Central State Hospital

Heating Plant Day Operations Report

12/1/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	22.12	hdd
Total Plant Steam Flow	370.67	klbs
Steam Flow Per Heating Degree Day	16.8	klbs/hdd
Total Condensate Return Water Flow	4.5	klbs
Total Plant Gas Flow	428.14	kscf
Total Plant Gas Cost	$2,629.13	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$2,629.13	$
Fuel Cost Per Heating Degree Day	$118.83	$/hdd
Plant Average Steam Cost Per Degree Day	$0.32	$/klbs
Total Plant Efficiency By I/O	84.8	%
Condensate Transfer Pump #1 Run Time	5.8	hrs
Condensate Transfer Pump #2 Run Time	0.0	hrs
Condensate Transfer Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.3	23.5	0.0	0.0	hrs
Steam Flow	0.00	370.67	0.00	0.00	klbs
Gas Flow	1.38	426.77	0.00	0.00	kscf
Natural Gas Cost	$8.45	$2,620.68	$0.00	$0.00	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$8.45	$2,620.68	$0.00	$0.00	$
Average Steam Cost	---	$7.07	---	---	$/klbs
Efficiency By Losses	72.7	79.5	0.0	0.0	%
Efficiency By I/O		85.1			%

Central State Hospital

Heating Plant Day Operations Report

12/2/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	20.57	hdd
Total Plant Steam Flow	352.09	klbs
Steam Flow Per Heating Degree Day	17.1	klbs/hdd
Total Condensate Return Water Flow	4.7	klbs
Total Plant Gas Flow	407.86	kscf
Total Plant Gas Cost	$2,504.58	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$2,504.58	$
Fuel Cost Per Heating Degree Day	$121.78	$/hdd
Plant Average Steam Cost Per Degree Day	$0.35	$/klbs
Total Plant Efficiency By I/O	84.5	%

Condensate Transfer Pump #1 Run Time	16.6	hrs
Condensate Transfer Pump #2 Run Time	0.0	hrs
Condensate Transfer Pump #3 Run Time	8.3	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.3	23.5	0.0	0.0	hrs
Steam Flow	0.00	352.09	0.00	0.00	klbs
Gas Flow	1.68	406.18	0.00	0.00	kscf
Natural Gas Cost	$10.33	$2,494.25	$0.00	$0.00	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$10.33	$2,494.25	$0.00	$0.00	$
Average Steam Cost	---	$7.08	---	---	$/klbs
Efficiency By Losses	81.2	79.7	0.0	0.0	%
Efficiency By I/O		84.9			%

Central State Hospital

Heating Plant Day Operations Report

12/3/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	9.42	hdd
Total Plant Steam Flow	305.07	klbs
Steam Flow Per Heating Degree Day	32.4	klbs/hdd
Total Condensate Return Water Flow	5.4	klbs
Total Plant Gas Flow	353.33	kscf
Total Plant Gas Cost	$2,169.72	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$2,169.72	$
Fuel Cost Per Heating Degree Day	$230.28	$/hdd
Plant Average Steam Cost Per Degree Day	$0.75	$/klbs
Total Plant Efficiency By I/O	84.6	%

Condensate Transfer Pump #1 Run Time	23.5	hrs
Condensate Transfer Pump #2 Run Time	0.0	hrs
Condensate Transfer Pump #3 Run Time	0.0	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.2	23.5	0.0	0.0	hrs
Steam Flow	0.00	305.07	0.00	0.00	klbs
Gas Flow	0.98	352.35	0.00	0.00	kscf
Natural Gas Cost	$6.05	$2,163.67	$0.00	$0.00	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$6.05	$2,163.67	$0.00	$0.00	$
Average Steam Cost	---	$7.09	---	---	$/klbs
Efficiency By Losses	79.5	80.2	0.0	0.0	%
Efficiency By I/O		84.8			%

Central State Hospital

Heating Plant Day Operations Report

12/4/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	13.42	hdd
Total Plant Steam Flow	340.51	klbs
Steam Flow Per Heating Degree Day	25.4	klbs/hdd
Total Condensate Return Water Flow	4.7	klbs
Total Plant Gas Flow	392.19	kscf
Total Plant Gas Cost	$2,408.33	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$2,408.33	$
Fuel Cost Per Heating Degree Day	$179.43	$/hdd
Plant Average Steam Cost Per Degree Day	$0.53	$/klbs
Total Plant Efficiency By I/O	85.0	%

Condensate Transfer Pump #1 Run Time	23.5	hrs
Condensate Transfer Pump #2 Run Time	3.2	hrs
Condensate Transfer Pump #3 Run Time	0.0	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.3	23.5	0.0	0.0	hrs
Steam Flow	0.00	340.51	0.00	0.00	klbs
Gas Flow	1.36	390.83	0.00	0.00	kscf
Natural Gas Cost	$8.33	$2,400.00	$0.00	$0.00	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$8.33	$2,400.00	$0.00	$0.00	$
Average Steam Cost	---	$7.05	---	---	$/klbs
Efficiency By Losses	72.6	79.7	0.0	0.0	%
Efficiency By I/O		85.3			%

Central State Hospital

Heating Plant Day Operations Report

12/5/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	25.71	hdd
Total Plant Steam Flow	382.00	klbs
Steam Flow Per Heating Degree Day	14.9	klbs/hdd
Total Condensate Return Water Flow	4.6	klbs
Total Plant Gas Flow	438.63	kscf
Total Plant Gas Cost	$2,693.52	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$2,693.52	$
Fuel Cost Per Heating Degree Day	$104.78	$/hdd
Plant Average Steam Cost Per Degree Day	$0.27	$/klbs
Total Plant Efficiency By I/O	85.3	%

Condensate Transfer Pump #1 Run Time	23.5	hrs
Condensate Transfer Pump #2 Run Time	7.6	hrs
Condensate Transfer Pump #3 Run Time	0.0	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.3	23.5	0.0	0.0	hrs
Steam Flow	0.00	382.00	0.00	0.00	klbs
Gas Flow	1.66	436.97	0.00	0.00	kscf
Natural Gas Cost	$10.17	$2,683.35	$0.00	$0.00	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$10.17	$2,683.35	$0.00	$0.00	$
Average Steam Cost	---	$7.02	---	---	$/klbs
Efficiency By Losses	74.6	79.4	0.0	0.0	%
Efficiency By I/O		85.6			%

Central State Hospital

Heating Plant Day Operations Report

12/6/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	32.63	hdd
Total Plant Steam Flow	415.00	klbs
Steam Flow Per Heating Degree Day	12.7	klbs/hdd
Total Condensate Return Water Flow	1.9	klbs
Total Plant Gas Flow	481.71	kscf
Total Plant Gas Cost	$2,958.04	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.03	$
Total Plant Fuel Cost	$2,958.07	$
Fuel Cost Per Heating Degree Day	$90.65	$/hdd
Plant Average Steam Cost Per Degree Day	$0.22	$/klbs
Total Plant Efficiency By I/O	84.4	%

Condensate Transfer Pump #1 Run Time	23.5	hrs
Condensate Transfer Pump #2 Run Time	7.6	hrs
Condensate Transfer Pump #3 Run Time	0.0	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.4	1.9	0.0	23.0	hrs
Steam Flow	0.00	21.70	0.00	393.30	klbs
Gas Flow	1.89	28.37	0.00	451.45	kscf
Natural Gas Cost	$11.62	$174.19	$0.00	$2,772.22	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.03	$
Total Fuel Cost	$11.62	$174.19	$0.00	$2,772.25	$
Average Steam Cost	---	$8.03	---	$7.05	$/klbs
Efficiency By Losses	74.5	76.1	0.0	81.4	%
Efficiency By I/O		74.9		85.3	%

Central State Hospital

Heating Plant Day Operations Report

12/7/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	32.89	hdd
Total Plant Steam Flow	422.70	klbs
Steam Flow Per Heating Degree Day	12.9	klbs/hdd
Total Condensate Return Water Flow	1.5	klbs
Total Plant Gas Flow	484.16	kscf
Total Plant Gas Cost	$2,973.10	$
Total Plant Oil Flow	0.5	gals
Total Plant Oil Cost	$1.90	$
Total Plant Fuel Cost	$2,975.00	$
Fuel Cost Per Heating Degree Day	$90.46	$/hdd
Plant Average Steam Cost Per Degree Day	$0.21	$/klbs
Total Plant Efficiency By I/O	85.5	%
Condensate Transfer Pump #1 Run Time	23.5	hrs
Condensate Transfer Pump #2 Run Time	7.1	hrs
Condensate Transfer Pump #3 Run Time	0.0	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.3	0.8	0.0	23.5	hrs
Steam Flow	0.00	0.00	0.00	422.70	klbs
Gas Flow	1.64	3.99	0.00	478.53	kscf
Natural Gas Cost	$10.05	$24.52	$0.00	$2,938.53	$
Oil Flow	0.0	0.0	0.0	0.5	gals
Oil Cost	$0.00	$0.00	$0.00	$1.90	$
Total Fuel Cost	$10.05	$24.52	$0.00	$2,940.42	$
Average Steam Cost	—	—	—	$6.96	$/klbs
Efficiency By Losses	80.3	73.3	0.0	81.4	%
Efficiency By I/O				86.5	%

Central State Hospital

Heating Plant Day Operations Report

12/8/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	28.39	hdd
Total Plant Steam Flow	410.96	klbs
Steam Flow Per Heating Degree Day	14.5	klbs/hdd
Total Condensate Return Water Flow	1.5	klbs
Total Plant Gas Flow	471.53	kscf
Total Plant Gas Cost	$2,895.57	$
Total Plant Oil Flow	0.2	gals
Total Plant Oil Cost	$0.70	$
Total Plant Fuel Cost	$2,896.27	$
Fuel Cost Per Heating Degree Day	$102.00	$/hdd
Plant Average Steam Cost Per Degree Day	$0.25	$/klbs
Total Plant Efficiency By I/O	85.3	%

Condensate Transfer Pump #1 Run Time	23.5	hrs
Condensate Transfer Pump #2 Run Time	6.8	hrs
Condensate Transfer Pump #3 Run Time	0.0	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.3	0.8	0.0	23.5	hrs
Steam Flow	0.00	0.00	0.00	410.96	klbs
Gas Flow	1.63	3.90	0.00	466.01	kscf
Natural Gas Cost	$10.02	$23.94	$0.00	$2,861.62	$
Oil Flow	0.0	0.0	0.0	0.2	gals
Oil Cost	$0.00	$0.00	$0.00	$0.70	$
Total Fuel Cost	$10.02	$23.94	$0.00	$2,862.32	$
Average Steam Cost	---	---	---	$6.96	$/klbs
Efficiency By Losses	78.7	75.0	0.0	81.3	%
Efficiency By I/O				86.4	%

Central State Hospital

Heating Plant Day Operations Report

12/9/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	30.60	hdd
Total Plant Steam Flow	404.21	klbs
Steam Flow Per Heating Degree Day	13.2	klbs/hdd
Total Condensate Return Water Flow	2.1	klbs
Total Plant Gas Flow	463.17	kscf
Total Plant Gas Cost	$2,844.21	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$2,844.21	$
Fuel Cost Per Heating Degree Day	$92.95	$/hdd
Plant Average Steam Cost Per Degree Day	$0.23	$/klbs
Total Plant Efficiency By I/O	85.5	%
Condensate Transfer Pump #1 Run Time	9.8	hrs
Condensate Transfer Pump #2 Run Time	16.4	hrs
Condensate Transfer Pump #3 Run Time	0.0	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.4	0.9	0.0	23.5	hrs
Steam Flow	0.00	0.00	0.00	404.21	klbs
Gas Flow	1.96	4.31	0.00	456.90	kscf
Natural Gas Cost	$12.01	$26.46	$0.00	$2,805.73	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$12.01	$26.46	$0.00	$2,805.73	$
Average Steam Cost	---	---	---	$6.94	$/klbs
Efficiency By Losses	76.6	74.0	0.0	81.3	%
Efficiency By I/O				86.6	%

Central State Hospital

Heating Plant Day Operations Report

12/10/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	49.84	hdd
Total Plant Steam Flow	320.57	klbs
Steam Flow Per Heating Degree Day	6.4	klbs/hdd
Total Condensate Return Water Flow	4.8	klbs
Total Plant Gas Flow	400.52	kscf
Total Plant Gas Cost	$2,459.48	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$2,459.48	$
Fuel Cost Per Heating Degree Day	$49.35	$/hdd
Plant Average Steam Cost Per Degree Day	$0.15	$/klbs
Total Plant Efficiency By I/O	78.4	%
Condensate Transfer Pump #1 Run Time	4.7	hrs
Condensate Transfer Pump #2 Run Time	12.3	hrs
Condensate Transfer Pump #3 Run Time	13.9	hrs
Boiler Feed Pump #1 Run Time	23.4	hrs
Boiler Feed Pump #2 Run Time	23.4	hrs
Boiler Feed Pump #3 Run Time	22.5	hrs
Boiler Feed Pump #4 Run Time	22.5	hrs
Fuel Oil Pump #1 Run Time	23.4	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	12.2	6.0	2.9	7.7	hrs
Steam Flow	151.77	26.79	0.00	142.01	klbs
Gas Flow	194.29	34.63	11.25	160.35	kscf
Natural Gas Cost	$1,193.11	$212.63	$69.08	$984.66	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$1,193.11	$212.63	$69.08	$984.66	$
Average Steam Cost	$7.86	$7.94	---	$6.93	$/klbs
Efficiency By Losses	81.0	0.0	84.6	0.0	%
Efficiency By I/O	76.5	75.8		86.7	%

Central State Hospital

Heating Plant Day Operations Report

12/11/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	34.85	hdd
Total Plant Steam Flow	467.43	klbs
Steam Flow Per Heating Degree Day	13.4	klbs/hdd
Total Condensate Return Water Flow	1.3	klbs
Total Plant Gas Flow	546.02	kscf
Total Plant Gas Cost	$3,352.97	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$3,352.97	$
Fuel Cost Per Heating Degree Day	$96.22	$/hdd
Plant Average Steam Cost Per Degree Day	$0.21	$/klbs
Total Plant Efficiency By I/O	83.8	%

Condensate Transfer Pump #1 Run Time	0.0	hrs
Condensate Transfer Pump #2 Run Time	23.5	hrs
Condensate Transfer Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	23.5	0.0	0.7	21.1	hrs
Steam Flow	230.54	0.00	0.00	236.89	klbs
Gas Flow	256.76	0.00	2.76	286.50	kscf
Natural Gas Cost	$1,576.71	$0.00	$16.93	$1,759.33	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$1,576.71	$0.00	$16.93	$1,759.33	$
Average Steam Cost	$6.84	---	---	$7.43	$/klbs
Efficiency By Losses	81.3	0.0	74.9	81.5	%
Efficiency By I/O	87.9			81.0	%

Central State Hospital

Heating Plant Day Operations Report

12/12/2018
8:01 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	0.00	hdd
Total Plant Steam Flow	10.81	klbs
Steam Flow Per Heating Degree Day	---	klbs/hdd
Total Condensate Return Water Flow	0.0	klbs
Total Plant Gas Flow	13.27	kscf
Total Plant Gas Cost	$81.48	$
Total Plant Oil Flow	0.4	gals
Total Plant Oil Cost	$1.37	$
Total Plant Fuel Cost	$82.85	$
Fuel Cost Per Heating Degree Day	---	$/hdd
Plant Average Steam Cost Per Degree Day	---	$/klbs
Total Plant Efficiency By I/O	79.5	%

Condensate Transfer Pump #1 Run Time	0.0	hrs
Condensate Transfer Pump #2 Run Time	0.5	hrs
Condensate Transfer Pump #3 Run Time	0.5	hrs
Boiler Feed Pump #1 Run Time	0.5	hrs
Boiler Feed Pump #2 Run Time	0.5	hrs
Boiler Feed Pump #3 Run Time	0.5	hrs
Boiler Feed Pump #4 Run Time	0.5	hrs
Fuel Oil Pump #1 Run Time	0.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.0	0.0	0.0	0.5	hrs
Steam Flow	0.00	0.00	0.00	10.81	klbs
Gas Flow	0.00	0.00	0.16	13.10	kscf
Natural Gas Cost	$0.00	$0.00	$1.01	$80.47	$
Oil Flow	0.0	0.0	0.0	0.4	gals
Oil Cost	$0.00	$0.00	$0.00	$1.37	$
Total Fuel Cost	$0.00	$0.00	$1.01	$81.84	$
Average Steam Cost	---	---	---	$7.57	$/klbs
Efficiency By Losses	0.0	0.0	76.0	81.5	%
Efficiency By I/O				80.5	%

Central State Hospital

Heating Plant Day Operations Report

12/13/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	32.07	hdd
Total Plant Steam Flow	417.47	klbs
Steam Flow Per Heating Degree Day	13.0	klbs/hdd
Total Condensate Return Water Flow	3.9	klbs
Total Plant Gas Flow	464.50	kscf
Total Plant Gas Cost	$2,852.39	$
Total Plant Oil Flow	3.0	gals
Total Plant Oil Cost	$11.64	$
Total Plant Fuel Cost	$2,864.03	$
Fuel Cost Per Heating Degree Day	$89.30	$/hdd
Plant Average Steam Cost Per Degree Day	$0.21	$/klbs
Total Plant Efficiency By I/O	87.9	%

Condensate Transfer Pump #1 Run Time	0.0	hrs
Condensate Transfer Pump #2 Run Time	23.5	hrs
Condensate Transfer Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.0	0.0	0.8	23.5	hrs
Steam Flow	0.00	0.00	0.00	417.47	klbs
Gas Flow	0.00	0.00	3.08	461.42	kscf
Natural Gas Cost	$0.00	$0.00	$18.93	$2,833.46	$
Oil Flow	0.0	0.0	0.0	3.0	gals
Oil Cost	$0.00	$0.00	$0.00	$11.64	$
Total Fuel Cost	$0.00	$0.00	$18.93	$2,845.10	$
Average Steam Cost	---	---	---	$6.82	$/klbs
Efficiency By Losses	0.0	0.0	74.0	81.4	%
Efficiency By I/O				88.5	%

Central State Hospital

Heating Plant Day Operations Report

12/14/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	28.58	hdd
Total Plant Steam Flow	404.52	klbs
Steam Flow Per Heating Degree Day	14.2	klbs/hdd
Total Condensate Return Water Flow	4.7	klbs
Total Plant Gas Flow	447.25	kscf
Total Plant Gas Cost	$2,746.47	$
Total Plant Oil Flow	2.2	gals
Total Plant Oil Cost	$8.31	$
Total Plant Fuel Cost	$2,754.77	$
Fuel Cost Per Heating Degree Day	$96.40	$/hdd
Plant Average Steam Cost Per Degree Day	$0.24	$/klbs
Total Plant Efficiency By I/O	88.5	%

Condensate Transfer Pump #1 Run Time	0.0	hrs
Condensate Transfer Pump #2 Run Time	23.5	hrs
Condensate Transfer Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.3	0.0	0.9	23.5	hrs
Steam Flow	0.00	0.00	0.00	404.52	klbs
Gas Flow	1.59	0.00	3.26	442.41	kscf
Natural Gas Cost	$9.74	$0.00	$19.99	$2,716.74	$
Oil Flow	0.0	0.0	0.0	2.2	gals
Oil Cost	$0.00	$0.00	$0.00	$8.31	$
Total Fuel Cost	$9.74	$0.00	$19.99	$2,725.04	$
Average Steam Cost	---	---	---	$6.74	$/klbs
Efficiency By Losses	84.0	0.0	74.3	81.4	%
Efficiency By I/O				89.5	%

Central State Hospital

Heating Plant Day Operations Report

12/15/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	28.99	hdd
Total Plant Steam Flow	394.77	klbs
Steam Flow Per Heating Degree Day	13.6	klbs/hdd
Total Condensate Return Water Flow	5.1	klbs
Total Plant Gas Flow	438.73	kscf
Total Plant Gas Cost	$2,694.13	$
Total Plant Oil Flow	1.3	gals
Total Plant Oil Cost	$4.90	$
Total Plant Fuel Cost	$2,699.03	$
Fuel Cost Per Heating Degree Day	$93.09	$/hdd
Plant Average Steam Cost Per Degree Day	$0.24	$/klbs
Total Plant Efficiency By I/O	88.1	%

Condensate Transfer Pump #1 Run Time	0.0	hrs
Condensate Transfer Pump #2 Run Time	23.5	hrs
Condensate Transfer Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.2	0.0	0.7	23.5	hrs
Steam Flow	0.00	0.00	0.00	394.77	klbs
Gas Flow	1.22	0.00	2.62	434.89	kscf
Natural Gas Cost	$7.49	$0.00	$16.12	$2,670.52	$
Oil Flow	0.0	0.0	0.0	1.3	gals
Oil Cost	$0.00	$0.00	$0.00	$4.90	$
Total Fuel Cost	$7.49	$0.00	$16.12	$2,675.42	$
Average Steam Cost	---	---	---	$6.78	$/klbs
Efficiency By Losses	84.2	0.0	79.2	81.6	%
Efficiency By I/O				88.9	%

Central State Hospital

Heating Plant Day Operations Report

12/16/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	16.91	hdd
Total Plant Steam Flow	356.56	klbs
Steam Flow Per Heating Degree Day	21.1	klbs/hdd
Total Condensate Return Water Flow	5.5	klbs
Total Plant Gas Flow	397.03	kscf
Total Plant Gas Cost	$2,438.07	$
Total Plant Oil Flow	0.4	gals
Total Plant Oil Cost	$1.40	$
Total Plant Fuel Cost	$2,439.47	$
Fuel Cost Per Heating Degree Day	$144.27	$/hdd
Plant Average Steam Cost Per Degree Day	$0.40	$/klbs
Total Plant Efficiency By I/O	87.9	%

Condensate Transfer Pump #1 Run Time	0.0	hrs
Condensate Transfer Pump #2 Run Time	23.5	hrs
Condensate Transfer Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.2	0.0	0.8	23.5	hrs
Steam Flow	0.00	0.00	0.00	356.56	klbs
Gas Flow	1.27	0.00	3.08	392.69	kscf
Natural Gas Cost	$7.77	$0.00	$18.90	$2,411.40	$
Oil Flow	0.0	0.0	0.0	0.4	gals
Oil Cost	$0.00	$0.00	$0.00	$1.40	$
Total Fuel Cost	$7.77	$0.00	$18.90	$2,412.80	$
Average Steam Cost	---	---	---	$6.77	$/klbs
Efficiency By Losses	75.4	0.0	77.2	81.7	%
Efficiency By I/O				88.9	%

Central State Hospital

Heating Plant Day Operations Report

12/17/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	21.85	hdd
Total Plant Steam Flow	363.53	klbs
Steam Flow Per Heating Degree Day	16.6	klbs/hdd
Total Condensate Return Water Flow	5.3	klbs
Total Plant Gas Flow	409.22	kscf
Total Plant Gas Cost	$2,512.92	$
Total Plant Oil Flow	0.2	gals
Total Plant Oil Cost	$0.85	$
Total Plant Fuel Cost	$2,513.76	$
Fuel Cost Per Heating Degree Day	$115.05	$/hdd
Plant Average Steam Cost Per Degree Day	$0.32	$/klbs
Total Plant Efficiency By I/O	87.0	%

Condensate Transfer Pump #1 Run Time	0.0	hrs
Condensate Transfer Pump #2 Run Time	23.5	hrs
Condensate Transfer Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.5	0.0	0.9	23.3	hrs
Steam Flow	1.04	0.00	0.00	362.49	klbs
Gas Flow	5.86	0.00	3.52	399.84	kscf
Natural Gas Cost	$36.01	$0.00	$21.59	$2,455.32	$
Oil Flow	0.0	0.0	0.0	0.2	gals
Oil Cost	$0.00	$0.00	$0.00	$0.85	$
Total Fuel Cost	$36.01	$0.00	$21.59	$2,456.17	$
Average Steam Cost	$34.75	---	---	$6.78	$/klbs
Efficiency By Losses	80.5	0.0	76.3	81.5	%
Efficiency By I/O	17.3			88.8	%

Central State Hospital

Heating Plant Day Operations Report

12/18/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	21.64	hdd
Total Plant Steam Flow	373.79	klbs
Steam Flow Per Heating Degree Day	17.3	klbs/hdd
Total Condensate Return Water Flow	5.3	klbs
Total Plant Gas Flow	416.91	kscf
Total Plant Gas Cost	$2,560.14	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$2,560.14	$
Fuel Cost Per Heating Degree Day	$118.31	$/hdd
Plant Average Steam Cost Per Degree Day	$0.32	$/klbs
Total Plant Efficiency By I/O	87.8	%

Condensate Transfer Pump #1 Run Time	0.0	hrs
Condensate Transfer Pump #2 Run Time	23.5	hrs
Condensate Transfer Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	7.3	0.0	1.0	20.3	hrs
Steam Flow	87.51	0.00	0.00	286.28	klbs
Gas Flow	94.60	0.00	3.56	318.74	kscf
Natural Gas Cost	$580.94	$0.00	$21.89	$1,957.30	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$580.94	$0.00	$21.89	$1,957.30	$
Average Steam Cost	$6.64	---	---	$6.84	$/klbs
Efficiency By Losses	0.0	0.0	79.0	81.5	%
Efficiency By I/O	90.6			88.0	%

Central State Hospital

Heating Plant Day Operations Report

12/19/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	28.95	hdd
Total Plant Steam Flow	393.51	klbs
Steam Flow Per Heating Degree Day	13.6	klbs/hdd
Total Condensate Return Water Flow	5.0	klbs
Total Plant Gas Flow	435.31	kscf
Total Plant Gas Cost	$2,673.11	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$2,673.11	$
Fuel Cost Per Heating Degree Day	$92.35	$/hdd
Plant Average Steam Cost Per Degree Day	$0.23	$/klbs
Total Plant Efficiency By I/O	88.5	%

Condensate Transfer Pump #1 Run Time	0.0	hrs
Condensate Transfer Pump #2 Run Time	23.5	hrs
Condensate Transfer Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.1	0.0	1.1	23.5	hrs
Steam Flow	0.00	0.00	0.00	393.51	klbs
Gas Flow	0.32	0.00	4.23	430.75	kscf
Natural Gas Cost	$1.96	$0.00	$26.00	$2,645.15	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$1.96	$0.00	$26.00	$2,645.15	$
Average Steam Cost	---	---	---	$6.72	$/klbs
Efficiency By Losses	75.5	0.0	76.8	81.4	%
Efficiency By I/O				89.5	%

Central State Hospital

Heating Plant Day Operations Report

12/20/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	29.52	hdd
Total Plant Steam Flow	402.70	klbs
Steam Flow Per Heating Degree Day	13.6	klbs/hdd
Total Condensate Return Water Flow	2.5	klbs
Total Plant Gas Flow	460.91	kscf
Total Plant Gas Cost	$2,830.36	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$2,830.36	$
Fuel Cost Per Heating Degree Day	$95.89	$/hdd
Plant Average Steam Cost Per Degree Day	$0.24	$/klbs
Total Plant Efficiency By I/O	85.6	%

Condensate Transfer Pump #1 Run Time	0.0	hrs
Condensate Transfer Pump #2 Run Time	23.5	hrs
Condensate Transfer Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.3	0.0	1.1	23.5	hrs
Steam Flow	0.00	0.00	0.00	402.70	klbs
Gas Flow	1.49	0.00	3.93	455.49	kscf
Natural Gas Cost	$9.15	$0.00	$24.13	$2,797.08	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$9.15	$0.00	$24.13	$2,797.08	$
Average Steam Cost	---	---	---	$6.95	$/klbs
Efficiency By Losses	82.2	0.0	71.0	81.6	%
Efficiency By I/O				86.6	%

Central State Hospital

Heating Plant Day Operations Report

12/21/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	16.18	hdd
Total Plant Steam Flow	370.78	klbs
Steam Flow Per Heating Degree Day	22.9	klbs/hdd
Total Condensate Return Water Flow	1.6	klbs
Total Plant Gas Flow	429.49	kscf
Total Plant Gas Cost	$2,637.38	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$2,637.38	$
Fuel Cost Per Heating Degree Day	$163.03	$/hdd
Plant Average Steam Cost Per Degree Day	$0.44	$/klbs
Total Plant Efficiency By I/O	84.5	%
Condensate Transfer Pump #1 Run Time	0.0	hrs
Condensate Transfer Pump #2 Run Time	23.5	hrs
Condensate Transfer Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.2	0.0	1.0	23.5	hrs
Steam Flow	0.00	0.00	0.00	370.78	klbs
Gas Flow	1.24	0.00	3.59	424.65	kscf
Natural Gas Cost	$7.62	$0.00	$22.07	$2,607.69	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$7.62	$0.00	$22.07	$2,607.69	$
Average Steam Cost	---	---	---	$7.03	$/klbs
Efficiency By Losses	75.3	0.0	77.8	81.9	%
Efficiency By I/O				85.5	%

Central State Hospital

Heating Plant Day Operations Report

12/22/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	7.36	hdd
Total Plant Steam Flow	332.08	klbs
Steam Flow Per Heating Degree Day	45.1	klbs/hdd
Total Condensate Return Water Flow	1.6	klbs
Total Plant Gas Flow	390.78	kscf
Total Plant Gas Cost	$2,399.69	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$2,399.69	$
Fuel Cost Per Heating Degree Day	$326.02	$/hdd
Plant Average Steam Cost Per Degree Day	$0.98	$/klbs
Total Plant Efficiency By I/O	83.2	%

Condensate Transfer Pump #1 Run Time	0.0	hrs
Condensate Transfer Pump #2 Run Time	23.5	hrs
Condensate Transfer Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.3	0.0	1.2	23.5	hrs
Steam Flow	0.00	0.00	0.00	332.08	klbs
Gas Flow	1.63	0.00	4.29	384.86	kscf
Natural Gas Cost	$10.00	$0.00	$26.33	$2,363.36	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$10.00	$0.00	$26.33	$2,363.36	$
Average Steam Cost	---	---	---	$7.12	$/klbs
Efficiency By Losses	74.8	0.0	76.9	81.7	%
Efficiency By I/O				84.5	%

Central State Hospital

Heating Plant Day Operations Report

12/23/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	21.42	hdd
Total Plant Steam Flow	360.85	klbs
Steam Flow Per Heating Degree Day	16.8	klbs/hdd
Total Condensate Return Water Flow	2.1	klbs
Total Plant Gas Flow	419.47	kscf
Total Plant Gas Cost	$2,575.85	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$2,575.85	$
Fuel Cost Per Heating Degree Day	$120.25	$/hdd
Plant Average Steam Cost Per Degree Day	$0.33	$/klbs
Total Plant Efficiency By I/O	84.2	%

Condensate Transfer Pump #1 Run Time	0.0	hrs
Condensate Transfer Pump #2 Run Time	23.5	hrs
Condensate Transfer Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.3	0.0	1.2	23.5	hrs
Steam Flow	0.00	0.00	0.00	360.85	klbs
Gas Flow	1.68	0.00	4.24	413.55	kscf
Natural Gas Cost	$10.34	$0.00	$26.03	$2,539.48	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$10.34	$0.00	$26.03	$2,539.48	$
Average Steam Cost	---	---	---	$7.04	$/klbs
Efficiency By Losses	78.8	0.0	78.2	81.5	%
Efficiency By I/O				85.5	%

Central State Hospital

Heating Plant Day Operations Report

12/24/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	26.58	hdd
Total Plant Steam Flow	360.01	klbs
Steam Flow Per Heating Degree Day	13.5	klbs/hdd
Total Condensate Return Water Flow	1.9	klbs
Total Plant Gas Flow	417.36	kscf
Total Plant Gas Cost	$2,562.89	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$2,562.89	$
Fuel Cost Per Heating Degree Day	$96.42	$/hdd
Plant Average Steam Cost Per Degree Day	$0.27	$/klbs
Total Plant Efficiency By I/O	84.5	%

Condensate Transfer Pump #1 Run Time	0.0	hrs
Condensate Transfer Pump #2 Run Time	23.5	hrs
Condensate Transfer Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.3	0.0	1.0	23.5	hrs
Steam Flow	0.00	0.00	0.00	360.01	klbs
Gas Flow	1.56	0.00	3.75	412.05	kscf
Natural Gas Cost	$9.55	$0.00	$23.05	$2,530.29	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$9.55	$0.00	$23.05	$2,530.29	$
Average Steam Cost	---	---	---	$7.03	$/klbs
Efficiency By Losses	84.2	0.0	76.0	81.6	%
Efficiency By I/O				85.6	%

Central State Hospital

Heating Plant Day Operations Report

12/25/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	26.03	hdd
Total Plant Steam Flow	377.24	klbs
Steam Flow Per Heating Degree Day	14.5	klbs/hdd
Total Condensate Return Water Flow	1.6	klbs
Total Plant Gas Flow	439.07	kscf
Total Plant Gas Cost	$2,696.23	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$2,696.23	$
Fuel Cost Per Heating Degree Day	$103.58	$/hdd
Plant Average Steam Cost Per Degree Day	$0.27	$/klbs
Total Plant Efficiency By I/O	84.1	%

Condensate Transfer Pump #1 Run Time	0.0	hrs
Condensate Transfer Pump #2 Run Time	23.5	hrs
Condensate Transfer Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.4	0.0	1.3	23.5	hrs
Steam Flow	0.00	0.00	0.00	377.24	klbs
Gas Flow	2.22	0.00	4.65	432.21	kscf
Natural Gas Cost	$13.61	$0.00	$28.55	$2,654.07	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$13.61	$0.00	$28.55	$2,654.07	$
Average Steam Cost	---	---	---	$7.04	$/klbs
Efficiency By Losses	84.1	0.0	74.9	81.4	%
Efficiency By I/O				85.5	%

Central State Hospital

Heating Plant Day Operations Report

12/26/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	29.21	hdd
Total Plant Steam Flow	395.66	klbs
Steam Flow Per Heating Degree Day	13.5	klbs/hdd
Total Condensate Return Water Flow	1.3	klbs
Total Plant Gas Flow	457.46	kscf
Total Plant Gas Cost	$2,809.14	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$2,809.14	$
Fuel Cost Per Heating Degree Day	$96.16	$/hdd
Plant Average Steam Cost Per Degree Day	$0.24	$/klbs
Total Plant Efficiency By I/O	84.7	%

Condensate Transfer Pump #1 Run Time	0.0	hrs
Condensate Transfer Pump #2 Run Time	23.5	hrs
Condensate Transfer Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.3	0.0	1.3	23.5	hrs
Steam Flow	0.00	0.00	0.00	395.66	klbs
Gas Flow	1.63	0.00	4.67	451.15	kscf
Natural Gas Cost	$10.04	$0.00	$28.70	$2,770.40	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$10.04	$0.00	$28.70	$2,770.40	$
Average Steam Cost	---	---	---	$7.00	$/klbs
Efficiency By Losses	78.0	0.0	74.6	81.4	%
Efficiency By I/O				85.9	%

Central State Hospital

Heating Plant Day Operations Report

12/27/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	30.63	hdd
Total Plant Steam Flow	423.16	klbs
Steam Flow Per Heating Degree Day	13.8	klbs/hdd
Total Condensate Return Water Flow	1.6	klbs
Total Plant Gas Flow	486.30	kscf
Total Plant Gas Cost	$2,986.27	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$2,986.27	$
Fuel Cost Per Heating Degree Day	$97.50	$/hdd
Plant Average Steam Cost Per Degree Day	$0.23	$/klbs
Total Plant Efficiency By I/O	85.2	%

Condensate Transfer Pump #1 Run Time	0.0	hrs
Condensate Transfer Pump #2 Run Time	23.5	hrs
Condensate Transfer Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.3	0.0	1.2	23.5	hrs
Steam Flow	0.00	0.00	0.00	423.16	klbs
Gas Flow	1.61	0.00	4.53	480.16	kscf
Natural Gas Cost	$9.91	$0.00	$27.80	$2,948.56	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$9.91	$0.00	$27.80	$2,948.56	$
Average Steam Cost	---	---	---	$6.97	$/klbs
Efficiency By Losses	76.3	0.0	77.0	81.3	%
Efficiency By I/O				86.3	%

Central State Hospital

Heating Plant Day Operations Report

12/28/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	27.07	hdd
Total Plant Steam Flow	361.59	klbs
Steam Flow Per Heating Degree Day	13.4	klbs/hdd
Total Condensate Return Water Flow	3.7	klbs
Total Plant Gas Flow	411.50	kscf
Total Plant Gas Cost	$2,526.92	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$2,526.92	$
Fuel Cost Per Heating Degree Day	$93.33	$/hdd
Plant Average Steam Cost Per Degree Day	$0.26	$/klbs
Total Plant Efficiency By I/O	86.1	%

Condensate Transfer Pump #1 Run Time	0.0	hrs
Condensate Transfer Pump #2 Run Time	23.5	hrs
Condensate Transfer Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.3	0.0	1.0	23.5	hrs
Steam Flow	0.00	0.00	0.00	361.59	klbs
Gas Flow	1.61	0.00	3.64	406.25	kscf
Natural Gas Cost	$9.86	$0.00	$22.35	$2,494.70	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$9.86	$0.00	$22.35	$2,494.70	$
Average Steam Cost	---	---	---	$6.90	$/klbs
Efficiency By Losses	78.6	0.0	74.6	81.7	%
Efficiency By I/O				87.2	%

Central State Hospital

Heating Plant Day Operations Report

12/29/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	11.12	hdd
Total Plant Steam Flow	310.17	klbs
Steam Flow Per Heating Degree Day	27.9	klbs/hdd
Total Condensate Return Water Flow	5.1	klbs
Total Plant Gas Flow	351.13	kscf
Total Plant Gas Cost	$2,156.17	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$2,156.17	$
Fuel Cost Per Heating Degree Day	$193.85	$/hdd
Plant Average Steam Cost Per Degree Day	$0.62	$/klbs
Total Plant Efficiency By I/O	86.5	%

Condensate Transfer Pump #1 Run Time	0.0	hrs
Condensate Transfer Pump #2 Run Time	23.5	hrs
Condensate Transfer Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.3	0.0	1.0	23.5	hrs
Steam Flow	0.00	0.00	0.00	310.17	klbs
Gas Flow	1.65	0.00	3.73	345.75	kscf
Natural Gas Cost	$10.11	$0.00	$22.92	$2,123.15	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$10.11	$0.00	$22.92	$2,123.15	$
Average Steam Cost	---	---	---	$6.85	$/klbs
Efficiency By Losses	76.0	0.0	76.5	81.7	%
Efficiency By I/O				87.9	%

Central State Hospital

Heating Plant Day Operations Report

12/30/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	12.76	hdd
Total Plant Steam Flow	312.07	klbs
Steam Flow Per Heating Degree Day	24.5	klbs/hdd
Total Condensate Return Water Flow	5.2	klbs
Total Plant Gas Flow	352.56	kscf
Total Plant Gas Cost	$2,164.96	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$2,164.96	$
Fuel Cost Per Heating Degree Day	$169.71	$/hdd
Plant Average Steam Cost Per Degree Day	$0.54	$/klbs
Total Plant Efficiency By I/O	86.7	%

Condensate Transfer Pump #1 Run Time	0.0	hrs
Condensate Transfer Pump #2 Run Time	23.5	hrs
Condensate Transfer Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.3	0.0	1.2	23.5	hrs
Steam Flow	0.00	0.00	0.00	312.07	klbs
Gas Flow	1.61	0.00	4.26	346.68	kscf
Natural Gas Cost	$9.91	$0.00	$26.17	$2,128.89	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$9.91	$0.00	$26.17	$2,128.89	$
Average Steam Cost	---	---	---	$6.82	$/klbs
Efficiency By Losses	77.5	0.0	73.8	81.5	%
Efficiency By I/O				88.2	%

Central State Hospital

Heating Plant Day Operations Report

12/31/2018
7:00 AM
Daily Report

Description

	Plant	Units
Heating Degree Days	18.60	hdd
Total Plant Steam Flow	322.37	klbs
Steam Flow Per Heating Degree Day	17.3	klbs/hdd
Total Condensate Return Water Flow	5.0	klbs
Total Plant Gas Flow	362.40	kscf
Total Plant Gas Cost	$2,225.41	$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	$0.00	$
Total Plant Fuel Cost	$2,225.41	$
Fuel Cost Per Heating Degree Day	$119.65	$/hdd
Plant Average Steam Cost Per Degree Day	$0.37	$/klbs
Total Plant Efficiency By I/O	87.1	%

Condensate Transfer Pump #1 Run Time	0.0	hrs
Condensate Transfer Pump #2 Run Time	23.5	hrs
Condensate Transfer Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #1 Run Time	23.5	hrs
Boiler Feed Pump #2 Run Time	23.5	hrs
Boiler Feed Pump #3 Run Time	23.5	hrs
Boiler Feed Pump #4 Run Time	23.5	hrs
Fuel Oil Pump #1 Run Time	23.5	hrs
Fuel Oil Pump #2 Run Time	0.0	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.3	0.0	1.0	23.5	hrs
Steam Flow	0.00	0.00	0.00	322.37	klbs
Gas Flow	1.60	0.00	3.83	356.97	kscf
Natural Gas Cost	$9.83	$0.00	$23.53	$2,192.05	$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	$0.00	$0.00	$0.00	$0.00	$
Total Fuel Cost	$9.83	$0.00	$23.53	$2,192.05	$
Average Steam Cost	---	---	---	$6.80	$/klbs
Efficiency By Losses	74.0	0.0	76.5	81.6	%
Efficiency By I/O				88.4	%