1.44	99.1200								6.35%	
99.1900 Sales Tax 6% of Indirect materials and services \$0 \$47,732 \$0 0 \$0 \$47,732 0.03% \$0.11 99.2500 Project Contingency 10 % \$0 \$0 \$0 \$0 \$14,417,264 \$14,417,26	99.1500	Project Insurance	\$0	\$0	\$0	0	\$2,248,969	\$2,248,969	1.33%	\$5.32
99.2500 Project Contingency 10 % \$0 \$0 \$0 \$0 \$14,417,264 \$14,417,264 8.50% \$34.08 99.2600 EPC Profit \$0 \$0 \$0 \$0 \$0 \$11,101,000 \$11,101,000 6.54% \$26.24 Total Indirect Costs \$0 \$2,145,331 \$6,920,812 159,672 \$36,598,992 \$45,665,135 28.63% \$107.96			\$0			0				\$2.28
99.2600 EPĆ Profit \$0 \$0 \$0 0 \$11,101,000 \$11,101,000 6.54% \$26.24 Total Indirect Costs \$0 \$2,145,331 \$6,920,812 159,672 \$36,598,992 \$45,665,135 28.63% \$107.96 Total Overnight (Mar. 2011) EPC Capital Costs: \$29,832,770 \$10,470,948 \$32,662,693 593,716 \$96,724,490 \$169,690,901 100.00% \$401.16	99.1900	Sales Tax 6% of Indirect materials and services	\$0	\$47,732	\$0	0	\$0	\$47,732	0.03%	\$0.11
Total Indirect Costs \$0 \$2,145,331 \$6,920,812 159,672 \$36,598,992 \$45,665,135 28.63% \$107.96 Total Overnight (Mar. 2011) EPC Capital Costs: \$29,832,770 \$10,470,948 \$32,662,693 593,716 \$96,724,490 \$169,690,901 100.00% \$401.16	99.2500	Project Contingency 10 %	\$0	\$0	\$0	0	\$14,417,264	\$14,417,264	8.50%	\$34.08
Total Overnight (Mar. 2011) EPC Capital Costs: \$29,832,770 \$10,470,948 \$32,662,693 593,716 \$96,724,490 \$169,690,901 100.00% \$401.16	99.2600	EPC Profit	\$0	\$0	\$0	0	\$11,101,000	\$11,101,000	6.54%	\$26.24
		Total Indirect Costs	\$0	\$2,145,331	\$6,920,812	159,672	\$36,598,992	\$45,665,135	28.63%	\$107.96
		Total Overnight (Mar. 2011) FPC Canital Costs	\$29.832.770	\$10,470,948	\$32,662,693	593.716	\$96,724,490	\$169,690,901	100.00%	\$401.16
\$0 \$0 \$0 0 \$0 \$0 0.00% \$0.00										•
			\$0	\$0	\$0	0	\$0	\$0	0.00%	\$0.00

Separate Line Item Cost Break Out (Items listed below are included in the above EPC estimate)

 Demolition
 SCR
 Scrubber R
 Scrubber St \$1,700,891 \$0 \$38,874,058 Scrubber Refurbishment \$1,043,988 Scrubber Steel Refurbishment

B&V PROJECT #: 168908
PROJECT ESTIMATOR: Ron Fields
PROJECT MANAGER: Tim Hillman
PURPOSE OF ESTIMATE: Budgetary
ESTIMATE DATE: March-11

CLIENT:
PARTNER:
CURRENCY:
BLACK AND VEATCH CONFIDENTIAL AND PROPRIETARY INFORMATION

LOCATION: Jefferson County, KY
PLANT TYPE: PC Fired Boiler
CLIENT: LG&E - KU
PARTNER: N/A
CURRENCY: US Dollars

		PROJECT - TOTAL COSTS							
Contract Number	Description	Engr Equip	Commodities					% OF TOTAL C.V.	\$ PER KW
		Material \$	Material \$	Labor \$	Manhours	Other	TOTAL \$		423
ESTIMATE	SUMMARY								
Purchase C	ontracts:								
61.0000	Civil / Structural	\$3,155,000	\$102,505	\$0	0	\$1,584,736	\$4,842,241	2.85%	\$11.45
62.0000	Mechanical	\$2,513,018	\$311,250	\$0	0	\$5,150,000	\$7,974,268	4.70%	\$18.8
63.0000	Electrical	\$5,538,752	\$4,290,920	\$0	0	\$10,800	\$9,840,472	5.80%	\$23.26
64.0000	Control	\$626,000	\$0	\$0	0	\$570,000	\$1,196,000	0.70%	\$2.83
65.0000	Chemical	\$18,000,000	\$0	\$0	0	\$0	\$18,000,000	10.61%	\$42.5
	Subtotal Purchase Contracts:	\$29,832,770	\$4,704,675	\$0	0	\$7,315,536	\$41,852,981	24.66%	\$98.94
Constructio	n Contracts:								
71.0100	Demolition Works	\$0	\$0	\$32,838	640	\$1,350,000	\$1,382,838	0.81%	\$3.27
71.0100	Site Finishing	\$0	\$0 \$0	\$32,636 \$0	040	\$1,330,000	\$1,302,636	0.00%	\$0.00
71.0203	Cast In place Piling	\$0 \$0	\$0 \$0	\$0 \$0	0	\$1,428,000	\$1,428,000	0.84%	\$3.38
71.0402	Civil / Structural Construction -Substrucutres	\$0	\$494,216	\$1,901,835	33,594	\$173,027	\$2,569,078	1.51%	\$6.07
71.0403	Civil / Structural Construction- Superstructures	\$0	\$0	\$1,892,750	27,348	\$2,990,000	\$4,882,750	2.88%	\$11.5
72.0000	Mechanical / Chemical Construction	\$0	\$0	\$12,752,375	207,479	\$36,185,717	\$48,938,092	28.84%	\$115.69
73.0000	Electrical / Control Construction	\$0	\$182,000	\$5,847,200	93,585	\$10,800	\$6,040,000	3.56%	\$14.28
78.0000	Service Contracts & Construction Indirects	\$0	\$2,944,725	\$3,314,884	71,397	\$10,672,418	\$16,932,027	9.98%	\$40.03
	Subtotal Construction Contracts:	\$0	\$3,620,941	\$25,741,881	434,044	\$52,809,962	\$82,172,785	48.42%	\$194.26
	Total Direct Costs	\$29,832,770	\$8,325,616	\$25,741,881	434,044	\$60,125,498	\$124,025,766	73.09%	\$293.21
Indirect Cos	ste:								
99.1100	Engineering Costs (With G&A)	\$0	\$0	\$2,460,000	60,000	\$3,655,560	\$6,115,560	3.60%	\$14.46
99.1200	Construction Management (With G&A)	\$0 \$0	\$2,097,599	\$4,460,812	99,672	\$4,212,356	\$10,770,767	6.35%	\$25.46
99.1500	Project Insurance	\$0	\$0	\$0	0	\$2,248,969	\$2,248,969	1.33%	\$5.32
99.1600	Performance Bond	\$0	\$0 \$0	\$0	0	\$963,844	\$963,844	0.57%	\$2.28
99.1900	Sale Tax 6% of Indirect materials and services	\$0	\$47,732	\$0	0	\$0	\$47,732	0.03%	\$0.1
99.2500	Project Contingency @ 10%	\$0	\$0	\$0	0	\$14,417,264	\$14,417,264	8.50%	\$34.08
99.2600	EPC profit	\$0	\$0	\$0	0	\$11,101,000	\$11,101,000	6.54%	\$26.24
	Total Indirect Costs	\$0	\$2,145,331	\$6,920,812	159,672	\$36,598,992	\$45,665,135	26.91%	\$107.96
	Total Overnight (Mar. 2011) EPC Capital Costs:	\$29,832,770	\$10,470,948	\$32,662,693	593,716	\$96,724,490	\$169,690,901	100.00%	\$401.1

B&V PROJECT #: 168908
PROJECT ESTIMATOR: Ron Fields
PROJECT MANAGER: Tim Hillman
PURPOSE OF ESTIMATE: Budgetary
ESTIMATE DATE: March-11

LOCATION:
PLANT TYPE:
CLIENT:
PARTNER:

Jefferson County, KY PC Fired Boiler LG&E - KU N/A US Dollars

BLACK AND VEATCH CONFIDENTIAL AND PROPRIETARY INFORMATION

		PROJECT - TOTAL COSTS							
Contract		Engr Equip Commodities						% OF	\$ PER
Number	Description							TOTAL C.V.	KW
		Material \$	Material \$	Labor \$	Manhours	Other	TOTAL \$		423
'ivil / Struc	tural Purchase Contracts:								
31.0300	Grating	\$0	\$3,450	\$0	0	\$0	\$3,450	0.00%	\$0.01
51.0810	Embeds and Anchor Bolts	\$0	\$55,755	\$0	0	\$0 \$0	\$55,755	0.03%	\$0.13
31.3601	Chain Link Fence	\$0	\$10,000	\$0 \$0	0	\$100,000	\$110,000	0.06%	\$0.13
51.3801	Ductwork and Breeching	\$1,982,800	\$10,000	\$0 \$0	0	\$600,000	\$2,582,800	1.52%	\$6.11
61.4001	Structural Steel	\$1,172,200	\$0 \$0	\$0 \$0	0	\$884,736	\$2,056,936	1.21%	\$4.86
61.4001 61.4015	Handrail and stairs	\$1,172,200	\$33,300	\$0 \$0	0	\$664,736 \$0	\$33,300	0.02%	\$0.08
71.4013	Handran and Stairs	ΦΟ	φ33,300	ΨΟ	0	ΨΟ	φ33,300	0.02 /6	Ψ0.00
	Subtotal - Civil / Structural Purchase Contracts:	\$3,155,000	\$102,505	\$0	0	\$1,584,736	\$4,842,241	2.85%	\$11.45
/lechanical	Purchase Contracts:	\$0	\$0	\$0	0	\$0			
32.0205	Continuous Emissions Monitoring (CEM)	\$0	\$0	\$0	0	\$50,000	\$50,000	0.03%	\$0.12
67.0414	Fly Ash Tranfer System	\$0	\$0	\$0	0	\$5,000,000	\$5,000,000	2.95%	\$11.82
67.9300	Compressors and Air Dryers	\$250,000	\$0	\$0	0	\$0	\$250,000	0.15%	\$0.59
67.9532	ID Booster Fans	\$1,948,000	\$0 \$0	\$0	0	\$0 \$0	\$1,948,000	1.15%	\$4.61
6.1000	Piping and Tubing	\$315,018	\$0 \$0	\$0 \$0	0	\$100,000	\$415,018	0.24%	\$0.98
			•		0		\$232,000		
66.3000	Valves	\$0 \$0	\$232,000	\$0 \$0	0	\$0 \$0		0.14%	\$0.55
6.2070	Piping supports	\$0	\$79,250	\$0	U	\$0	\$79,250	0.05%	\$0.19
	Subtotal - Mechanical Purchase Contracts:	\$2,513,018	\$311,250	\$0	\$0	\$5,150,000	\$7,974,268	4.70%	\$18.85
Electrical P	urchase Contracts:	\$0	\$0	\$0	0	\$0			
63.0000	Electrical Equipment & Materials	\$0	\$1,400	\$0	0	\$0	\$1,400	0.00%	\$0.00
63.0500	Lightning Protection Equipment and Materials	\$0	\$2,220	\$0 \$0	0	\$0 \$0	\$2,220	0.00%	\$0.00
63.0601	Plant Communication System	\$0	\$300,000	\$0 \$0	0			0.18%	\$0.01
		· ·	. ,		0	\$0 \$0	\$300,000		
63.0802	Cable and Raceway	\$0	\$500,000	\$0	-	\$0	\$500,000	0.29%	\$1.18
63.1001	Welding System	\$0	\$7,500	\$0	0	\$0	\$7,500	0.00%	\$0.02
63.1201	Iso-Phase Bus Duct	\$230,000	\$0	\$0	0	\$0	\$230,000	0.14%	\$0.54
63.1202	Cable Bus	\$0	\$3,228,200	\$0	0	\$10,800	\$3,239,000	1.91%	\$7.66
63.2000	Metering & Relaying	\$60,000	\$0	\$0	0	\$0	\$60,000	0.04%	\$0.14
63.2800	UPS System	\$0	\$221,375	\$0	0	\$0	\$221,375	0.13%	\$0.52
63.2805	PanelBoards	\$0	\$30,000	\$0	0	\$0	\$30,000	0.02%	\$0.07
63.3002	VFDs, Motors and couplings	\$2,938,000	\$0	\$0	0	\$0	\$2,938,000	1.73%	\$6.95
63.3603	Low Voltage Switchgear	\$1,509,000	\$0	\$0	0	\$0	\$1,509,000	0.89%	\$3.57
63.3802	SUS Transformers	\$239,752	\$0	\$0	0	\$0	\$239,752	0.14%	\$0.57
63.3803	Aux Misc. Transformers	\$562,000	\$0	\$0	0	\$0	\$562,000	0.33%	\$1.33
63.5010	Grounding Materials and Equipment	\$0	\$225	\$0	0	\$0	\$225	0.00%	\$0.00
	Subtotal - Electrical Purchase Contracts:	\$5,538,752	\$4,290,920	\$0	0	\$10,800	\$9,840,472	5.80%	\$23.26
Control Pur	chase Contracts:	\$0	\$0	\$0	0	\$0			
64.0202	DCS / PLC mods	\$576,000	\$0 \$0	\$0 \$0	0	\$0 \$0	\$576,000	0.34%	\$1.36
64.0407	On-line Performance Monitoring - Neural Network	\$370,000	\$0 \$0	\$0 \$0	0	\$570,000	\$570,000	0.34%	\$1.35
64.1003	Instrumentation	\$50,000	\$0 \$0	\$0 \$0	0	\$370,000	\$50,000	0.03%	\$0.12
	Subtotal - Control Purchase Contracts:								
	Subtotal - Control Purchase Contracts:	\$626,000	\$0	\$0	0	\$570,000	\$1,196,000	0.70%	\$2.83
	urchase Contracts:	\$0	\$0	\$0	0	\$0			
65.3210	Sorbent Injection	\$2,000,000	\$0	\$0	0	\$0	\$2,000,000	1.18%	\$4.73
65.3120	Fabric Filter	\$15,000,000	\$0	\$0	0	\$0	\$15,000,000	8.84%	\$35.46
65.3500	H - PAC Injection system	\$1,000,000	\$0	\$0	0	\$0	\$1,000,000	0.59%	\$2.36
	Subtotal - Chemical Purchase Contracts:	\$18,000,000	\$0	\$0	0	\$0	\$18,000,000	10.61%	\$42.55
	Subtotal Purchase Contracts:	\$29,832,770	\$4,704,675	\$0	0	\$7,315,536	\$41,852,981	24.66%	\$98.94

B&V PROJECT #: 168908
PROJECT ESTIMATOR: Ron Fields
PROJECT MANAGER: Tim Hillman
PURPOSE OF ESTIMATE: Budgetary
ESTIMATE DATE: March-11

LOCATION:
PLANT TYPE:
CLIENT:
PARTNER:
CURRENCY:

Jefferson County, KY PC Fired Boiler LG&E - KU N/A US Dollars

CURRENCY: BLACK AND VEATCH CONFIDENTIAL AND PROPRIETARY INFORMATION

				PROJECT - T	OTAL COSTS				
Contract		Engr Equip	Commodities	TROJECT - I	01AE 00010			% OF	\$ PER
Number	Description	94						TOTAL C.V.	KW
	·	Material \$	Material \$	Labor \$	Manhours	Other	TOTAL \$		423
Civil / Struc	tural Construction Contracts:	\$0	\$0	\$0	0	\$0			
71.0100	Demolition Works	\$0	\$0	\$32,838	640	\$1,350,000	\$1,382,838	0.81%	\$3.27
71.0401	Cast In place Piling	\$0	\$0	\$0	0	\$1,428,000	\$1,428,000		\$3.38
71.0402	General Construction - Substructures	\$0	\$494,216	\$1,901,835	33,594	\$173,027	\$2,569,078		\$6.07
71.0403	General Construction - Superstructures	\$0	\$0	\$1,892,750	27,348	\$2,990,000	\$4,882,750	2.88%	\$11.54
							•		
	Subtotal - Civil / Structural Construction Contracts:	\$0	\$494,216	\$3,827,423	61,582	\$5,941,027	\$10,262,666	6.05%	\$24.26
Mechanical	Construction Contracts:	\$0	\$0	\$0	0	\$0			
72.0401	Plant Piping Installation	\$0	\$0	\$2,179,588	34,580	\$0	\$2,179,588	1.28%	\$5.15
72.0403	Piping & Equipment Insulation	\$0	\$0	\$0	0	\$2,006,000	\$2,006,000	1.18%	\$4.74
72.0800	Fire Protection & Detection Systems	\$0	\$0	\$0	0	\$1,235,600	\$1,235,600	0.73%	\$2.92
75.3200	Mechanical - Scurbber Refurbishment	\$0	\$0	\$0	0	\$32,944,117	\$32,944,117	19.41%	\$77.88
77.0000	Mechanical Construction	\$0	\$0	\$10,572,786	172,899	\$0	\$10,572,786	6.23%	\$24.99
	Subtotal - Mechanical Construction Contracts:	\$0	\$0	\$12,752,375	\$207,479	\$36,185,717	\$48,938,092	20 040/	\$115.69
	Subtotal - Mechanical Construction Contracts:	\$0	\$0	\$12,752,375	\$207,479	\$30,103, <i>1</i> 11	\$40,930,092	20.04%	\$115.09
Electrical /	Control Construction Contracts:	\$0	\$0	\$0	0	\$0			
73.0201	Electrical Equipment Erection	\$0	\$182,000	\$5,604,278	89,697	\$10,800	\$5,797,078	3.42%	\$13.70
74.0201	Control & Instrumentation Installation	\$0	\$0	\$242,922	3,888	\$0	\$242,922	0.14%	\$0.57
	Subtotal - Electrical / Control Construction Contracts:	\$0	\$182,000	\$5,847,200	93,585	\$10,800	\$6,040,000	0.81% 0.84% 1.51% 2.88% 6.05% 1.28% 1.18% 0.73% 19.41% 6.23% 28.84%	\$14.28
Construction	on Indirects & Service Contracts:	\$0	\$0	\$0	0	\$0			
78.0000	Service Contracts & Construction Indirects	\$0	\$2,944,725	\$3,314,884	71,397	\$10,526,818	\$16,786,427	9.89%	\$39.68
78.4000	Warranty	\$0	\$0	\$0	0	\$145,600	\$145,600	0.09%	\$0.34
	Subtotal - Construction Indirects & Service Contracts:	\$0	\$2,944,725	\$3,314,884	71,397	\$10,672,418	\$16,932,027	9.98%	\$40.03
	Subtotal - Construction Costs:	\$0	\$3,620,941	\$25,741,881	434,044	\$52,809,962	\$82,172,785	48.42%	\$194.26
	Subtotal - Direct Costs:	\$29,832,770	\$8,325,616	\$25,741,881	434,044	\$60,125,498	\$124,025,766	73.09%	\$293.21
Indirect Co	sts:	\$0	\$0	\$0	0	\$0			
99.1100	Engineering Costs (Includes G&A)	\$0 \$0	\$0 \$0	\$2,460,000	60,000	\$3,655,560	\$6,115,560	3 60%	\$14.46
99.1100	EPC Construction Management (Includes G&A)	\$0 \$0	\$2,097,599	\$4,460,812	99,672	\$4,212,356	\$10,770,767		\$25.46
99.1500	Project Insurance	\$0 \$0	\$0	\$0	0	\$2,248,969	\$2,248,969		\$5.32
99.1600	Performance Bond	\$0 \$0	\$0 \$0	\$0 \$0	0	\$963,844	\$963,844		\$2.28
99.1900	Sales Tax 6% of Indirect materials and services	\$0 \$0	\$47,732	\$0 \$0	0	\$0	\$47,732		\$0.11
99.2500	Project Contingency	\$0 \$0	\$0	\$0 \$0	0	\$14,417,264	\$14,417,264		\$34.08
99.2600	EPC profit	\$0	\$0	\$0	0	\$11,101,000	\$11,101,000		\$26.24
	Subtatal Indirect Conto	**	60.445.004	#6.000.040	450.070	#26 F00 000	¢45.005.405	00.040/	6407.00
	Subtotal - Indirect Costs:	\$0	\$2,145,331	\$6,920,812	159,672	\$36,598,992	\$45,665,135	26.91%	\$107.96
	Total Overnight (Mar. 2011) EPC Capital Costs:	\$29,832,770	\$10,470,948	\$32,662,693	593,716	\$96,724,490	\$169,690,901	100.00%	\$401.16