

Mill Creek Unit 1										
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
<b>ID FANS</b>										
ID FANS	2.0	9400.0	18800	8249.9	16500	2.0	5400.0	24.0	4739.3	9,479
MISC ID FAN LOADS (lube oil pumps, heater, cooling fans)	2.0	15.0	30	12.0	24	2.0	15.0	24.0	12.0	24
<b>ID FAN SUBTOTAL</b>			<b>18,830</b>		<b>16,524</b>					<b>9,503</b>
<b>PULSE JET FABRIC FILTER (PJFF)</b>										
AQCS AIR COMPRESSORS	2.0	200.0	400	175.5	351	1.0	200.0	24.0	175.5	176
PJFF HOPPER HEATERS	8.0	17.2	138	13.8	110	8.0	17.2	24.0	13.8	110
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
<b>PJFF SUBTOTAL</b>			<b>617</b>		<b>593</b>					<b>397</b>
<b>SELECTIVE CATALYTIC REDUCTION (SCR)</b>										
RILEY POWER INC SCR SYSTEM	1.0			200.0	200	1.0		24.0	200.0	200
<b>SCR SUBTOTAL</b>			<b>0</b>		<b>200</b>					<b>200</b>
<b>POWDER ACTIVATED CARBON (PAC) INJECTION</b>										
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	3.0	0.2	8.0	0.1	0.1
<b>PAC INJECTION SUBTOTAL</b>			<b>55</b>		<b>64</b>					<b>44</b>
<b>SORBENT INJECTION</b>										
SORBENT BLOWER	3.0	20.0	60	16.0	48	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	3.0	1.0	3	0.8	2	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
<b>SORBENT INJECTION SUBTOTAL</b>			<b>91</b>		<b>93</b>					<b>59</b>
<b>ENCLOSURE LOADS</b>										
AQCS ELEC BLDG HVAC LOADS	1.0			180.0	180	1.0		24.0	180.0	180
FAN VFD ENCLOSURE LOADS	2.0			80.0	160	1.0		1.0	80.0	3
<b>ENCLOSURE LOADS SUBTOTAL</b>			<b>0</b>		<b>340</b>					<b>183</b>
<b>MISCELLANEOUS LOADS</b>										
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
<b>MISC LOADS SUBTOTAL</b>			<b>0</b>		<b>450</b>					<b>402</b>
<b>TOTAL</b>			<b>19,594</b>		<b>18,265</b>					<b>10,789</b>

Notes: 1 | Motor Efficiencies were assumed at 93% except for compressors and ID fan drivers including VFDs which were assumed at 85% 21122

Mill Creek Unit 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
<b>ID FANS</b>										
ID FANS	2.0	9400.0	18,800	8249.9	16,500	2.0	5400.0	24.0	4739.3	9,479
MISC ID FAN LOADS (tube oil pumps, heater, cooling fans)	2.0	16.0	32	12.8	26	2.0	16.0	24.0	12.8	26
<b>ID FAN SUBTOTAL</b>			<b>18,832</b>		<b>16,525</b>					<b>9,504</b>
<b>PULSE JET FABRIC FILTER (PJFF)</b>										
AQCS AIR COMPRESSORS	2.0	200.0	400	175.5	351	1.0	200.0	24.0	175.5	176
PJFF HOPPER HEATERS	8.0	17.2	138	13.8	110	8.0	17.2	24.0	13.8	110
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
<b>PJFF SUBTOTAL</b>			<b>1,817</b>		<b>1,556</b>					<b>638</b>
<b>SELECTIVE CATALYTIC REDUCTION (SCR)</b>										
RILEY POWER INC SCR SYSTEM	1.0			200.0	200	1.0		24.0	200.0	200
<b>SCR SUBTOTAL</b>			<b>0</b>		<b>200</b>					<b>200</b>
<b>POWDER ACTIVATED CARBON (PAC) INJECTION</b>										
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	3.0	0.2	8.0	0.1	0.1
<b>PAC INJECTION SUBTOTAL</b>			<b>55</b>		<b>64</b>					<b>44</b>
<b>SORBENT INJECTION</b>										
SORBENT BLOWER	3.0	20.0	60	16.0	48	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	3.0	1.0	3	0.8	2	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
<b>SORBENT INJECTION SUBTOTAL</b>			<b>91</b>		<b>93</b>					<b>59</b>
<b>ENCLOSURE LOADS</b>										
AQCS ELEC BLDG HVAC LOADS	1.0			180.0	180	1.0		24.0	180.0	180
FAN VFD ENCLOSURE LOADS	2.0			80.0	160	1.0		1.0	80.0	3
<b>ENCLOSURE LOADS SUBTOTAL</b>			<b>0</b>		<b>340</b>					<b>183</b>
<b>MISCELLANEOUS LOADS</b>										
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
<b>MISC LOADS SUBTOTAL</b>			<b>0</b>		<b>450</b>					<b>10,149</b>
<b>TOTAL</b>			<b>20,796</b>		<b>19,229</b>					<b>20,778</b>

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

Mill Creek 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
<b>BOOSTER FANS</b>										
BOOSTER FANS	2.0	6400.0	12,800	5616.9	11,234	2.0	3500.0	24.0	3071.8	6,144
MISC BOOSTER FAN LOADS (lube oil pumps, heater, cooling fans)	2.0	14.0	28	11.2	22	2.0	14.0	24.0	11.2	22
<b>BOOSTER FAN SUBTOTAL</b>			<b>12,828</b>		<b>11,256</b>					<b>6,166</b>
<b>PULSE JET FABRIC FILTER (PJFF)</b>										
AQCS AIR COMPRESSORS	2.0	250.0	500	219.4	439	1.0	250.0	24.0	219.4	219
PJFF HOPPER HEATERS	10.0	17.2	172	13.8	138	10.0	17.2	24.0	13.8	138
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
<b>PJFF SUBTOTAL</b>			<b>1,954</b>		<b>1,675</b>					<b>773</b>
<b>POWDER ACTIVATED CARBON (PAC) INJECTION</b>										
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
<b>PAC INJECTION SUBTOTAL</b>			<b>55</b>		<b>64</b>					<b>44</b>
<b>SORBENT INJECTION</b>										
SORBENT BLOWER	3.0	20.0	60	16.0	48	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	3.0	1.0	3	0.8	2	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
<b>SORBENT INJECTION SUBTOTAL</b>			<b>91</b>		<b>93</b>					<b>59</b>
<b>ENCLOSURE LOADS</b>										
AQCS ELEC BLDG HVAC LOADS	1.0			180.0	180	1.0		24.0	180.0	180
FAN VFD ENCLOSURE LOADS	2.0			80.0	160	1.0		1.0	80.0	3
<b>ENCLOSURE LOADS SUBTOTAL</b>			<b>0</b>		<b>340</b>					<b>183</b>
<b>MISCELLANEOUS LOADS</b>										
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
<b>MISC LOADS SUBTOTAL</b>			<b>0</b>		<b>450</b>					<b>402</b>
<b>TOTAL</b>			<b>14,928</b>		<b>13,879</b>					<b>7,628</b>

6,286

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

Mill Creek Unit 4										
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
<b>BOOSTER FANS</b>										
BOOSTER FANS	2.0	6800.0	13,600	5968.0	11,936	2.0	3700.0	24.0	3247.3	6,495
MISC BOOSTER FAN LOADS (lube oil pumps, heater, cooling fans)	2.0	15.0	30	12.0	24	2.0	15.0	24.0	12.0	24
<b>BOOSTER FAN SUBTOTAL</b>			<b>13,630</b>		<b>11,960</b>					<b>6,519</b>
<b>PULSE JET FABRIC FILTER (PJFF)</b>										
AQCS AIR COMPRESSORS	2.0	300.0	600	263.3	527	1.0	300.0	24.0	263.3	263
PJFF HOPPER HEATERS	12.0	17.2	206	13.8	166	12.0	17.2	24.0	13.8	166
PJFF DAMPERS SEAL AIR FAN	4.0	20.0	80	16.0	64	2.0	20.0	24.0	16.0	32
PJFF PENTHOUSE VENT FAN	10.0	10.0	100	7.5	75	10.0	10.0	24.0	8.0	80
PJFF PENTHOUSE UNIT HEATERS	10.0			10.0	100	10.0		24.0	10.0	100
PJFF HOPPER ENCLOSURE VENT FANS	8.0	1.0	8	0.8	6	8.0	1.0	24.0	0.8	6
PJFF JIB & HOIST	2.0	5.5	11	4.4	9	1.0	5.5	0.0	4.4	0
MISCELLANEOUS LOADS (PLCs, Solenoid valves, Pulse Valve Panels)	1.0			12.0	12	1.0		24.0	12.0	12
VACUUM EXHAUSTERS	2.0	200.0	400	160.4	321	2.0	200.0	12.0	160.4	160
PRESSURE TRANSFER BLOWERS	2.0	350.0	700	280.8	562	2.0	350.0	12.0	280.8	281
<b>PJFF SUBTOTAL</b>			<b>2,105</b>		<b>1,841</b>					<b>1,101</b>
<b>POWDER ACTIVATED CARBON (PAC) INJECTION</b>										
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	3.0	0.2	8.0	0.1	0.1
<b>PAC INJECTION SUBTOTAL</b>			<b>55</b>		<b>64</b>					<b>44</b>
<b>SORBENT INJECTION</b>										
SORBENT BLOWER	3.0	20.0	60	16.0	48	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	3.0	1.0	3	0.8	2	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	3.0	0.2	8.0	0.1	0.1
<b>SORBENT INJECTION SUBTOTAL</b>			<b>91</b>		<b>93</b>					<b>59</b>
<b>WET FLUE GAS DESULFURIZATION (WFGD)</b>										
REACTION TANK AGITATORS	8.0	75.0	600	60.2	481	4.0	75.0	24.0	60.2	241
RECYCLE PUMPS	6.0	2000.0	12,000	1604.3	9,626	5.0	2000.0	24.0	1604.3	8,022
SLURRY BLEED PUMPS	2.0	175.0	350	140.4	281	1.0	175.0	24.0	140.4	140
OXIDATION AIR BLOWERS	2.0	3000.0	6,000	2406.5	4,813	1.0	3000.0	24.0	2406.5	2,406
OXIDATION AIR BLOWER INLET GUIDE VANES	2.0	3.0	6	2.4	5	1.0	3.0	24.0	2.4	2
OXIDATION AIR LUBE OIL PUMPS	4.0	25.0	100	20.1	80	2.0	25.0	24.0	20.1	40
OXIDATION AIR BLOWER BLOWOFF VALVE MOTORS	2.0	3.0	6	2.4	5	1.0	3.0	24.0	2.4	2
OXIDATION AIR BLOWER DISCHARGE DIFFUSER VANE MOTORS	2.0	3.0	6	2.4	5	1.0	3.0	24.0	2.4	2
MIST ELIMINATOR WASH WATER PUMPS	2.0	115.0	230	92.2	184	1.0	115.0	24.0	92.2	92
ABSORBER AREA SUMP PUMPS	2.0	30.0	60	24.1	48	1.0	30.0	1.0	24.1	1
ABSORBER AREA SUMP AGITATORS	1.0	8.5	9	6.8	7	1.0	8.5	24.0	6.8	7
CHLORINE BLEED PUMPS	2.0	20.0	40	16.0	32	1.0	20.0	24.0	16.0	16
HYDROCYCLONE UNDERFLOW TRANSFER TANK AGITATOR	1.0	75.0	75	60.2	60	1.0	75.0	24.0	60.2	60
HYDROCYCLONE UNDERFLOW TRANSFER PUMPS	2.0	175.0	350	140.4	281	1.0	175.0	24.0	140.4	140
<b>WFGD SUBTOTAL</b>			<b>19,832</b>		<b>15,908</b>					<b>11,173</b>
<b>ENCLOSURE LOADS</b>										
AQCS ELEC BLDG HVAC LOADS	1.0			180.0	180	1.0		24.0	180.0	180
FGD PUMP ENCLOSURE HVAC LOADS	1.0			100.0	100	1.0		24.0	100.0	100
SWITCHGEAR BUILDING HVAC LOADS	1.0			180.0	180	1.0		24.0	180.0	180
FAN VFD ENCLOSURE LOADS	2.0			80.0	160	1.0		24.0	80.0	160

Mill Creek Unit 4										
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
<b>ENCLOSURE LOADS SUBTOTAL</b>			0		620					620
<b>MISCELLANEOUS LOADS</b>										
LIGHTING, FREEZE PROTECTION, AND RECEPTACLES				600.0	600	1.0		24.0	600.0	600
WELDING RECEPTACLES				100.0	100	1.0		1.0	100.0	4
<b>MISC LOADS SUBTOTAL</b>			0		700					604
<b>TOTAL</b>			35,714		31,186					20,120

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