

Brown Units 1 & 2										
List of Items	Total Quantity	Installed	Installed	Installed	Installed	Normal Quantity	Normal	Normal	Normal	Total
	Installed	HP Each	HP Total	kW Each	kW Total	Operating	Operating HP	Operating Time	Operating kW	Operating kW
UNIT 1										
FD FANS										
FD FAN (Note 2)	1.0	1000.0	1000	877.6	878	1.0	700.0			
MISC FD FAN LOADS (lube oil pumps, heater, cooling fans)	1.0	15.0	15	12.0	12	1.0	15.0	24.0	12.0	12
FD FAN SUBTOTAL			1,015		890					12
PULSE JET FABRIC FILTER (PJFF)										
AQCS AIR COMPRESSORS	2.0	100.0	200	87.8	176	1.0	100.0	24.0	74.6	75
PJFF HOPPER HEATERS	8.0	8.6	69	7.5	60	8.0	8.6	24.0	6.4	51
PJFF DAMPERS SEAL AIR FAN	2.0	20.0	40	16.0	32	1.0	20.0	24.0	16.0	16
PJFF PENTHOUSE VENT FAN	6.0	5.0	30	4.0	24	6.0	5.0	24.0	4.0	24
PJFF PENTHOUSE UNIT HEATERS	6.0			10.0	60	6.0		24.0	10.0	60
PJFF HOPPER ENCLOSURE VENT FANS	4.0	1.0	4	0.8	3	4.0	1.0	24.0	0.8	3
PJFF JIB & HOIST	1.0	5.5	6	4.4	4	1.0	5.5	0.0	4.4	0
MISCELLANEOUS LOADS (PLCs, Solenoid valves, Pulse Valve Panels)	1.0			8.0	8	1.0		24.0	8.0	8
VACUUM EXHAUSTERS	2.0	150.0	300	120.3	241	1.0	150.0	12.0	120.3	60
PRESSURE TRANSFER BLOWERS	2.0	450.0	900	361.0	722	1.0	450.0	12.0	361.0	180
PJFF SUBTOTAL			1548		1330					478
AIR HEATER										
DRIVE MOTOR	1.0	25.0	25	20.1	20	1.0	15.0	24.0	12.0	12
AIR HEATER SUBTOTAL			25		20					12
HOT WATER AIR PREHEAT COIL										
PUMPS	2.0	28.0	56	22.5	45	1.0	28.0	24.0	22.5	22
HOT WATER AIR PREHEAT COIL SUBTOTAL			56		45					22
SELECTIVE CATALYTIC REDUCTION (SCR)										
RILEY POWER INC SCR SYSTEM	1.0			200.0	200	1.0		24.0	200.0	200
SCR SUBTOTAL			0		200					200
UNIT 1 SUBTOTAL			2644		2485					724
UNIT 2										
FD and ID FANS										
FD FAN (Note 2)	1.0	1500.0	1,500	1316.5	1,316	1.0	1000.0			
ID FAN	1.0	7900.0	7,900	6933.4	6,933	1.0	5600.0	24.0	4914.8	4,915
MISC FD AND ID FAN LOADS (lube oil pumps, heater, cooling fans)	2.0	16.0	32	12.8	26	2.0	16.0	24.0	12.8	26
FANS SUBTOTAL			9,432		8,276					4,940
PULSE JET FABRIC FILTER (PJFF)										
AQCS AIR COMPRESSORS	2.0	100.0	200	87.8	176	1.0	100.0	24.0	74.6	75
PJFF HOPPER HEATERS	12.0	11.5	138	10.1	121	12.0	11.5	24.0	8.6	103
PJFF DAMPERS SEAL AIR FAN	2.0	20.0	40	16.0	32	1.0	20.0	24.0	16.0	16
PJFF PENTHOUSE VENT FAN	6.0	5.0	30	4.0	24	6.0	5.0	24.0	4.0	24
PJFF PENTHOUSE UNIT HEATERS	6.0			10.0	60	6.0		24.0	10.0	60
PJFF HOPPER ENCLOSURE VENT FANS	4.0	1.0	4	0.8	3	4.0	1.0	24.0	0.8	3
PJFF JIB & HOIST	1.0	5.5	6	4.4	4	1.0	5.5	0.0	4.4	0
MISCELLANEOUS LOADS (PLCs, Solenoid valves, Pulse Valve Panels)	1.0			8.0	8	1.0		24.0	8.0	8
VACUUM EXHAUSTERS	2.0	150.0	300	120.3	241	1.0	150.0	12.0	120.3	60
PRESSURE TRANSFER BLOWERS	2.0	450.0	900	361.0	722	1.0	450.0	12.0	361.0	180
PJFF SUBTOTAL			1,618		1,391					530
AIR HEATER										
DRIVE MOTOR	1.0	25.0	25	20.1	20	1.0	15.0	24.0	12.0	12
AIR HEATER SUBTOTAL			25		20					12
HOT WATER AIR PREHEAT COIL										
PUMPS	2.0	55.0	110	44.1	88	1.0	55.0	24.0	44.1	44
HOT WATER AIR PREHEAT COIL SUBTOTAL			110		88					44
SELECTIVE CATALYTIC REDUCTION (SCR)										
RILEY POWER INC SCR SYSTEM	1.0			200.0	200	1.0		24.0	200.0	200
SCR SUBTOTAL			0		200					200
UNIT 2 SUBTOTAL			11185		9975					5726

Notes:

- 1 Motor Efficiencies were assumed at 93% except for compressors and ID fan drivers including VFDs which were assumed at 85%
- 2 FD Fans are powered by existing 2400V System.

Brown Units 1 & 2										
List of Items	Total Quantity	Installed	Installed	Installed	Installed	Normal Quantity	Normal	Normal	Normal	Total
	Installed	HP Each	HP Total	kW Each	kW Total	Operating	Operating HP	Operating Time	Operating kW	Operating kW
COMMON FOR UNIT 1 & 2										
POWDER ACTIVATED CARBON (PAC) INJECTION										
PAC BLOWER	4.0	11.5	46	9.2	37	2.0	11.5	24.0	9.2	18
PAC CONVEYING AIR BLOWER (Secondary)	1.0	11.5	12	9.2	9	0.0	11.5	24.0	9.2	0
PAC FEEDER HOPPER	4.0	1.0	4	0.8	3	2.0	1.0	24.0	0.8	2
PAC ROTARY FEEDER VALVE	4.0	0.5	2	0.4	2	2.0	0.5	24.0	0.4	1
PAC SKIRT HVAC UNIT HEATER	2.0			10.0	20	2.0		24.0	10.0	20
PAC SKIRT HVAC VENTILATION FAN	2.0	2.0	4	1.6	3	2.0	2.0	24.0	1.6	3
PAC HOPPER VIBRATORS	2.0	0.2	0	0.1	0	3.0	0.2	8.0	0.1	0.1
PAC INJECTION SUBTOTAL			68		74					44
SORBENT INJECTION										
SORBENT BLOWER	4.0	20.0	80	16.0	64	2.0	20.0	24.0	16.0	32
SORBENT CONVEYING AIR BLOWER (Secondary)	1.0	20.0	20	16.0	16	0.0	20.0	24.0	16.0	0
SORBENT FEEDER HOPPER	4.0	1.0	4	0.8	3	2.0	1.0	24.0	0.8	2
SORBENT ROTARY FEEDER VALVE	4.0	0.5	2	0.4	2	2.0	0.5	24.0	0.4	1
SORBENT SKIRT HVAC UNIT HEATER	2.0			10.0	20	2.0		24.0	10.0	20
SORBENT SKIRT HVAC VENTILATION FAN	2.0	2.0	4	1.6	3	2.0	2.0	24.0	1.6	3
SORBENT SILO BIN VENT FILTER FAN	2.0	1.0	2	0.8	2	2.0	1.0	24.0	0.8	2
SORBENT HOPPER VIBRATORS	2.0	0.2	0	0.1	0	3.0	0.2	8.0	0.1	0.1
SORBENT INJECTION SUBTOTAL			112		110					59
ENCLOSURE LOADS										
UNIT 1&2 COMMON AQCS ELEC BLDG HVAC LOADS	1.0			180.0	180	1.0		24.0	180.0	180
UNIT 1&2 COMMON ASH HANDLING BUILDING	1.0			180.0	180	1.0		24.0	180.0	180
ENCLOSURE LOADS SUBTOTAL			0		360					360
MISCELLANEOUS LOADS										
LIGHTING, FREEZE PROTECTION, AND RECEPTACLES				800.0	800	1.0		24.0	800.0	800
WELDING RECEPTACLES				100.0	100	1.0		1.0	100.0	4
MISC LOADS SUBTOTAL			0		900					804
COMMON UNIT 1&2 SUBTOTAL			180		1445					1268
TOTAL			14,009		13,904					7,718

Notes:

1 Motor Efficiencies were assumed at 93% except for compressors and ID fan drivers including VFDs which were assumed at 85%
2 FD Fans are powered by existing 2400V System.

Brown Unit 3										
List of Items	Total Quantity	Installed	Installed	Installed	Installed	Normal Quantity	Normal	Normal	Normal	Total
	Installed	HP Each	HP Total	kW Each	kW Total	Operating	Operating HP	Operating Time	Operating kW	Operating kW
PULSE JET FABRIC FILTER (PJFF)										
AQCS AIR COMPRESSORS	2.0	250.0	500	219.4	439	1.0	250.0	24.0	219.4	219
PJFF HOPPER HEATERS	14.0	13.4	188	10.7	150	14.0	13.4	24.0	10.7	150
PJFF DAMPERS SEAL AIR FAN	2.0	20.0	40	16.0	32	1.0	20.0	24.0	16.0	16
PJFF PENTHOUSE VENT FAN	6.0	5.0	30	4.0	24	6.0	5.0	24.0	4.0	24
PJFF PENTHOUSE UNIT HEATERS	6.0			10.0	60	6.0		24.0	10.0	60
PJFF HOPPER ENCLOSURE VENT FANS	6.0	1.0	6	0.8	5	6.0	1.0	24.0	0.8	5
PJFF JIB & HOIST	1.0	5.5	6	4.4	4	1.0	5.5	0.0	4.4	0
MISCELLANEOUS LOADS (PLCs, Solenoid valves, Pulse Valve Panels)	1.0			10.0	10	1.0		24.0	10.0	10
VACUUM EXHAUSTERS	2.0	150.0	300	120.3	241	2.0	150.0	12.0	120.3	120
PRESSURE TRANSFER BLOWERS	2.0	450.0	900	361.0	722	1.0	450.0	12.0	361.0	180
PJFF SUBTOTAL			1,969		1,687					786
POWDER ACTIVATED CARBON (PAC) INJECTION										
PAC BLOWER	3.0	11.5	35	9.2	28	2.0	11.5	24.0	9.2	18
PAC CONVEYING AIR BLOWER (Secondary)	1.0	11.5	12	9.2	9	0.0	11.5	24.0	9.2	0
PAC FEEDER HOPPER	3.0	1.0	3	0.8	2	2.0	1.0	24.0	0.8	2
PAC ROTARY FEEDER VALVE	4.0	0.5	2	0.4	2	2.0	0.5	24.0	0.4	1
PAC SKIRT HVAC UNIT HEATER	2.0			10.0	20	2.0		24.0	10.0	20
PAC SKIRT HVAC VENTILATION FAN	2.0	2.0	4	1.6	3	2.0	2.0	24.0	1.6	3
PAC HOPPER VIBRATORS	2.0	0.2	0	0.1	0.3	3.0	0.2	8.0	0.1	0.1
PAC INJECTION SUBTOTAL			55		64					44
ENCLOSURE LOADS										
AQCS ELEC BLDG HVAC LOADS	1.0			180.0	180	1.0		24.0	180.0	180
ASH HANDLING BUILDING	1.0			180.0	180	1.0		24.0	180.0	180
ENCLOSURE LOADS SUBTOTAL			0		360					360
STATION FLY ASH HANDLING SYSTEM										
FLY ASH SILO FLUIDIZING AIR BLOWER	4.0	75.0	300	60.2	241	3.0	75.0	8.0	60.2	60
FLY ASH SILO FLUIDIZING AIR HEATER	4.0			60.0	240	3.0		8.0	60.0	60
FLY ASH SILO DISCH CONDITIONING MIXER	4.0	60.0	240	48.1	193	3.0	60.0	8.0	48.1	48
FLY ASH SILO UNLOADING FLOOR HOIST	3.0	1.5	5	1.2	4	0.0	1.5	0.0	1.2	0
FLY ASH SILO JIB CRANE	3.0	4.0	12	3.2	10	0.0	4.0	0.0	3.2	0
STATION FLY ASH HANDLING SYSTEM SUBTOTAL			557		686					168
MISCELLANEOUS LOADS										
LIGHTING, FREEZE PROTECTION, AND RECEPTACLES				400.0	400	1.0		24.0	400.0	400
WELDING RECEPTACLES				50.0	50	1.0		1.0	50.0	2
MISC LOADS SUBTOTAL			0		450					402
TOTAL			2,581		3,248					1,760

Notes:

1 Motor Efficiencies were assumed at 93% except for compressors and ID fan drivers including VFDs which were assumed at 85%