



1977 ANNUAL PLANT DESIGN SURVEY

Fossil-Fired Central Stations	S-2
Nuclear Central Stations	S-8
Gas Turbines	S-9
Industrial Steam	S-12
Compressed Air	S-15
Design Intangibles	S-20

29. 2000

MANUFACTurers

```

10  # Create a new instance of the class
11  obj = MyClass()
12
13  # Print the instance variables
14  print(obj.__dict__)
15
16  # Print the class variables
17  print(MyClass.__dict__)
18
19  # Print the class name
20  print(MyClass.__name__)
21
22  # Print the class module
23  print(MyClass.__module__)
24
25  # Print the class docstring
26  print(MyClass.__doc__)
27
28  # Print the class methods
29  print(MyClass.__dict__.get('__methods__'))
30
31  # Print the class attributes
32  print(MyClass.__dict__.get('__dict__'))
33
34  # Print the class properties
35  print(MyClass.__dict__.get('__properties__'))
36
37  # Print the class constants
38  print(MyClass.__dict__.get('__constants__'))
39
40  # Print the class static methods
41  print(MyClass.__dict__.get('__staticmethods__'))
42
43  # Print the class class methods
44  print(MyClass.__dict__.get('__classmethods__'))
45
46  # Print the class magic methods
47  print(MyClass.__dict__.get('__magicmethods__'))
48
49  # Print the class special methods
50  print(MyClass.__dict__.get('__specialmethods__'))
51
52  # Print the class private methods
53  print(MyClass.__dict__.get('__privatemethods__'))
54
55  # Print the class protected methods
56  print(MyClass.__dict__.get('__protectedmethods__'))
57
58  # Print the class public methods
59  print(MyClass.__dict__.get('__publicmethods__'))
60
61  # Print the class private attributes
62  print(MyClass.__dict__.get('__privateattributes__'))
63
64  # Print the class protected attributes
65  print(MyClass.__dict__.get('__protectedattributes__'))
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67  # Print the class public attributes
68  print(MyClass.__dict__.get('__publicattributes__'))
69
70  # Print the class private constants
71  print(MyClass.__dict__.get('__privateconstants__'))
72
73  # Print the class protected constants
74  print(MyClass.__dict__.get('__protectedconstants__'))
75
76  # Print the class public constants
77  print(MyClass.__dict__.get('__publicconstants__'))
78
79  # Print the class private static methods
80  print(MyClass.__dict__.get('__privatestaticmethods__'))
81
82  # Print the class protected static methods
83  print(MyClass.__dict__.get('__protectedstaticmethods__'))
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85  # Print the class public static methods
86  print(MyClass.__dict__.get('__publicstaticmethods__'))
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88  # Print the class private class methods
89  print(MyClass.__dict__.get('__privateclassmethods__'))
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91  # Print the class protected class methods
92  print(MyClass.__dict__.get('__protectedclassmethods__'))
93
94  # Print the class public class methods
95  print(MyClass.__dict__.get('__publicclassmethods__'))
96
97  # Print the class private magic methods
98  print(MyClass.__dict__.get('__privatemagicmethods__'))
99
100 # Print the class protected magic methods
101 print(MyClass.__dict__.get('__protectedmagicmethods__'))
102
103 # Print the class public magic methods
104 print(MyClass.__dict__.get('__publicmagicmethods__'))
105
106 # Print the class private special methods
107 print(MyClass.__dict__.get('__privatespecialmethods__'))
108
109 # Print the class protected special methods
110 print(MyClass.__dict__.get('__protectedspecialmethods__'))
111
112 # Print the class public special methods
113 print(MyClass.__dict__.get('__publicspecialmethods__'))
114
115 # Print the class private private methods
116 print(MyClass.__dict__.get('__privateprivatemethods__'))
117
118 # Print the class protected private methods
119 print(MyClass.__dict__.get('__protectedprivatemethods__'))
120
121 # Print the class public private methods
122 print(MyClass.__dict__.get('__publicprivatemethods__'))
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124 # Print the class private protected methods
125 print(MyClass.__dict__.get('__privateprotectedmethods__'))
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127 # Print the class protected protected methods
128 print(MyClass.__dict__.get('__protectedprotectedmethods__'))
129
130 # Print the class public protected methods
131 print(MyClass.__dict__.get('__publicprotectedmethods__'))
132
133 # Print the class private public methods
134 print(MyClass.__dict__.get('__privatepublicmethods__'))
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136 # Print the class protected public methods
137 print(MyClass.__dict__.get('__protectedpublicmethods__'))
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139 # Print the class public public methods
140 print(MyClass.__dict__.get('__publicpublicmethods__'))
141
142 # Print the class private private attributes
143 print(MyClass.__dict__.get('__privateprivateattributes__'))
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145 # Print the class protected private attributes
146 print(MyClass.__dict__.get('__protectedprivateattributes__'))
147
148 # Print the class public private attributes
149 print(MyClass.__dict__.get('__publicprivateattributes__'))
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151 # Print the class private protected attributes
152 print(MyClass.__dict__.get('__privateprotectedattributes__'))
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154 # Print the class protected protected attributes
155 print(MyClass.__dict__.get('__protectedprotectedattributes__'))
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157 # Print the class public protected attributes
158 print(MyClass.__dict__.get('__publicprotectedattributes__'))
159
160 # Print the class private public attributes
161 print(MyClass.__dict__.get('__privatepublicattributes__'))
162
163 # Print the class protected public attributes
164 print(MyClass.__dict__.get('__protectedpublicattributes__'))
165
166 # Print the class public public attributes
167 print(MyClass.__dict__.get('__publicpublicattributes__'))
168
169 # Print the class private private constants
170 print(MyClass.__dict__.get('__privateprivateconstants__'))
171
172 # Print the class protected private constants
173 print(MyClass.__dict__.get('__protectedprivateconstants__'))
174
175 # Print the class public private constants
176 print(MyClass.__dict__.get('__publicprivateconstants__'))
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178 # Print the class private protected constants
179 print(MyClass.__dict__.get('__privateprotectedconstants__'))
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181 # Print the class protected protected constants
182 print(MyClass.__dict__.get('__protectedprotectedconstants__'))
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191 print(MyClass.__dict__.get('__protectedpublicconstants__'))
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193 # Print the class public public constants
194 print(MyClass.__dict__.get('__publicpublicconstants__'))
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196 # Print the class private private static methods
197 print(MyClass.__dict__.get('__privateprivatestaticmethods__'))
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199 # Print the class protected private static methods
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202 # Print the class public private static methods
203 print(MyClass.__dict__.get('__publicprivatestaticmethods__'))
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205 # Print the class private protected static methods
206 print(MyClass.__dict__.get('__privateprotectedstaticmethods__'))
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208 # Print the class protected protected static methods
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211 # Print the class public protected static methods
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217 # Print the class protected public static methods
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220 # Print the class public public static methods
221 print(MyClass.__dict__.get('__publicpublicstaticmethods__'))
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223 # Print the class private private class methods
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245 # Print the class public public class methods
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248 # Print the class private private magic methods
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251 # Print the class protected private magic methods
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254 # Print the class public private magic methods
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272 # Print the class public public magic methods
273 print(MyClass.__dict__.get('__publicpublicmagicmethods__'))
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275 # Print the class private private special methods
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278 # Print the class protected private special methods
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281 # Print the class public private special methods
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299 # Print the class public public special methods
300 print(MyClass.__dict__.get('__publicpublicspecialmethods__'))
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302 # Print the class private private private methods
303 print(MyClass.__dict__.get('__privateprivateprivatemethods__'))
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305 # Print the class protected private private methods
306 print(MyClass.__dict__.get('__protectedprivateprivatemethods__'))
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308 # Print the class public private private methods
309 print(MyClass.__dict__.get('__publicprivateprivatemethods__'))
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312 # Print the class protected protected private methods
313 print(MyClass.__dict__.get('__protectedprotectedprivatemethods__'))
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315 # Print the class public protected private methods
316 print(MyClass.__dict__.get('__publicprotectedprivatemethods__'))
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318 # Print the class private public private methods
319 print(MyClass.__dict__.get('__privatepublicprivatemethods__'))
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319 # Print the class protected public private methods
320 print(MyClass.__dict__.get('__protectedpublicprivatemethods__'))
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320 # Print the class public public private methods
321 print(MyClass.__dict__.get('__publicpublicprivatemethods__'))
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321 # Print the class private private protected methods
322 print(MyClass.__dict__.get('__privateprivateprotectedmethods__'))
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323 # Print the class public private protected methods
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324 # Print the class private protected protected methods
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326 # Print the class public protected protected methods
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328 # Print the class protected public protected methods
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337 # Print the class protected public public methods
338 print(MyClass.__dict__.get('__protectedpublicpublicmethods__'))
338
338 # Print the class public public public methods
339 print(MyClass.__dict__.get('__publicpublicpublicmethods__'))
339
339 # Print the class private private private constants
340 print(MyClass.__dict__.get('__privateprivateprivateconstants__'))
340
340 # Print the class protected private private constants
341 print(MyClass.__dict__.get('__
```

SYMBOLS

```

1  # 2017-03-19
2  # 2017-03-19
3  # 2017-03-19
4  # 2017-03-19
5  # 2017-03-19
6  # 2017-03-19
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```

1	1	Tuesday
2	2	Wednesday
3	3	Thursday
4	4	Friday
5	5	Saturday
6	6	Sunday
7	7	Monday
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14	14	Monday
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18	18	Friday
19	19	Saturday
20	20	Sunday
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26	26	Saturday
27	27	Sunday
28	28	Monday
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37	37	Wednesday
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93	93	Wednesday
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96	96	Saturday
97	97	Sunday
98	98	Monday
99	99	Tuesday
100	100	Wednesday

...more often today than in recent years

[illegible]

Multiple feedpumps improve

MANUFACTURERS

[illegible]

100A	Power Co
101	Wiegand & Terry Inc
102	Co Development Inc
103	Temple Hard Co
104	City's Water Treatment Co
105	Louis All's Co
106	Edge Control Inc
107	Chicago American Co
108	LA Water Treatment Co
109	Watts & Northrup Co
110	Marx Co
111	Marx Co
112	Marx and Robinson & Bruckner Co
113	Marx Co
114	Reading Engineering Co
115	Marx Co
116	Decker Industries Pacific Pumps Co
117	Construction Engineering Co. Raymond Co.
118	Decker Co. Inc
119	Ray, Otter Co
120	East of SF & Portland
121	United Associated Products
122	Washington Electric Co. of Everett Co.
123	Northwestern Engineering Co
124	Edwards Co
125	United Products & Air Services Co
126	West Electric Electric Co
127	Ames Electric Inc
128	Armstrong Pump International Inc
129	Industrial Electric Co
130	Western Electric Co
131	Industrial Electric Co

SYMBOLS

[illegible]

EXA	Excess air
FC	Flow control
FE	Flash evaporation
FG	Fumigate
FI	Backhouse filter
G	Natural gas
GR	Gas gas regulation
HT	Horizontal area burner
HT	Horizontal steamline burner
HYD	Hydro
IC	Internal covering
MC	Microcomputer
MS	Steam jet ejector
N	Light
OS	One and one stone grinding
M	Motor
MAN	Monitoring and analysis
MAP	Monitoring, analysis and part air control
ME	Mechanical collector
MFR	Monitoring flow
N	Name
NAC	Natural gas regulation
NAD	Not available
NAL	Not available
NAG	Negligible
O	Oil
OCE	Ocean
OTA	Overheat
OR	On-line or off-line cooking pond
OR	Pressure loss
REG	Regulator
RI	Return stream
RO	Rotary dump or blower
RO	Reverse bypass
RO	Rotary discharging dump
RSO	Residual oil
SC	Speed control

Reliability of large coal-fired boilers

CONTROL				BOILER FEATURES				Emissions				Pollution Control				Project								
Manufacturer	Year	Capacity	Model	Boiler pressure (ksi)	Model/Boiler	Heat input (MMBtu/hr)	Type	Heat rate (Btu/kWh)	Model/Boiler	Type	Control valve (DIN)	Boiler (DIN)	Design (DIN)	Maximum sulfur content (%)	Stack height (ft)	Particulate control equipment type	Particulate control efficiency (%)	SO ₂ removal equipment type	SO ₂ removal efficiency (%)	NO _x reduction technique	Cooling water source	Cooling water treatment	Cooling tower type	Cooling tower rate
1	1978	1,000	1000	15.0	1000	100,000	Water-tube	10,000	1000	Water-tube	1000	1000	1000	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
2	1979	1,200	1200	15.0	1200	120,000	Water-tube	10,000	1200	Water-tube	1200	1200	1200	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
3	1980	1,500	1500	15.0	1500	150,000	Water-tube	10,000	1500	Water-tube	1500	1500	1500	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
4	1981	1,800	1800	15.0	1800	180,000	Water-tube	10,000	1800	Water-tube	1800	1800	1800	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
5	1982	2,000	2000	15.0	2000	200,000	Water-tube	10,000	2000	Water-tube	2000	2000	2000	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
6	1983	2,200	2200	15.0	2200	220,000	Water-tube	10,000	2200	Water-tube	2200	2200	2200	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
7	1984	2,500	2500	15.0	2500	250,000	Water-tube	10,000	2500	Water-tube	2500	2500	2500	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
8	1985	2,800	2800	15.0	2800	280,000	Water-tube	10,000	2800	Water-tube	2800	2800	2800	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
9	1986	3,000	3000	15.0	3000	300,000	Water-tube	10,000	3000	Water-tube	3000	3000	3000	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
10	1987	3,200	3200	15.0	3200	320,000	Water-tube	10,000	3200	Water-tube	3200	3200	3200	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
11	1988	3,500	3500	15.0	3500	350,000	Water-tube	10,000	3500	Water-tube	3500	3500	3500	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
12	1989	3,800	3800	15.0	3800	380,000	Water-tube	10,000	3800	Water-tube	3800	3800	3800	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
13	1990	4,000	4000	15.0	4000	400,000	Water-tube	10,000	4000	Water-tube	4000	4000	4000	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
14	1991	4,200	4200	15.0	4200	420,000	Water-tube	10,000	4200	Water-tube	4200	4200	4200	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
15	1992	4,500	4500	15.0	4500	450,000	Water-tube	10,000	4500	Water-tube	4500	4500	4500	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
16	1993	4,800	4800	15.0	4800	480,000	Water-tube	10,000	4800	Water-tube	4800	4800	4800	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
17	1994	5,000	5000	15.0	5000	500,000	Water-tube	10,000	5000	Water-tube	5000	5000	5000	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
18	1995	5,200	5200	15.0	5200	520,000	Water-tube	10,000	5200	Water-tube	5200	5200	5200	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
19	1996	5,500	5500	15.0	5500	550,000	Water-tube	10,000	5500	Water-tube	5500	5500	5500	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
20	1997	5,800	5800	15.0	5800	580,000	Water-tube	10,000	5800	Water-tube	5800	5800	5800	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
21	1998	6,000	6000	15.0	6000	600,000	Water-tube	10,000	6000	Water-tube	6000	6000	6000	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
22	1999	6,200	6200	15.0	6200	620,000	Water-tube	10,000	6200	Water-tube	6200	6200	6200	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
23	2000	6,500	6500	15.0	6500	650,000	Water-tube	10,000	6500	Water-tube	6500	6500	6500	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
24	2001	6,800	6800	15.0	6800	680,000	Water-tube	10,000	6800	Water-tube	6800	6800	6800	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
25	2002	7,000	7000	15.0	7000	700,000	Water-tube	10,000	7000	Water-tube	7000	7000	7000	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
26	2003	7,200	7200	15.0	7200	720,000	Water-tube	10,000	7200	Water-tube	7200	7200	7200	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
27	2004	7,500	7500	15.0	7500	750,000	Water-tube	10,000	7500	Water-tube	7500	7500	7500	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
28	2005	7,800	7800	15.0	7800	780,000	Water-tube	10,000	7800	Water-tube	7800	7800	7800	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
29	2006	8,000	8000	15.0	8000	800,000	Water-tube	10,000	8000	Water-tube	8000	8000	8000	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
30	2007	8,200	8200	15.0	8200	820,000	Water-tube	10,000	8200	Water-tube	8200	8200	8200	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
31	2008	8,500	8500	15.0	8500	850,000	Water-tube	10,000	8500	Water-tube	8500	8500	8500	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
32	2009	8,800	8800	15.0	8800	880,000	Water-tube	10,000	8800	Water-tube	8800	8800	8800	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
33	2010	9,000	9000	15.0	9000	900,000	Water-tube	10,000	9000	Water-tube	9000	9000	9000	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
34	2011	9,200	9200	15.0	9200	920,000	Water-tube	10,000	9200	Water-tube	9200	9200	9200	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
35	2012	9,500	9500	15.0	9500	950,000	Water-tube	10,000	9500	Water-tube	9500	9500	9500	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
36	2013	9,800	9800	15.0	9800	980,000	Water-tube	10,000	9800	Water-tube	9800	9800	9800	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
37	2014	10,000	10000	15.0	10000	1,000,000	Water-tube	10,000	10000	Water-tube	10000	10000	10000	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
38	2015	10,200	10200	15.0	10200	1,020,000	Water-tube	10,000	10200	Water-tube	10200	10200	10200	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
39	2016	10,500	10500	15.0	10500	1,050,000	Water-tube	10,000	10500	Water-tube	10500	10500	10500	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
40	2017	10,800	10800	15.0	10800	1,080,000	Water-tube	10,000	10800	Water-tube	10800	10800	10800	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
41	2018	11,000	11000	15.0	11000	1,100,000	Water-tube	10,000	11000	Water-tube	11000	11000	11000	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
42	2019	11,200	11200	15.0	11200	1,120,000	Water-tube	10,000	11200	Water-tube	11200	11200	11200	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
43	2020	11,500	11500	15.0	11500	1,150,000	Water-tube	10,000	11500	Water-tube	11500	11500	11500	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
44	2021	11,800	11800	15.0	11800	1,180,000	Water-tube	10,000	11800	Water-tube	11800	11800	11800	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
45	2022	12,000	12000	15.0	12000	1,200,000	Water-tube	10,000	12000	Water-tube	12000	12000	12000	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
46	2023	12,200	12200	15.0	12200	1,220,000	Water-tube	10,000	12200	Water-tube	12200	12200	12200	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
47	2024	12,500	12500	15.0	12500	1,250,000	Water-tube	10,000	12500	Water-tube	12500	12500	12500	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
48	2025	12,800	12800	15.0	12800	1,280,000	Water-tube	10,000	12800	Water-tube	12800	12800	12800	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
49	2026	13,000	13000	15.0	13000	1,300,000	Water-tube	10,000	13000	Water-tube	13000	13000	13000	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
50	2027	13,200	13200	15.0	13200	1,320,000	Water-tube	10,000	13200	Water-tube	13200	13200	13200	0.01	100	Electrostatic precipitator	99.9	Wet scrubber	90	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber	Wet scrubber
51	2028	13,500	13500	15.0	13500	1,350,000	Water-tube	10,000	13500	Water-tube	13500	13500	13500	0.01	100	Electrostatic precip								