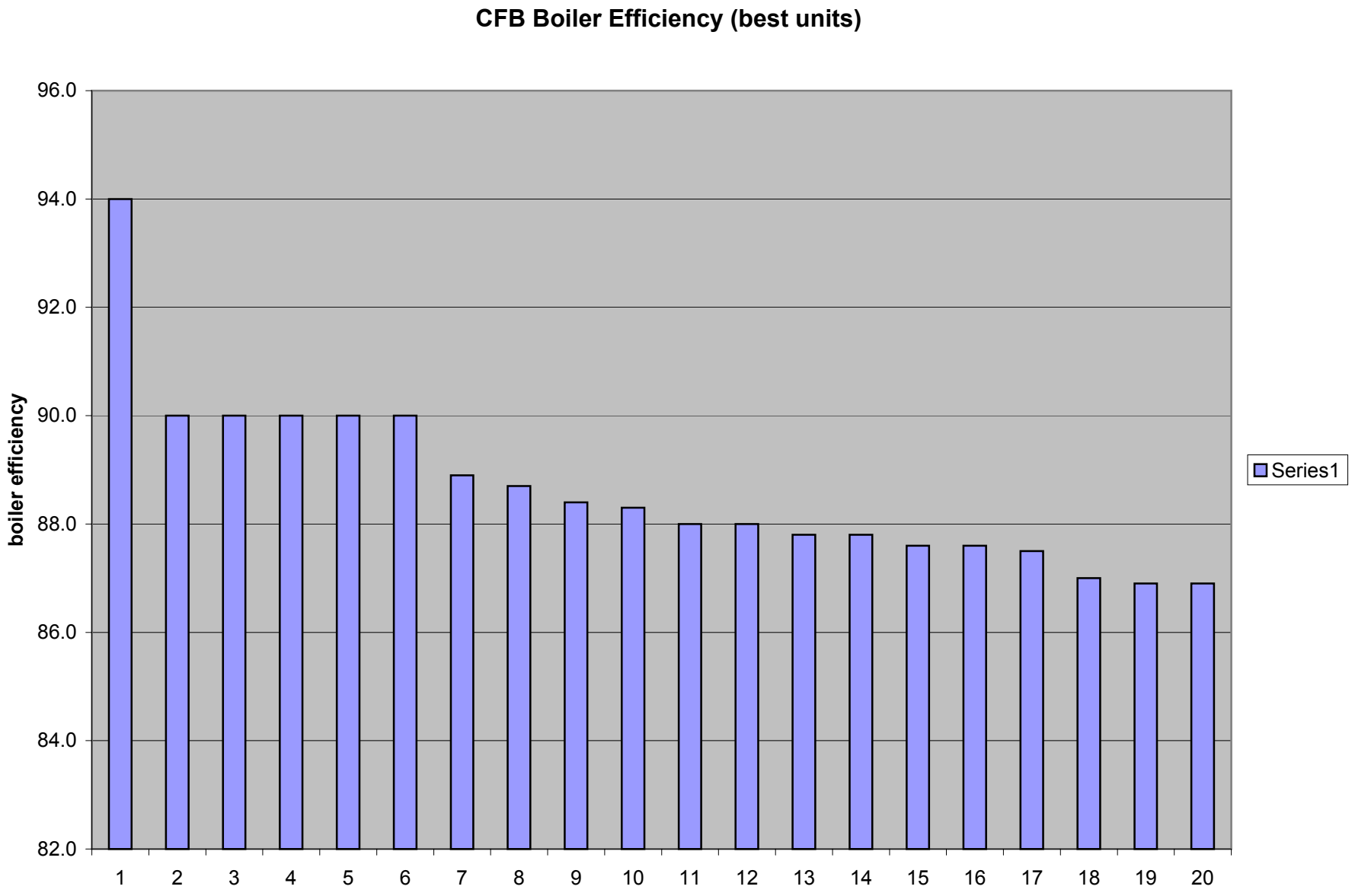
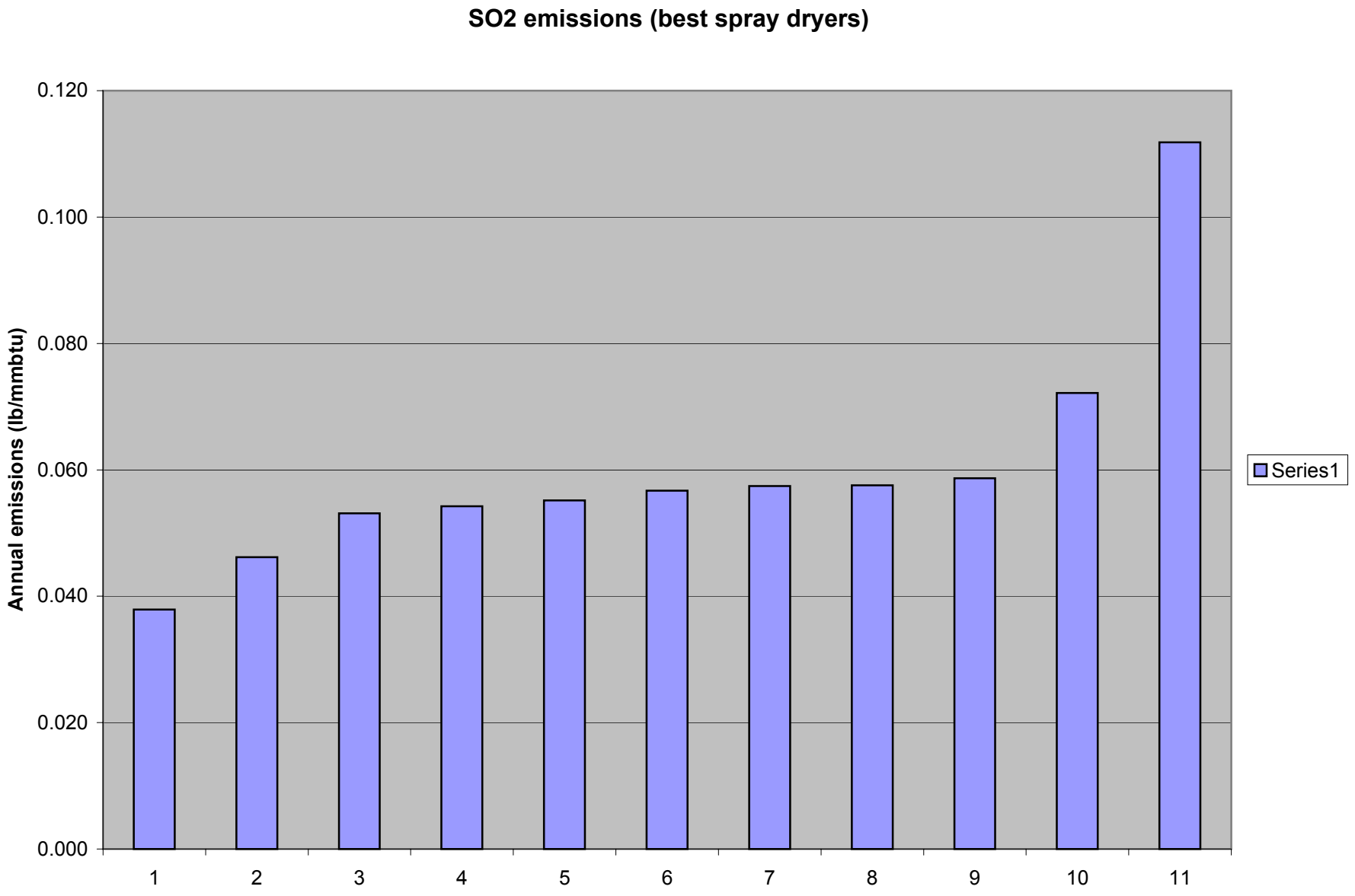

CFB Boiler Efficiency (best units)
boiler efficiency
96.0
94.0
92.0
90.0
88.0
86.0
84.0
82.0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
Series1

EIA Plant Code (ORISPL)	Plant Name	Boiler ID	Boiler Manufacturer	Boiler Status	Boiler Firing Type (Primary Fuel)	Wet or Dry Bottom	In Service Date	Average Efficiency (Primary Fuel) at 100% Load (%)	Design Coal Firing Rate (tons/h)
4125	Manitowoc	8	Fo	Operating	Fluidized b	Dry	6/1/1990	94.0	11
667	Northside Generating Station	1	Fo	Operating	Fluidized b	Dry	5/1/2002	90.0	96
		2	Fo	Operating	Fluidized b	Dry	5/1/2002	90.0	0
10672	Cedar Bay Generating LP	CBA	P	Operating	Fluidized b	Dry	1/1/1994	90.0	41
		CBB	Py	Operating	Fluidized b	Dry	1/1/1994	90.0	41
		CBC	Py	Operating	Fluidized b	Dry	1/1/1994	90.0	41
10678	S Warrior Run Cogeneration Fac	BLR1	Co	Operating	dized bed fi	Dry	2/1/2000	88.9	90
976	Marion	123	Fo	Operating	Fluidized b	Wet	5/1/2003	88.7	80
6041	H L Spurlock	3	Al	Operating	Fluidized b	Dry	4/1/2005	88.4	120
527	Nucla	1	P	Operating	Fluidized b	Dry	1/1/1991	88.3	58
1379	Shawnee	10	Co	Operating	Fluidized b	Dry	12/1/1990	88.0	66
		4	Co	Planned (o	Fluidized b	Dry	4/1/2008	88.0	0
10675	AES Thames	A	n E	Operating	Fluidized b	Dry	3/1/1990	87.8	39
		B	Co	Operating	Fluidized b	Dry	3/1/1990	87.8	39
10673	AES Hawaii	BLRA	W	Operating	Fluidized b	Dry	9/1/1992	87.6	42
		BLRB	Fo	Operating	Fluidized b	Dry	9/1/1992	87.6	42
		CFB8	Do	vice or out	dized bed fi	Dry	5/1/1997	87.5	66
10143	Colver Power Project	ABB01	W	vice or out	dized bed fi	Dry	5/1/1995	87.0	84
		5	Ta	Operating	Fluidized b	Dry	8/1/2001	86.9	89
		CFB9	mp	vice or out	dized bed fi	Dry	2/1/2001	86.9	67
10495	Rumford Cogeneration	6	Py	Operating	Fluidized b	Dry	12/1/1990	86.7	415
		7	Py	Operating	Fluidized b	Dry	12/1/1990	86.7	415
3130	Seward	1	Ot	Operating	Fluidized b	(blank)	3/1/2004	86.5	230
		2	Ot	Operating	Fluidized b	(blank)	3/1/2004	86.5	230
50888	lorthampton Generating Compan	BLR1	W	Operating	dized bed fi	Dry	8/1/1995	85.0	74
10671	AES Shady Point	1A	n E	Operating	dized bed fi	Dry	1/1/1991	84.8	28
		1B	Co	Operating	Fluidized b	Dry	1/1/1991	84.8	28
		2A	n E	vice or out	dized bed fi	Dry	1/1/1991	84.8	28
		2B	Co	Operating	Fluidized b	Dry	1/1/1991	84.8	28
10864	cher Daniels Midland Cedar Rapi	1	Ke	Operating	Fluidized b	Dry	10/1/1988	84.0	33
		2	Ke	Operating	Fluidized b	Dry	11/1/1988	84.0	33
		3	Ke	Operating	Fluidized b	Dry	3/1/1989	84.0	33
		4	Ke	Operating	Fluidized b	Wet	10/1/1994	84.0	33
10865	Archer Daniels Midland Decatur	CFB1	Do	vice or out	dized bed fi	Dry	2/1/1987	84.0	25
		CFB2	Do	vice or out	dized bed fi	Dry	4/1/1987	84.0	25
		CFB3	Do	vice or out	dized bed fi	Dry	7/1/1987	84.0	25
		CFB4	Do	vice or out	dized bed fi	Dry	7/1/1987	84.0	25
		CFB5	Do	vice or out	dized bed fi	Dry	12/1/1987	84.0	25
		CFB6	Do	vice or out	dized bed fi	Dry	12/1/1991	84.0	28
		CFB7	mp	vice or out	dized bed fi	Dry	3/1/1996	84.0	28
7030	Twin Oaks Power One	U1	n E	Operating	dized bed fi	Dry	9/1/1990	83.4	121
		U2	Co	Operating	Fluidized b	Dry	10/1/1991	83.4	121
50397	P H Glatfelter	5PB036	th	vice or out	dized bed fi	Dry	9/1/1989	82.7	0
55076	Red Hills Generating Facility	AA001	str	vice or out	dized bed fi	Dry	3/1/2002	82.4	210
		AA002	Al	Operating	Fluidized b	Dry	3/1/2002	82.4	210
2790	R M Heskett	B2	an	Operating	dized bed fi	Dry	11/1/1963	80.3	68
10360	Green Bay West Mill	B29	an	vice or out	dized bed fi	Dry	6/1/1992	64.0	0
10002	ACE Cogeneration Facility	CFB	P	Operating	dized bed fi	Dry	6/1/1990	33.1	58


SO2 emissions (best spray dryers)
Annual emissions (lb/mmbtu)
0.120
0.100
0.080
0.060
0.040
0.020
0.000
1
2
3
4
5
6
7
8
9
10
11
Series1

EIA Plant Code (ORISPL)	Plant Name	Boiler ID	Controlling NOx Regulation	CAAA Phase and Group Designation	NOx Emission Standard	NOx Emission Standard Units	3 Manufacti	NOx Regulation Compliance Year	NOx Compliance Strategy	NOx Control Status	NOx Control Process 1	NOx Control Process 2	NOx Control Process 3	Primary NOx Control Process	Annual In Service Hours	Annual Controlled NOx Emission Rate (lb/mm Btu)	May-Sept. Controlled NOx Emission Rate (lb/mm Btu)
		CFB9	State	(blank)	0.07	lb/mm Btu	(blank)	2002	y meeting	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	7,728	0.080	0.080
		CFB7	State	(blank)	0.12	lb/mm Btu	(blank)	1996	y meeting	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	7,944	0.100	0.100
		CFB8	State	(blank)	0.12	lb/mm Btu	(blank)	1997	y meeting	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	7,604	0.110	0.110
10672	Cedar Bay Generating LP	CBA	State	(blank)	0.17	lb/mm Btu	(blank)	1994	y meeting	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	7,788	0.160	0.160
		CBB	State	(blank)	0.17	lb/mm Btu	(blank)	1994	y meeting	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	7,581	0.160	0.160
10673	AES Hawaii	CBC	State	(blank)	0.17	lb/mm Btu	(blank)	1994	y meeting	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	7,539	0.160	0.160
		CFB6	Federal	(blank)	0.42	lb/mm Btu	(blank)	1991	y meeting	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	8,208	0.290	0.290
		BLRA	State	(blank)	0.50	lb/mm Btu	(blank)	1992	y meeting	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	8,760	0.097	0.099
		BLRB	State	(blank)	0.5	lb/mm Btu	(blank)	1992	y meeting	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	8,760	0.095	0.096
10865	Archer Daniels Midland Decatur	CFB1	Federal	(blank)	0.60	lb/mm Btu	(blank)	1987	y meeting	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	8,184	0.270	0.280
		CFB2	Federal	(blank)	0.6	lb/mm Btu	(blank)	1987	y meeting	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	7,056	0.330	0.360
		CFB3	Federal	(blank)	0.6	lb/mm Btu	(blank)	1987	y meeting	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	7,874	0.240	0.250
		CFB4	Federal	(blank)	0.6	lb/mm Btu	(blank)	1987	y meeting	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	7,992	0.270	0.250
		CFB5	Federal	(blank)	0.6	lb/mm Btu	(blank)	1987	y meeting	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	7,824	0.230	0.230
6041	H L Spurlock	4	Federal	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	to go into c	ed Bed Con	oncatalytic	(blank)	(blank)	NL	NL	NL
10328	T B Simon Power Plant	BLR4	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	6,314	0.137	0.133
10640	Stockton Cogen	BLR1	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	8,321	0.034	0.034
10641	Cambria Cogen	B1	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	8,137	0.209	0.094
		B2	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	8,184	0.209	0.094
10768	Rio Bravo Jasmin	CFB	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	8,294	0.085	0.086
10769	Rio Bravo Poso	CFB	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	8,427	0.081	0.082
50202	WPS Power Niagara	1	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	vice or out	ed Bed Con	oncatalytic	(blank)	Non-catalytic	7,343	0.130	0.140
54144	Piney Creek Project	BRBR1	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	he season	ed Bed Con	oncatalytic	ow Excess A	(blank)	3,720	0.140	0.080
54238	Port of Stockton District Energy Fac	N64514	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	7,486	0.140	0.140
		N64516	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	7,833	0.140	0.140
54626	Mt Poso Cogeneration	BL01	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	(blank)	vice or out	ed Bed Con	oncatalytic	(blank)	(blank)	8,355	0.077	0.077

EIA Plant Code (ORISPL)	Plant Name	FGD Unit ID	FGD Unit Status	Controlling SO2 Regulation	CAAA Phase Designation	SO2 Emission Standard	SO2 Emission Standard Units	SO2 Compliance Strategy	FGD Unit Type	FGD Unit Manufacturer	Sorbent Type	Number of associated Boilers	Average of SO2 Removal Efficiency at 100% Load (%)	Sorbent Quantity (1000 tons)	FGD Waste Plus Salable By-Products Generated (1000 tons)	Gypsum Generated (1000 tons)	Gypsum Sold as By-Product (1000 tons)	FGD Sludge Generated (1000 tons)
		2	Operating	Federal	(blank)	0.1	lb/mm Btu	Currently N	Spray type	Other	Limestone	1	NL	46.8	102	0	NL	73.30
4941	Navajo	1	Operating	Federal	(blank)	0.1	lb/mm Btu	Currently N	Spray type	Other	Limestone	1	NL	40.1	102	0	NL	62.80
		2CCC	Operating	State	(blank)	0.138	lb/mm Btu	Currently N	Spray type	General El	Limestone	1	91.4	50.8	208.6	0	NL	92.11
		2	Operating	State	(blank)	0.1	lb/mm Btu	Currently N	Spray type	Other	Limestone	1	94	48.1	160	0	NL	84.76
		3	Operating	Federal	(blank)	0.1	lb/mm Btu	Currently N	Spray type	Other	Limestone	1	97.4	46.8	102	0	NL	73.30
		C2	Operating	Federal	Phase 2	0.01	% S remov	Currently N	Spray type	Peabody	Limestone	1	95	22.5	28	NL	NL	31.67
6481	Intermount	1CCC	Operating	State	(blank)	0.138	lb/mm Btu	Currently N	Spray type	General El	Limestone	1	92.1	45.6	219	0	NL	82.69
6021	Craig	C1	Operating	Federal	Phase 2	0.01	lb/mm Btu	Currently N	Spray type	Peabody	Limestone	1	95.6	23.3	28	NL	NL	32.79
7213	Clover	1	Operating	State	(blank)	0.1	lb/mm Btu	Currently N	Spray type	Other	Limestone	1	94	52	160	0	NL	91.64
6165	Hunter	3	Operating	State	(blank)	0.12	lb/mm Btu	Currently N	Spray type	General El	Limestone	1	90	11.1	30	0	NL	34.10
2079	Hawthorn	5A	Operating	Federal	(blank)	0.12	lb/mm Btu	Currently N	Spray drye	Babcock a	Lime and a	1	94	16.3	161	NL	NL	NL
		H2	Operating	State	(blank)	0.13	lb/mm Btu	Currently N	Spray drye	Babcock a	Lime and a	1	85	NL	NL	NL	NL	NL
525	Hayden	H1	Operating	State	(blank)	0.13	lb/mm Btu	Currently N	Spray drye	Babcock a	Lime and a	1	85	16.8	NL	0	NL	0.00
		FDA2	Operating	Federal	(blank)	0.01	lb/mm Btu	(blank)	Spray drye	Other	Limestone	1	95	0.27	734	0	NL	0.00
3130	Seward	FDA1	Operating	Federal	(blank)	0.01	lb/mm Btu	(blank)	Spray drye	Other	Limestone	1	95	0.27	488	0	NL	0.00
130	Cross	3	New unit u	State	(blank)	0.13	lb/mm Btu	(blank)	Spray type	Riley Stoke	Limestone	1	NL	NL	NL	NL	NL	NL
		4	New unit u	State	(blank)	0.13	lb/mm Btu	(blank)	Spray type	Riley Stoke	Limestone	1	NL	NL	NL	NL	NL	NL
1082	Council Blu	4	New unit u	Federal	(blank)	0.1	lb/mm Btu	Other	Spray drye	Babcock a	Lime and a	1	NL	NL	NL	NL	NL	NL
7790	Bonanza	1-1	Operating	Federal	(blank)	0.1	lb/mm Btu	Currently N	Spray type	Combustio	Limestone	1	95	0.1	43	0	NL	100.80
54081	Cogentrix	1A	Operating	State	(blank)	0.13	lb/mm Btu	Currently N	Spray drye	Joy Manufa	Lime and a	1	NL	16.6	62	0	NL	86.00
		1B	Operating	State	(blank)	0.13	lb/mm Btu	Currently N	Spray drye	Joy Manufa	Lime and a	1	NL	NL	NL	NL	NL	NL
		2A	Operating	State	(blank)	0.13	lb/mm Btu	Currently N	Spray drye	Joy Manufa	Lime and a	1	NL	NL	NL	NL	NL	NL
		2B	Operating	State	(blank)	0.13	lb/mm Btu	Currently N	Spray drye	Joy Manufa	Lime and a	1	NL	NL	NL	NL	NL	NL
		3A	Operating	State	(blank)	0.13	lb/mm Btu	Currently N	Spray drye	Joy Manufa	Lime and a	1	NL	NL	NL	NL	NL	NL
		3B	Operating	State	(blank)	0.13	lb/mm Btu	Currently N	Spray drye	Joy Manufa	Lime and a	1	NL	NL	NL	NL	NL	NL
		4A	Operating	State	(blank)	0.13	lb/mm Btu	Currently N	Spray drye	Joy Manufa	Lime and a	1	NL	NL	NL	NL	NL	NL
		4B	Operating	State	(blank)	0.13	lb/mm Btu	Currently N	Spray drye	Joy Manufa	Lime and a	1	NL	NL	NL	NL	NL	NL
54304	Birchwood	1H	Operating	State	(blank)	0.1	lb/mm Btu	Currently N	Spray drye	Combustio	Lime	1	93.6	25.6	NL	0	NL	0.00

FGD Sludge Sold as By-Product (1000 tons)	Flue Gas Bypass Around FGD Unit	Average of Design SO2 Removal at 100% Load (%)	Design SO2 Emission Rate at 100% Load (lbs/h)	Design Flue Gas Exit Rate at 100% Load (acfm)	Design Flue Gas Exit Temperature at 100% Load (deg F)	Average of Design Flue Gas Entering FGD Unit at 100% Load (%)	Average of Design Fuel Spec for Coal Ash (%)	Average of Design Fuel Spec for Coal Sulfur (%)	Total FGD O&M Costs (1000 $)	FGD By-Product Sales Revenue (1000 $)	FGD Unit Total Installed Cost (1000 $)	Annual SO2 Emissions (tons)	Annual SO2 Emissions (lb/mm Btu)	Average of Actual SO2 Removal Efficiency (%)	Annual In Service Hours	No. of FGD Trains or Modules Operated at 100% Load	No. of FGD Trains or Modules (Total)	FGD Unit In Service Date
NL	0	92	771	3006814	122	100	11.6	0.6	1609	NL	140000	1,125	0.038	96	8163	2	2	36100
NL	0	92	771	3006814	122	100	11.6	0.6	1384	NL	140000	1,192	0.046	96	7023	2	2	36373
NL	0	90	1253	3747000	135	100	14	0.6	3421	NL	96067	1,821	0.053	95	8284	4	6	31959
NL	0	90	409	795000	290	100	13	2	NL	NL	NL	809	0.054	94	7743	2	3	35125
NL	0	92	771	3006814	122	100	11.6	0.6	1607	NL	140000	1,628	0.055	96	8153	2	2	35735
NL	0	95	190	2030000	112	100	22.6	0.6	2291	NL	45042	1,008	0.057	93.6	8364	3	4	29160
NL	0	90	1253	3747000	135	100	14	0.6	5740	NL	96067	1,773	0.057	94.4	7504	4	6	31594
NL	0	95	190	2030000	112	100	22.6	0.6	1726	NL	50846	1,057	0.058	94	8650	3	4	29403
NL	0	90	409	795000	290	100	13	2	5121	NL	NL	943	0.059	94	8359	2	3	34973
NL	0	90	375	1785000	119	100	12.9	0.6	1803	NL	46086	1,243	0.072	90.8	7789	4	4	30468
NL	0	94	567	1764180	162	100	5.5	0.3	3612	NL	21245	2,141	0.112	85	7723	2	2	37043
NL	0	85	350	1300000	160	100	8.7	0.4	NL	NL	40	1,594	0.144	85	8301	2	2	36312
NL	0	85	300	815000	160	100	8.7	0.4	1737	NL	44	1,298	0.158	85	8352	2	2	36130
NL	0	95	NL	740445	142	100	50	2.9	0	NL	12650	3,744	0.454	95	6675	2	2	38047
NL	0	95	NL	740445	142	100	50	2.9	4	NL	12650	3,875	0.537	95	6473	2	2	38047
NL	0	97	1261	1765000	121	100	17	2.5	NL	NL	0	NL	NL	NL	0	1	1	39083
NL	0	97	1261	1765000	121	100	17	2.5	NL	NL	32000	NL	NL	NL	0	1	1	39083
NL	NL	92	768	2743745	166	100	7	0.6	NL	NL	NL	NL	NL	NL	0	3	3	39234
NL	0	95	204	1395000	120	100	9.6	0.5	0	NL	66000	NL	NL	94.1	8233	2	3	31533
NL	0	93.7	29	115000	190	100	11	NL	3387	NL	2600	NL	NL	92	8419	1	1	33725
NL	0	93.6	29	115000	190	100	11	NL	0	NL	2600	NL	NL	92	8491	1	1	33725
NL	0	93.2	33	110000	190	100	11	NL	0	NL	2600	NL	NL	92	8410	1	1	33725
NL	0	93.4	24	110000	190	100	11	NL	0	NL	2600	NL	NL	92	8466	1	1	33725
NL	0	93	27	119000	190	100	11	NL	0	NL	2600	NL	NL	92	8409	1	1	33817
NL	0	93.3	36	119000	190	100	11	NL	0	NL	2600	NL	NL	92	8437	1	1	33817
NL	0	92.9	28	120000	190	100	11	NL	0	NL	2600	NL	NL	92	8091	1	1	33817
NL	0	93.4	23	120000	190	100	11	NL	0	NL	2600	NL	NL	92	8153	1	1	33817
NL	0	93	156	490000	150	100	12	1	3202	NL	NL	NL	NL	92.3	7807	1	1	35400

State	(All)

EIA Plant Code (ORISPL)	Plant Name	FGP Unit ID	FGP Unit Status	FGP Primary Unit Type 1	FGP Secondary Unit Type	Data Number of associated Boilers	FGP Unit In Service Date	Annual FGP Unit In Service Hours	Average of Actual Annual Particulate Removal Efficiency (%)	Average of Particulate Removal Efficiency at 100% Load (%)	Particulate Emission Rate at Operating Conditions (lb/mm Btu)	Total Ash Generated (1000 tons)	Total Fly Ash Generated (1000 tons)	Fly Ash Sold as By-Product (1000 tons)	Total Bottom Ash Generated (1000 tons)	Bottom Ash Sold as By-Product (1000 tons)	PM25 Filterable (tons)	PM25 Primary (tons)	PM10 Filterable (tons)	PM10 Primary (tons)	PM Condensable (tons)	AP-42 PM2.5 Filterable (tons)	AP-42 PM10 Filterable (tons)	AP-42 Total PM Filterable (tons)
26	E C Gastor	2	Operating	Electrostat	ghouse, pu	1	6/1/1976	7,955	99.9	99.9	0.010	78.3	56.4	17.9	15.7	3.6	93.4	822.7	216.1	945.5	729.4	94.0	211.5	313.3
		3	Operating	Electrostat	ghouse, pu	1	6/1/1975	8,249	99.9	99.9	0.010	87.1	62.7	19.9	17.4	4.0	102.6	904.0	237.5	1,038.8	801.4	104.5	235.2	348.4
1379	Shawnee	1	Operating	ultiple cyclo	ouse, rever	1	6/1/1981	8,050	99.3	99.3	0.040	32.3	23.6	NL	5.9	NL	29.4	85.9	39.0	95.5	56.5	16.2	32.3	32.3
		2	Operating	Multiple cy	ouse, rever	1	3/1/1981	8,105	99.3	99.3	0.040	32.4	23.7	NL	5.9	NL	29.6	86.3	39.2	96.0	56.7	16.2	32.4	32.4
		3	Operating	Multiple cy	ouse, rever	1	11/1/1980	7,273	99.3	99.3	0.040	31.5	23.0	NL	5.7	NL	28.7	83.9	38.1	93.3	55.2	15.7	31.5	31.5
		4	Operating	Multiple cy	ouse, rever	1	5/1/1980	8,728	99.3	99.3	0.040	35.6	26.0	NL	6.5	NL	32.6	95.1	43.2	105.8	62.6	17.8	35.6	35.6
		5	Operating	Multiple cy	ouse, rever	1	11/1/1979	8,760	99.3	99.3	0.040	36.3	26.5	NL	6.6	NL	33.2	96.8	44.0	107.7	63.6	18.1	36.3	36.3
		6	Operating	Multiple cy	ouse, rever	1	2/1/1980	8,760	99.1	99.1	0.050	35.3	25.8	NL	6.4	NL	32.3	94.3	42.9	104.9	62.0	17.7	35.3	35.3
		7	Operating	Multiple cy	ouse, rever	1	7/1/1980	7,703	99.1	99.1	0.050	31.2	22.8	NL	5.7	NL	28.1	82.2	37.4	91.4	54.0	15.6	31.2	31.2
		8	Operating	Multiple cy	ouse, rever	1	2/1/1981	8,419	99.1	99.1	0.050	34.2	25.0	NL	6.2	NL	31.2	91.0	41.4	101.2	59.8	17.1	34.2	34.2
		9	Operating	Multiple cy	ouse, rever	1	4/1/1981	8,419	99.1	99.1	0.050	35.1	25.7	NL	6.4	NL	32.1	93.8	42.6	104.3	61.6	17.6	35.1	35.1
2917	Hamilton	9	Operating	Electrostat	ghouse, pu	1	6/1/1975	5,444	99.8	NL	0.020	6.2	6.3	NL	0.7	NL	0.5	10.9	1.8	12.2	10.4	7.5	16.8	24.9
3152	gy Servs Su	1A	Operating	ultiple cyclo	ouse, rever	1	1/1/1973	6,988	99.1	99.1	0.010	46.0	33.4	1.8	7.2	1.5	17.7	354.2	73.4	410.9	336.5	NL	NL	NL
		1B	Operating	Multiple cy	ouse, rever	1	1/1/1973	7,544	99.1	99.1	0.010	49.5	36.0	2.0	7.8	1.6	45.9	920.3	190.8	1,067.6	874.3	NL	NL	NL
		2A	Operating	Multiple cy	ouse, rever	1	1/1/1973	7,386	99.1	99.1	0.010	49.0	35.6	1.9	7.7	1.6	45.9	920.3	190.8	1,067.6	874.3	NL	NL	NL
		2B	Operating	Multiple cy	ouse, rever	1	1/1/1973	7,348	99.1	99.1	0.010	57.1	121.2	15.9	26.2	13.2	45.9	920.3	190.8	1,067.6	874.3	NL	NL	NL
3497	Big Brown	1	Operating	cold side, with flue ga		1	12/1/1971	8,483	99.7	99.7	0.030	574.0	242.2	166.1	98.0	NL	NL	NL	NL	NL	NL	NL	NL	NL
		2	Operating	Electrostatic precipitat		1	12/1/1972	7,581	99.7	99.7	0.030	532.8	224.8	154.2	90.9	NL	NL	NL	NL	NL	NL	NL	NL	NL
4125	Manitowoc	6	Operating (in commercial service or out of service less than 365 days)	ultiple cyclo	ghouse, pu	1	1/1/1995	7,121	99.7	99.7	0.020	4.8	0.0	NL	0.0	NL	28.1	78.7	100.9	151.5	50.6	83.2	202.8	312.0
		7	Operating	Multiple cy	ghouse, pu	1	1/1/1995	7,646	99.7	99.7	0.020	4.8	0.0	NL	0.0	NL	28.1	78.7	100.9	151.5	50.6	88.2	214.9	330.6
		8	Operating	ingle cyclo	ghouse, pu	1	4/1/1991	7,802	99.7	99.7	0.010	1.4	0.0	NL	0.0	NL	7.7	21.5	27.5	41.3	13.8	NL	NL	NL
6147	Monticello	1	Operating	Electrostatic precipitat		1	12/1/1974	7,875	99.3	99.3	0.070	871.4	279.0	130.5	114.0	7.4	NL	NL	NL	NL	NL	NL	NL	NL
		2	Operating	Electrostatic precipitat		1	12/1/1975	8,496	99.6	99.6	0.070	935.8	299.6	140.1	122.4	8.0	NL	NL	NL	NL	NL	NL	NL	NL
10640	ockton Cog	FGPC1	Operating (in commercial service or out of service less than 365 days)	ingle cyclo	ghouse, pu	1	5/1/1987	8,321	99.9	99.9	0.010	NL	NL	NL	NL	NL	1.2	30.8	5.9	35.5	29.6	NL	NL	NL
50039	vnship Cog	1	Operating	ingle cyclo	ghouse, pu	1	11/1/1989	6,215	95.9	NL	0.030	NL	NL	NL	NL	NL	32.9	65.4	103.3	135.7	32.5	NL	NL	NL
50189	euser Plym	ESP1CB	Operating (in commercial service or out of service less than 365 days)	not side, wi	ghouse, pu	1	6/1/1993	8,147	99.5	99.5	0.090	8.1	0.0	NL	58.0	NL	NL	NL	NL	NL	NL	9.7	21.9	32.4
50812	tainer Onto	ESP	Operating (in commercial service or out of service less than 365 days)	not side, wi	ghouse, pu	1	4/1/1983	8,500	94.0	98.0	0.020	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
Grand Total						27	794989	211,318	99.1	99.4	0.880	3,610.2	1,619.2	650.3	621.3	41.0	727.2	5,937.0	1,807.5	7,025.7	5,209.8	539.0	1,206.9	1,665.5

PM2.5 Emission Allowable (tons)	PM10 Emission Allowable (tons)	PM2.5 Emission Typical (tons)	PM10 Emission Typical (tons)	Fraction of PM2.5 in Controlled PM Emissions	Average of Design FGP Collection Efficiency (%)	Design Particulate Emission Rate (lb/h)	Design FGP Collector Exit Gas Flow Rate (acfm)	Design FGP Collector Exit Gas Temperature (deg F)	Average of Design Fuel Spec for Coal Ash (%)	Average of Design Fuel Spec for Coal Sulfur (%)	FGP Collector Installed Cost (1000 $)	Intermingled Ash By-Product Sales Revenue (1000 $)	Bottom Ash By-Product Sales Revenue (1000 $)	Fly Ash By-Product Sales Revenue (1000 $)	Total Ash Collection and Disposal O&M Costs (1000 $)
265.7	597.8	22.1	49.8	0.3	99.9	25	1,070,000	320	13.2	0.8	15500	NL	NL	NL	676.2
291.9	656.8	24.3	54.7	0.3	99.9	25	1,070,000	320	13.2	0.8	11500	NL	NL	NL	751.9
260.6	521.2	94.8	189.5	0.5	99.5	25	585,000	325	10.0	0.7	8570	NL	NL	NL	366.4
261.9	523.8	95.2	190.5	0.5	99.5	25	585,000	325	10.0	0.7	8570	NL	NL	NL	366.6
254.7	509.5	92.6	185.3	0.5	99.5	25	585,000	325	10.0	0.7	8570	NL	NL	NL	356.6
288.8	577.6	105.0	210.0	0.5	99.5	25	585,000	325	10.0	0.7	8570	NL	NL	NL	403.7
293.8	587.7	106.8	213.7	0.5	99.5	25	585,000	325	10.0	0.7	8570	NL	NL	NL	410.9
286.2	572.4	130.1	260.2	0.5	99.5	25	585,000	325	10.0	0.7	8570	NL	NL	NL	400.1
249.4	498.9	113.4	226.8	0.5	99.5	25	585,000	325	10.0	0.7	8570	NL	NL	NL	353.1
276.2	552.5	125.6	251.1	0.5	99.5	25	585,000	325	10.0	0.7	8570	NL	NL	NL	386.9
284.6	569.2	129.4	258.7	0.5	99.5	25	585,000	325	10.0	0.7	8570	NL	NL	NL	398.0
20.9	47.0	3.8	8.5	0.3	99.0	20	361,000	750	7.5	1.0	1745	NL	NL	NL	180.9
NL	NL	NL	NL	NL	99.2	12	222,000	350	30.0	0.8	1410	NL	1.358866	1.956767	68.8
NL	NL	NL	NL	NL	99.2	12	222,000	350	30.0	0.8	1410	NL	1.462823	2.106465	74.0
NL	NL	NL	NL	NL	99.2	12	222,000	350	30.0	0.8	1198	NL	1.448797	2.086268	73.3
NL	NL	NL	NL	NL	99.2	12	222,000	350	30.0	0.8	1198	NL	22.27352	32.07387	249.6
NL	NL	NL	NL	NL	98.2	1,707	2,074,000	335	10.4	0.6	53704	878.5335	NL	NL	2,628.9
NL	NL	NL	NL	NL	98.2	1,707	2,074,000	335	10.4	0.6	47269	815.4665	NL	NL	2,440.1
109.3	266.4	3.6	8.9	0.3	100.0	13	103,223	306	5.6	3.2	1681	NL	NL	NL	0.0
119.0	290.1	4.0	9.7	0.3	100.0	15	91,966	323	5.6	3.2	1681	NL	NL	NL	0.0
NL	NL	NL	NL	NL	100.0	1	65,779	257	5.6	3.2	1010	NL	NL	NL	0.0
NL	NL	NL	NL	NL	99.0	1,700	2,300,000	335	14.0	0.6	8995	626.1526	NL	NL	3,485.8
NL	NL	NL	NL	NL	99.0	1,700	2,300,000	335	14.0	0.6	8427	672.4146	NL	NL	3,743.4
NL	NL	NL	NL	NL	99.9	10	260,000	300	7.4	0.2	2000	NL	NL	NL	NL
NL	NL	NL	NL	NL	99.9	20	175,000	375	55.0	0.4	NL	NL	NL	NL	NL
109.5	246.4	48.0	108.0	0.3	99.5	114	NL	500	6.5	0.8	NL	NL	NL	NL	NL
NL	NL	NL	NL	NL	99.1	27	160,000	275	8.0	1.5	3200	NL	NL	NL	NL
3,372.6	7,017.1	1,098.8	2,225.4	6.2	99.4	7,357	########	9,391	14.3	1.0	239058	2992.567	26.54401	38.22338	17,815.3

Plant Name	FGD Unit Status	SO2 Emission Standard	Average of Design Fuel Spec for Coal Sulfur (%)
Cross	New unit u	0.13	2.5
	New unit u	0.13	2.5
Hayden	Operating (	0.13	0.4
	Operating (	0.13	0.4
Council Blu	New unit u	0.1	0.6
Hawthorn	Operating (	0.12	0.3
Seward	Operating (	0.01	2.9
	Operating (	0.01	2.9
Navajo	Operating (	0.1	0.6
	Operating (	0.1	0.6
	Operating (	0.1	0.6
Craig	Operating (	0.01	0.6
	Operating (	0.01	0.6
Hunter	Operating (	0.12	0.6
Intermount	Operating (	0.138	0.6
	Operating (	0.138	0.6
Clover	Operating (	0.1	2
	Operating (	0.1	2
Bonanza	Operating (	0.1	0.5
Cogentrix c	Operating (	0.13	NL
	Operating (	0.13	NL
	Operating (	0.13	NL
	Operating (	0.13	NL
	Operating (	0.13	NL
	Operating (	0.13	NL
	Operating (	0.13	NL
	Operating (	0.13	NL
Birchwood	Operating (	0.1	1