

Exhibit K

APPENDIX B

Detailed Facility and Equipment Data

DETAILED FACILITY AND EQUIPMENT DATA

PART A - GENERAL

1. Drawings. Note drawing requirements identified in Appendices A and B. See proposal subsection 2.15.
2. Mass and Energy Balance Diagrams 03-49-001, See attached Drawings Nos. 03-49-002, 03-49-003 (State location in Proposal).
3. Cycle Heat Balance Diagram
 - A. Maximum Continuous Rating (Turbine VWO 5% OP) See attached Drawing No. 03-49-001 (State location in Proposal).
 - B. Guaranteed Load (GL). See attached Drawing No. 03-49-002 (State location in Proposal).
 - C. Temperature Control Point (CP). See attached Drawing No. 03-49-003 (State location in Proposal).
4. Boiler Operating Firing Diagram, See subsection 2.15 of proposal.
5. Temperature Profile Diagrams (As defined in Paragraph 3.1 of Appendix B).
 - A. Guaranteed Load (GL). See attached Drawing No. P25-0905-3B (State location in Proposal).
 - B. Maximum Continuous Rating (MCR). See attached Drawing No. P25-0905-2B (State location in Proposal).
6. Electrical
 - A. One Line Diagram complete with protective relays and metering. See attached Drawing No. 10-49-001 (State location in Proposal).
7. The Proposer shall acknowledge and certify below that all civil/structural requirements specified in Section 6.0 of Appendix B, TECHNICAL REQUIREMENTS, are included in it's Proposal. Facility design and construction (conforms) (~~does not conform~~) to Paragraph 6.0 of Appendix B. The Proposer shall provide an itemized description of all exceptions taken, if any, to Paragraph 6.0 of Appendix B.
8. Building Data

The Proposer shall provide a brief description of the type of structure and materials of construction, along with approximate building size, for each building or enclosure proposed in the space below.

See Section 2.10, Buildings for description of buildings.

9. Storage and Tipping Area

A.	Tipping area dimensions (length x width x clearance)	Self-unloading Hand-unloading	133' x 142' x 30' <u>50' x 240' x 28'3"</u>
	Length shall be measured from the front edge of the storage pit to the opposite edge of the tipping area.		
B.	Number of vehicle unloading positions	8	<u>Storage Pit</u>
C.	Refuse Storage Pit		
	Elevation of Tipping Floor, ft-in.		<u>25'-0"</u>
	Elevation of Top of Charging Hopper ft-in.		<u>78'-0"</u>
	Elevation of Bottom of Storage Pit, ft-in.		<u>(-)15'-0"</u>
	Length of Storage Pit, ft-in.		<u>142'-0"</u>
	Width of Storage Pit, ft-in. (Measured from inside of front wall to inside of back wall)		<u>50'-0"</u>
	Design Storage Capacity, yd ³		<u>17,487</u>
	Design Storage Capacity, tons		<u>4,900</u>
	Design refuse density used in calculating storage capacity, lb/yd, below tipping floor/above tipping floor		<u>600 / 500</u>
D.	Receiving Pit		
	Length of Receiving Pit, ft-in.		<u>240'-0"</u>
	Width of Receiving Pit, ft-in.		<u>40'-0"</u>
	Depth of Receiving Pit at Emergency Loadout Area, ft-in.		<u>6'-9" below hand unloading area</u>

Depth of Receiving Pit at
Storage Pit Interface, ft-in.

16'-9" below hand
unloading area

10. Architectural Treatment

A description of the materials proposed for the architectural treatment of all structures and a description of the landscaping proposed is included as attached sheets for arch, see Section 2.10 (Rendering shall be provided).

For landscaping,

PART B - COMBUSTION PLANT EQUIPMENT

1. Steam Generating Units

A. Manufacturer	<u>Babcock & Wilcox</u>	
B. Number of Units	<u>2</u>	
C. Furnace Volume, ft ³ (As defined in Paragraph 3.1 of Appendix B)	<u>24,249</u>	
D. Design gross furnace heat release per furnace volume Btuh/ft ³	<u>7,560</u>	
E. Plan area of grate as defined in Paragraph 3.1 of Appendix B.	<u>512.1</u>	
F. Gross heat release per plan area of grate, Btuh/ft ²	<u>358,000</u>	
	<u>GL</u>	<u>MCR</u>
G. Steam and Water Flows, lb/hr		
Superheater outlet steam flow	<u>91,800</u>	<u>110,200</u>
Boiler blowdown water flow	<u>450</u>	<u>550</u>
Economizer inlet feedwater flow	<u>87,500</u>	<u>102,000</u>
H. Steam and Water Pressures, psig		
Superheater outlet steam pressure	<u>900</u>	<u>900</u>
Steam drum pressure	<u>976</u>	<u>1,001</u>
Economizer inlet pressure	<u>1,010</u>	<u>1,046</u>
Pressure drop from steam drum to superheater outlet	<u>76</u>	<u>101</u>
I. Steam and Water Temperatures, F		
Superheater outlet temperature	<u>830</u>	<u>830</u>
Economizer inlet feedwater temperature	<u>300</u>	<u>300</u>
J. Steam Purity		
Average solids content in steam leaving boiler, ppm	<u>1.0</u>	<u>1.0</u>

K.	Flue Gas Flows, lb/h Leaving economizer	<u>260,620</u>	<u>305,570</u>
L.	Average Flue Gas Temperatures, F		
	Superheater (inlet)	<u>1,243</u>	<u>1,331</u>
	Economizer exit	<u>450</u>	<u>480</u>
	Dry scrubber exit	<u>260</u>	<u>260</u>
	Precipitator/baghouse outlet	<u>250</u>	<u>250</u>
	Stack exit	<u>240</u>	<u>240</u>
M.	Average Flue Gas Velocities, ft/sec		
	Through furnace pass	<u>13</u>	<u>16</u>
	Through superheater section	<u>10</u>	<u>12</u>
	Through Boiler section	<u>25</u>	<u>30</u>
	Through economizer	<u>26</u>	<u>30</u>
	Through precipitator/baghouse	<u>3.22</u>	<u>4.00</u>
	Stack exit	<u>63.5</u>	<u>80.8</u>
N.	Air Flows, lb/h		
	Secondary air to furnace	<u>84,770</u>	<u>111,200</u>
	Primary air to furnace	<u>127,150</u>	<u>166,820</u>
	Excess air for fan sizing, %	<u>100</u>	<u>100</u>
O.	Air Pressures, in. H ₂ O		
	FD fan outlet	<u>7.6</u>	<u>13.0</u>
	Pressure drop through grate without refuse load	<u>4.5</u>	<u>7.0</u>
	Secondary fan outlet	<u>13.9</u>	<u>24.0</u>
P.	Air Temperatures, F		
	Design ambient, min.	<u>0</u>	<u>0</u>
	Air temperature to forced draft fan and secondary air fan, F (for boiler performance evaluation)	<u>80</u>	<u>80</u>

Design humidity, % RH	<u>60</u>	<u>60</u>
Primary air heater inlet, F	<u>80</u>	<u>80</u>
Primary air heater outlet, F	<u>80</u>	<u>80</u>
Q. Heat Balance, %		
Excess air leaving economizer (for boiler performance evaluation)	<u>100</u>	<u>100</u>
Dry gas loss	<u>14.0</u>	<u>15.4</u>
Loss due to H ₂ and H ₂ O in fuel	<u>14.04</u>	<u>12.35</u>
Loss due to H ₂ O in air	<u>0.32</u>	<u>0.35</u>
Loss due to unburned combustibles	<u>3.0</u>	<u>1.79</u>
Radiation loss	<u>0.4</u>	<u>0.4</u>
Unaccounted for and manufacturer's margin	<u>1.30</u>	<u>1.10</u>
Total losses	<u>33.06</u>	<u>31.39</u>
Efficiency	<u>66.94</u>	<u>68.61</u>
R. Ash Deposition		
Fraction of ash leaving boiler with flue gas including ash collected in boiler fly ash hoppers, %	<u>19.3</u>	<u>33.8</u>
Fraction of ash leaving boiler as bottom ash and siftings, %	<u>80.7</u>	<u>66.2</u>
Total quantity of ash (including bottom ash, siftings, and flyash), lb/hr	<u>15,421</u>	<u>13,990</u>
Typical size of particulate in flue gas, %	<u>-</u>	<u>-</u>
0-5 microns	<u>36</u>	<u>36</u>
5-10 microns	<u>10</u>	<u>10</u>
10-20 microns	<u>10</u>	<u>10</u>
larger than 20 microns	<u>44</u>	<u>44</u>

S. Emission Factors in lb/ton of Acceptable Waste

The Company shall guarantee for the following pollutants emission rates at or below the rates listed in Appendix B. Anticipated emission rates for criteria pollutants shall be listed below:

*See Footnotes on Proposal Form 16, Section 4

	Average (A)	Max ⁽¹⁾
Particulate Matter (solid and condensable) (F)	<u>0.15</u>	0.02 gr/dscf
Sulfur Dioxide	<u>45</u>	50 ppm
Nitrogen Dioxide	<u>300</u>	300 ppm(B)
Carbon Monoxide (4-day average)	<u>60</u>	100 ppm
Carbon Monoxide (8-hour average)	<u>60</u>	400 ppm
Total Hydrocarbons as CH ₄ (Gaseous Non-Methane)	<u>2</u>	3 ppm ^(B)
Lead	<u>3 E-4</u>	0.001 gr/dscf
Opacity of Stack	<u>5</u>	10%(3)
Chlorides	<u>30</u>	50 ppm
Tetra-hepta chlorinated isomers (G)	<u>100</u>	200 ng/dscm

The following elements and compounds have been detected in emissions from resource recovery facilities. The Company shall provide information on emissions of such substances from the proposed Facility based on Acceptable Waste and the best information available.

	LB/MMBTU ^(A)	
Arsenic	<u>8.5 E-6</u>	_____
Asbestos	<u>(C)</u>	_____
Beryllium	<u>4.2 E-8</u>	_____
Cadmium	<u>3.8 E-5</u>	_____
Chromium	<u>5.1 E-5^(E)</u>	_____
Copper	<u>6.8 E-5</u>	_____
Manganese	<u>2.5 E-5</u>	_____
Nickel	<u>2.5 E-5^(E)</u>	_____
Selenium	<u>2.1 E-6^(E)</u>	_____

Sulfuric Acid Mist	<u>7.5 E-3</u>	<u>(E)</u>
Reduced Sulfur	<u>(D)</u>	<u></u>
Tin	<u>4.2 E-4</u>	<u>(E)</u>
Vanadium	<u>1.7 E-6</u>	<u></u>
Vinyl Chloride	<u>1.1 E-6</u>	<u>(E)</u>
Zinc	<u>2.79 E-3</u>	<u></u>
PAH	<u>4.4 E-6</u>	<u>(E)</u>
PCB	<u>1.2 E-7</u>	<u>(E)</u>
T. Ash/Residue		
Bottom ash and residue, lb/hr (dry)	<u>12,652</u>	<u>9,456</u>
Fly ash, lb/hr (dry)	<u>2,769</u>	<u>4,534</u>
Percent moisture of bottom ash to landfill	<u>18.4</u>	<u>18</u>
U. Boiler Data		
Inside diameter of Steam/Mud drum, in.	<u>60/NA</u>	<u></u>
Boiler section heat transfer surface area, ft ²	<u>16,455</u>	<u></u>
Boiler tube diam/wall thickness, in.	<u>20/0.018</u>	<u></u>
Boiler tube clear side spacing, in.	<u>4.0</u>	<u></u>
Waterwall tube diam/wall thickness, in.	<u>2.5/0.203</u>	<u></u>
Total Furnace water surface (inside furnace volume as defined in Paragraph 3.1 of Appendix) including screen sections in furnace passes	<u>5,473</u>	<u></u>
Steam drum design pressure, (psig)	<u>1,075</u>	<u></u>
V. Superheater Data		
Design pressure, psig	<u>1,075</u>	<u></u>
Total superheater surface, ft ²	<u>15,636</u>	<u></u>

	Superheater tube diam/wall thickness, in.	<u>2.5 / 0.203 & 0.18</u>
	Superheater tube clear side spacing, in.	<u>3.5</u>
	Superheater pressure drop at VWO and over pressure flow, psi	<u>101</u>
	Superheater arranged for parallel flow (yes/no)	<u>No</u>
W.	Economizer Data	
	Type of economizer	<u>Continuous Bare Tube</u>
	Design pressure, psig	<u>1,125</u>
	Effective heating surface, ft ²	<u>11,812</u>
	Tube diam/wall thickness, in.	<u>2.0/0.18</u>
	Economizer tube clear side spacing, in.	<u>2.0</u>
X.	Main steam line pressure drop at VWO and over pressure flow, psi (excluding boiler stop check valve)	<u>50</u>
Y.	Boiler stop check valve pressure drop at VWO and over pressure flow, psi	<u>10</u>
2.	<u>Refuse Handling Cranes</u>	
A.	Manufacturer	<u>P & H or equal</u>
B.	Quantity	<u>2</u>
C.	Crane Capacity (Tons)	<u>9</u>
D.	Grapple Size, yd ³	<u>6</u>
E.	Crane design handling rate, TPH	<u>in excess of 50</u>
F.	Speeds at full load	
	1. Hoist, ft/min	<u>250</u>
	2. Bridge travel, ft/min	<u>250</u>
	3. Trolley travel, ft/min	<u>175</u>

4. Maximum hoist lift, ft	98"-0"		
5. Controls, type	AC, Static-Stepless		
G. CMAA Rating	Class F		
3. <u>Refuse Hoppers and Feed Chutes</u>			
A. Manufacturer	Von Roll or equal		
B. Hopper Capacity, tons	20 (Nominal)		
C. Feed Chute	4'-6" x 13'-4"		
Size of largest item which will pass through chute, LxWxH, ft	3'-0" x 3'-0" x 6'-0"		
Chute cooling system	water cooled		
4. <u>Refuse Feeders</u>			
A. Manufacturer, Type	Von Roll		
B. Capacity, Tons/hr, Maximum	19.2		
5. <u>Stokers and Grates</u>			
A. Type and Manufacturer	Von Roll		
B. Grate Material (ASTM)	ASTM N/A (Hi Chrome)		
6. <u>Fans</u>			
A. Manufacturer	TLT	Babcock	
B. Type of blades	CB1	CB1	Air Foil
C. Net Operation Requirements:			
Capacity, cfm	29078	19385	90526
Gas/Air Temperature, °F	80	80	230
Static pressure, in H ₂ O	8.4	14.82	8.0
Efficiency, %	57.1	49.3	41.5
Power to fan coupling, hp	68.0	92	293
D. Test Block Requirements:			
Capacity, lb/hr, (cfm)	44500	31790	121426
Gas/Air Temperature, °F	95	95	280

Static Pressure, in H ₂ O	<u>19.08</u>	<u>33.66</u>	<u>14.40</u>
Efficiency, %	<u>85.8</u>	<u>85.3</u>	<u>78.5</u>
Power to fan coupling, hp	<u>157</u>	<u>198</u>	<u>368</u>
E. Motor Data:			
Manufacturer	<u>GE</u>	<u>GE</u>	<u>GE</u>
Motor Size, hp	<u>200</u>	<u>200</u>	<u>400</u>
Enclosure Type	<u>TEFC</u>	<u>TEFC</u>	<u>TEFC</u>
Service Factor	<u>1.0</u>	<u>1.0</u>	<u>1.0</u>
Volts/phase/Hz	<u>480/3/60</u>	<u>480/3/60</u>	<u>4160/3/60</u>
F. Bearing Arrangement	<u>Outboard</u>	<u>Outboard</u>	<u>Outboard</u>
G. Operating speed, rpm	<u>1800</u>	<u>1800</u>	<u>900</u>
7. <u>Air Preheaters</u>			
A. Manufacturer	<u>ERI</u>		
B. Duty, Btu/Hr	<u>11,880,000</u>		
C. Design Conditions			
Inlet air temperature, °F	<u>-20°F</u>		
Outlet air temperature, °F	<u>+250°F</u>		
8. <u>Electrostatic Precipitator</u>			
A. Manufacturer:	<u>WAPC</u>		
B. Flue Gas Data (Per Unit):			
1. Maximum Flow, ACFM	<u>115,500</u>		
2. Maximum Velocity, FPS	<u>4</u>		
3. Maximum Temperature, °F	<u>500</u>		
C. Particulate Emissions at Stack Exit			
	<u>Removal Efficiency</u>	<u>Inlet Loading @ 7% O₂</u>	<u>Outlet Loading @ 7% O₂</u>
With Reference Waste:	<u>99.26%</u>	<u>2.72 gr/dscf</u>	<u>.02 gr/dscf</u>

D.	Aspect Ratio (Effective length divided by effective height)	1.5
E.	Number of Fields	4 mechanical, 3 electrical
F.	Gas treatment time, sec.	9 sec @ maximum flow
G.	Specific Collection Area (SCA), ft ² /1000 acfm	360 @ maximum flow
H.	Insulation	
	1. Materials	Fiberglass Board
	2. Thickness, in.	4
	3. Cladding	Aluminum Surfaced

9. Baghouses

A.	Type (Pulse jet or Reverse Air)	N/A
B.	Manufacturer	N/A
C.	Flue Gas Data (Per Unit)	
	1. Maximum Flow, ACFM	N/A
	2. Maximum Temperature, °F	N/A
	3. Air-to-Cloth Ratio net-net	N/A
	gross	N/A
	4. Number of Compartments	N/A
D.	Particulates Removal Efficiency	
	1. Efficiency, %	N/A
	2. Inlet loading at 7% O ₂ , gr/dscf	N/A
	3. Outlet loading at 7% O ₂ , gr/dscf	N/A
E.	Bag Material	N/A
F.	Insulation	
	1. Materials	N/A
	2. Thickness, in.	N/A

3.	Cladding	N/A
10.	<u>Dry Acid Gas Scrubbing Equipment</u>	
A.	Number of Units	2
B.	Manufacturer	<u>Wheelabrator Air Pollution Control</u>
C.	Flue Gas Data (per unit)	
1.	Maximum Flow, ACFM	118,000
2.	Maximum Temperature, F	500
3.	Maximum Outlet Temperature, F	500
4.	Minimum Outlet Temperature, F	250-260
5.	Average Outlet Temperature, F	270
D.	Removal Efficiencies	
1.	HCl	
a.	Efficiency, %	95
b.	Inlet Concentration at 7% O ₂ PPMOV	833
c.	Outlet Concentration at 7% O ₂ PPMOV	Less than 50
2.	SO ₂	
a.	Efficiency, %	80
b.	Inlet Concentration at 7% O ₂ PPMOV	262
c.	Outlet Concentration at 7% O ₂ PPMOV	50
E.	Chemical Used for Neutralization	Lime Slurry (OH)
F.	Average Neutralization Chemical Use (per unit), lbs/hr	346 lb. lime
G.	Average Water Use (per unit), GPM	20
H.	Atomization System	
1.	Type	two fluid nozzles
2.	Manufacturer	turbotac

I. Control and Instrumentation

Not measured
removal of 65% of SO₂ will remove
95% of HCl

1. HCl

2. SO₂

3. Outlet Temperature

Lime Slurry flow controlled by ESP
outlet temperature.
SDA outlet temperature controls
dilution water flow.

11. Ash Handling System

A. Bottom Ash System

1. Manufacturer

Ash Dischargers: Babcock & Wilcox
Conveyors: Kinematles/Young & Vann or equal

2. Type

Wet Ram Ash Expellers

3. Capacity, tons/hr

in excess of 15

4. Ash Storage Dimensions, *
(LxWxD from
bottom ash inlet point)

Ash: 90' x 28' x 15'
Metal: 90' x 30' x 15'

5. Design density of ash
for storage/structural
design, lb/ft³

Metal: 30 / 120
Ash: 70 / 120

6. Size of largest item
passable through system,
LxWxH, ft

3' x 3' x 6'

B. Fly Ash System

1. Manufacturer

Screw Conveyors: Thomas or equal
Drag Conveyors: Astech or equal

2. Type

Mechanical

3. Capacity, tons/hr

1 ton/hr per boiler

12. Stack

A. Manufacturer

Pullman Power

B. Dia. of Flues

5'-6"

C. Flue Material

Acid Resisting Brick

D. Height, ft

170

13. Soot Removal System

A. Manufacturer

Diamond

B. Type

Superheater & Generating Bank: Mechanical Rapped
Economizer: Type 69B Steam Soot Blowers

* 3 days storage provided for ash and metal

PART C - BALANCE OF PLANT SYSTEMS

1. Turbine-Generator

A. Manufacturer, Model	<u>GE</u>
B. Heat Balances	
MCR steam flow VWO 5% op, 2.0 in HgA exhaust	HB No. <u>03-49-001</u>
GL steam flow, normal throttle pressure and temperature, 2 in HgA exhaust	HB No. <u>03-49-002</u>
CP steam flow, normal throttle pressure and temperature, 2 in HgA exhaust	HB No. <u>03-49-003</u>
C. Nameplate Capacity, Mw	<u>26</u>
D. Throttle Flow at Nameplate Capacity, lbs/hr	<u>224,000</u>
E. VWO and Over Pressure Flow, lb/hr	<u>224,000</u>
F. Throttle Steam Pressure, psig	<u>850</u>
G. Maximum Throttle Steam Pressure, psig	<u>900</u>
H. Throttle Steam Temperature, F	<u>825</u>
I. Turbine Exhaust Pressure at 64F WB ambient, in. Hg abs	<u>2.0</u>
J. Governing System Type	<u>EHC</u>
K. Turbine Speed, RPM	<u>3,600</u>

2. Condenser

A. Manufacturer	<u>Graham or equal</u>
B. Operating pressure at 64F WB ambient, in. Hg abs	<u>2.0</u>
C. Design steam flow, lb/hr	<u>179,300</u>
D. Design cooling water flow, gpm	<u>16,204</u>
E. Design duty, MBtu/hr	<u>162,000</u>

F.	Design cooling water inlet temperature, F	<u>76</u>
G.	Design cooling water outlet temperature, F	<u>96</u>
H.	Cooling water velocity, ft/s	<u>7.0</u>
I.	Tube material	<u>B-111-443</u>
3.	<u>Dump Condenser</u>	
A.	Manufacturer	<u>Manning & Lewis</u>
B.	Operating pressure, psia	<u>914.7</u>
C.	Design steam flow, lb/hr	<u>263,600</u>
D.	Design cooling water flow, gpm	<u>11,200</u>
E.	Design duty, MBtu/hr	<u>322,000</u>
F.	Design cooling water inlet temperature, F	<u>76</u>
G.	Design cooling water outlet temperature, F	<u>137</u>
H.	Cooling water velocity, ft/s	<u>7.93</u>
I.	Tube material	<u>CS</u>
4.	<u>Boiler Feed Pumps</u>	
A.	Manufacturer	<u>IR or equal</u>
B.	Quantity	<u>3</u>
C.	Design capacity, gpm	<u>2 @ 272 gpm; 1 @ 544 gpm</u>
D.	Design total dynamic head, ft	<u>3250</u>
E.	Drive horsepower, hp	<u>2 @ 300 HP; 1 @ 600 HP</u>
F.	NPSHR	<u>Later</u>
5.	<u>Condensate Pumps</u>	
A.	Manufacturer	<u>Bingham</u>
B.	Quantity	<u>2</u>
C.	Design capacity, gpm	<u>500</u>

D.	Design total dynamic head, ft			<u>455</u>	
E.	Motor horsepower, hp			<u>100</u>	
6.	<u>Circulating Water Pumps</u>				
A.	Manufacturer			<u>Goulds</u>	
B.	Quantity			<u>3</u>	
C.	Design capacity, gpm			<u>9,000</u>	
D.	Design total dynamic head, ft			<u>70</u>	
E.	Motor horsepower, hp			<u>250</u>	
7.	<u>Auxiliary Cooling Water Pumps (Bearing Cooling Water Pumps)</u>				
A.	Manufacturer			<u>Goulds</u>	
B.	Quantity			<u>2</u>	
C.	Design capacity, gpm			<u>1,400</u>	
D.	Design total dynamic head, ft			<u>80</u>	
E.	Motor horsepower, hp			<u>50</u>	
8.	<u>Miscellaneous Pumps</u>				
A.	Service	<u>City Water</u>	<u>Demin.</u>		
		<u>Booster</u>	<u>Water</u>		
B.	Manufacturer, Model	<u>3,196</u>	<u>3,196</u>		<u>(Goulds)</u>
C.	Quantity	<u>2</u>	<u>2</u>		
D.	Design capacity, gpm	<u>300</u>	<u>200</u>		
E.	Design total dynamic head, ft	<u>140</u>	<u>330</u>		
F.	Motor horsepower, hp	<u>25</u>	<u>40</u>		
9.	<u>Air Compressors</u>				
A.	Manufacturer type			<u>Atlas Copco</u>	
B.	Quantity			<u>2 @ 1800 SCFM each</u>	
				<u>1 @ 650 SCFM</u>	
C.	Operating/design pressure, psig			<u>100</u>	
D.	Air Dryer, Manufacturer, Model			<u>Anderson or equal</u>	

E.	Receiver, pressure/capacity	125	psig/	Instr. Air	85	ft ³
				Process Air	148	ft ³
F.	System air flow requirements, SCFM			Instr. Air	650	
				Process Air	1,800	
G.	Air Compressor design airflow, SCFM			Instr. Air	1 @ 650	
				Process Air	2 @ 1,800	
10.	<u>Heat Exchangers</u>					
A.	Manufacturer	<u>M & L</u>				
B.	Service	<u>Blowdown</u>				
C.	Type, Tube Mat'l	<u>Shell & Tube</u> <u>CS</u>				
11.	<u>Makeup Water Treatment/Demineralizer</u>					
A.	Manufacturer	<u>GLEGG</u>				
B.	Type	<u>Strong Acid/Strong Base</u> <u>2 trains @</u>				
C.	Design flow rate, gpm/gpd	<u>65/train</u> / <u>93,600/train</u>				
12.	<u>Deaerating Feedwater Heater and Storage Tank</u>					
A.	Manufacturer	<u>Chicago</u>				
B.	Tray material (if used)	<u>430 SS</u>				
C.	Storage tank capacity, gallons	<u>5,000</u>				
D.	Outlet capacity, lbs/hr	<u>250,000</u>				
E.	Oxygen content of water, cc/L	<u>0.005</u>				
F.	Operating pressure, psig	<u>52</u>				
13.	<u>Feedwater Heaters</u>					
A.	Manufacturer	<u>Bos-Hatten</u>				
B.	Quantity	<u>2</u>				
C.	Heater terminal temperature difference, F	<u>5</u>				
D.	Heater drain cooler approach, F	<u>10</u>				
E.	Tube material/type/no. passes	<u>SB-395 / NEU / 2</u>				

14. Cooling Tower

A. Manufacturer	<u>Lille-Hoffman</u>	
B. Quantity, no. cells each	<u>2</u>	
C. Cooling water flow, gpm	<u>17,500</u>	
D. Design ambient wet bulb temperature, F	<u>64</u>	
E. Design range, F	<u>20</u>	
F. Design approach, F	<u>12</u>	
G. Drift loss, %	<u>0.02</u>	
H. Dimensions of tower, LxWxH, Ft.	<u>96 x 40 x 31.5 (wet section)</u>	
I. Height of Fan deck above grade, Ft.	<u>22.5</u>	
J. Height of Fan stack above deck, Ft.	<u>9</u>	
K. Cell dimensions, LxWxH, Ft.	<u>48 x 40 x 31.5</u>	
L. Diameter of disch stack, Ft.-in.	<u>28'-4"</u>	
M. Total air flow through tower, scfm	<u>1,205,050/cell</u>	
N. Design Factors	Summer	Winter
1. KAV/L wet section	<u>1.614</u>	<u>0.138</u>
2. KAV/L (equiv.) dry section	<u>0</u>	<u>0.31</u>
3. L/G	<u>1.137</u>	<u>2.147</u>
O. Materials of construction		
Sidewalls	<u>Fire Retardant Fiberglass</u>	
Fill/mist eliminators	<u>PVC</u>	

P. Describe method of plume abatement and associated control system.

The cooling tower consists of two independent sections, a wet section and a dry section. Water can be directed through either the wet section, the dry section or a combination of the two. The mixing of the air streams leaving the two sections is the method for plume abatement. The amount of air flowing through each section is controlled by varying the fan speeds. Water flow to each section is set by manual valves.

15. Tanks, Demineralized Water and Condensate Storage

A. Manufacturer	<u>Welk Bros Metal or equal</u>	<u>Welk Bros Metal or equal</u>
B. Service	<u>Demineralized Water</u>	<u>Misc. Condensate Storage</u>
C. Size, gal	<u>24,000</u>	<u>3,000</u>
D. Material	<u>Lined Steel</u>	<u>CS</u>

16. Tanks, Other

A. Manufacturer	<u>Welk Bros Metal or equal</u>	<u>Welk Bros Metal or equal</u>
B. Service	<u>Wastewater Storage</u>	<u>Demin. Regenerant Neutralization</u>
C. Design pressure, temperature	<u>ATM/110°F</u>	<u>ATM/110°F</u>
D. Size, gallons	<u>200,000</u>	<u>18,000</u>
E. Material	<u>Lined Steel</u>	<u>Lined Steel</u>

17. Vehicle Scales

A. Manufacturer	<u>Fairbanks or equal</u>
B. Quantity	<u>4</u>
C. Length of each scale, ft	<u>70</u>
D. Capacity, tons	<u>60</u>

18. Turbine Room Crane

A. Hoist ratings	
Main hoist rating, tons	<u>15</u>
Auxiliary hoist rating, tons	<u>N/A</u>
B. Maximum hoist lift, ft	<u>45</u>
C. Controls, type	<u>AC, Stepped</u>
D. CMAA rating	<u>A</u>

19. Miscellaneous Hoists and Cranes

A. Manufacturer	<u>Yale or equal</u>
B. Location	<u>Refuse Pit</u>
C. Type and function	<u>Service Hoist for Crane</u>
D. Capacity, tons	<u>6</u>

20. Elevator(s)

A. Manufacturer, Model	<u>(future)</u>
B. Location	<u>boiler bldg</u>
C. Type and function	<u>Passenger/Freight</u>
D. Capacities, tons	<u>2½</u>

21. Fire Protection

A. Subcontractor	<u>Grinnell Co, Viking Automatic or equal</u>
------------------	---

B.	<u>Building/Area</u>	<u>Type/Description</u>
	<u>See Section 2.12.2</u>	<u>for description of Exterior Fire Protection</u>
	<u>See Section 2.12.3</u>	<u>for description of Interior Fire Protection</u>

22. Heating and Ventilation

<u>Building/Area</u>	<u>Capacity, Cfm/MBtu/hr</u>	<u>Description</u>
<u>Boiler (below El.42)</u>	<u>60,000/4MM</u>	<u>Gas Fired Make-Up</u>
<u>Boiler (above El.42)</u>	<u>220,000/ -</u>	<u>Roof Exhaust Only Gas Make-Up, Roof Exhaust, Primary and Secondary</u>
<u>Turbine</u>	<u>40,000/26MM</u>	<u>Fan Suctions Gas Make-Up, Exhaust Fans</u>
<u>Reception Area</u>	<u>97,000/ -</u>	<u>Roof Top Air Cooled</u>
<u>Air Pollution Enclosure</u>	<u>100,000/1.8</u>	
<u>Administration Building</u>	<u>20 tons A/C</u>	

23. Mobile Equipment

<u>Mfr/Model</u>	<u>No./Type</u>	<u>Description/Function</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

PART D - ELECTRICAL AND INSTRUMENTATION AND CONTROL DATA

1. Generator

A. Manufacturer, Model	<u>GE or equal, air cooled</u>
B. Capacity, Mw	<u>26</u>
C. Power Factor	<u>0.9</u>
D. Voltage	<u>13,800</u>
E. Speed, RPM	<u>3,600</u>
F. Frequency/Short Circuit Ratio	<u>60/0.58</u>
G. Insulation Class	<u>F</u>

- H. Overspeed Limitation 110%
- I. No. Terminal Leads 3
- J. Type Fire Protection CO₂

K. Exciter Type, Voltage Controls,

Describe Brushless Excitation with voltage regulator and con
in remote operator's panel

L. Generator Protective Relays (Type, Manufacturer, and Model) Relays as shown on Dwg.
No. 10-49-002. Westinghouse
equal. Type & Model varies
device function.

2. Transformers

- | | | |
|--|---|---------------------|
| | <u>5 kV</u> | <u>480 V</u> |
| A. Service | <u>4160V MCC</u> | <u>480V MCC</u> |
| B. Manufacturer | <u>McGraw</u> | <u>McGraw</u> |
| C. Type, KVA Rating | <u>Edison or equal</u> | <u>Edison or</u> |
| D. Voltage, No. Phases | <u>outdoor</u> | <u>outdoor</u> |
| E. Taps | <u>2,500</u> | <u>2,500</u> |
| F. Impedance | <u>13.8-4.16KV/3</u> | <u>13.8-0.48 K</u> |
| G. Protective Relays (Type, Manufacturer, Model) | <u>H.V. No Load</u> | <u>±2 H.V. No L</u> |
| | <u>+2 - 2½%</u> | <u>±2 - 2½%</u> |
| | <u>5.5%</u> | <u>5.75%</u> |
| | <u>Phase-Westinghouse CO-9 or equal</u> | |
| | <u>Ground-Westinghouse ITH or equal</u> | |

3. Metal-Clad Switchgear

- | | | | |
|------------------------------|---------------------|-----------------------|---------------------|
| | <u>15 kV</u> | <u>5 kV</u> | <u>480 V</u> |
| A. Manufacturer | <u>Westinghouse</u> | <u>Westinghouse</u> | <u>Westinghouse</u> |
| B. Service | <u>or equal</u> | <u>or equal</u> | <u>or equal</u> |
| C. Voltage | <u>Substation</u> | <u>Motor Starters</u> | <u>480V M</u> |
| D. Materials of Construction | <u>13.8 KV</u> | <u>4.16 KV</u> | <u>480V</u> |
| E. Description | <u>Cu Bus</u> | <u>Cu Bus</u> | <u>Cu Bus</u> |
| | <u>Vac.</u> | <u>Vac.</u> | <u>Fused Power</u> |
| | <u>Breakers</u> | <u>Breakers</u> | <u>Circuit Brea</u> |

4. DC System

A. Battery Charger (Type, Manufacturer, Model)

Exide Mod. U5130 or equal
C & D Type DCU or equal

B. Batteries (Type, Manufacturer, Model)

Lead Callium

C. Description

125V DC (60 Cells) w/Rack

5. Essential AC System

A. Inverter (Type, Manufacturer, Model)

Cyberex Mod. 30 or equal

B. Description

30 KVA UPS (0.8 PF)

6. Power Factor Correction

Description, Type 2100 KVAX. 12.8 KV Bank in outdoor enclosure

7. Lighting

Description of Outdoor and Indoor Systems Flourescent fixtures in offices. Indoor and outdoor lighting will be mercury vapor fixtures.

8. Instrumentation and Controls

A. Control Room Facilities

1. Manufacturer (DCS)

Bailey or equal

2. Description. Refer to the attached sheets See Section 2.11.2

B. Panel and Local Instrumentation and Controls Description (manufacturers, types, logic)

Included in Section 2.11.2

C. Description (control logic, auto/manual controls, main and remote control stations, primary instrumentation and metering)

See Section 2.11.3

PART E - MISCELLANEOUS INFORMATION

1. Spare Parts and Tools

Itemize the spare parts required and/or recommended for operation of the Facility. Each item must show Quantity, Size, Model, Output, Rating, etc., and other pertinent information necessary for procurement.

Spare parts and tools list developed with the cooperation of suppliers once purchase has been made.

2. Additional Equipment

Furnish an additional list of Plant Equipment not previously included in the Proposal Form. Provide manufacturer, size data and description information. N/A

3. Additional Information

Furnish additional information for items requested where adequate space was not provided in the Proposal Form. Reference these sheets in the Proposal Form. N/A