

**Central State Hospital**  
Heating Plant Day Operations Report

1/1/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units
Heating Degree Days	19.05	hdd
Total Plant Steam Flow	324.04	klbs
Steam Flow Per Heating Degree Day	17.0	klbs/hdd
Total Condensate Return Water Flow	8.9	klbs
Total Plant Gas Flow	401.43	kscf
Total Plant Gas Cost	\$2,465.05	\$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	\$0.00	\$
Total Plant Fuel Cost	\$2,465.05	\$
Fuel Cost Per Heating Degree Day	\$129.42	\$/hdd
Plant Average Steam Cost Per Degree Day	\$0.40	\$/klbs
Total Plant Efficiency By I/O	79.1	%

Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs
Fuel Oil Pump #2 Run Time	23.5	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.0	23.5	0.0	0.5	hrs
Steam Flow	0.00	324.04	0.00	0.00	klbs
Gas Flow	0.00	398.44	0.00	2.98	kscf
Natural Gas Cost	\$0.00	\$2,446.73	\$0.00	\$18.32	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$0.00	\$2,446.73	\$0.00	\$18.32	\$
Average Steam Cost	---	\$7.55	---	---	\$/klbs
Efficiency By Losses	0.0	80.0	0.0	72.1	%
Efficiency By I/O		79.6			%

**Central State Hospital**  
Heating Plant Day Operations Report

1/2/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units
Heating Degree Days	23.19	hdd
Total Plant Steam Flow	326.36	klbs
Steam Flow Per Heating Degree Day	14.1	klbs/hdd
Total Condensate Return Water Flow	9.1	klbs
Total Plant Gas Flow	402.52	kscf
Total Plant Gas Cost	\$2,471.80	\$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	\$0.00	\$
Total Plant Fuel Cost	\$2,471.80	\$
Fuel Cost Per Heating Degree Day	\$106.60	\$/hdd
Plant Average Steam Cost Per Degree Day	\$0.33	\$/klbs
Total Plant Efficiency By I/O	79.4	%

Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs
Fuel Oil Pump #2 Run Time	23.5	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.0	23.5	0.0	0.4	hrs
Steam Flow	0.00	326.36	0.00	0.00	klbs
Gas Flow	0.00	399.93	0.00	2.59	kscf
Natural Gas Cost	\$0.00	\$2,455.88	\$0.00	\$15.92	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$0.00	\$2,455.88	\$0.00	\$15.92	\$
Average Steam Cost	---	\$7.52	---	---	\$/klbs
Efficiency By Losses	0.0	80.0	0.0	72.4	%
Efficiency By I/O		79.9			%

**Central State Hospital**  
Heating Plant Day Operations Report

1/3/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units
Heating Degree Days	19.07	hdd
Total Plant Steam Flow	316.82	klbs
Steam Flow Per Heating Degree Day	16.6	klbs/hdd
Total Condensate Return Water Flow	8.9	klbs
Total Plant Gas Flow	391.70	kscf
Total Plant Gas Cost	\$2,405.33	\$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	\$0.00	\$
Total Plant Fuel Cost	\$2,405.33	\$
Fuel Cost Per Heating Degree Day	\$126.16	\$/hdd
Plant Average Steam Cost Per Degree Day	\$0.40	\$/klbs
Total Plant Efficiency By I/O	79.2	%

Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs
Fuel Oil Pump #2 Run Time	23.5	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.0	23.5	0.0	0.4	hrs
Steam Flow	0.00	316.82	0.00	0.00	klbs
Gas Flow	0.00	389.22	0.00	2.48	kscf
Natural Gas Cost	\$0.00	\$2,390.08	\$0.00	\$15.25	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$0.00	\$2,390.08	\$0.00	\$15.25	\$
Average Steam Cost	---	\$7.54	---	---	\$/klbs
Efficiency By Losses	0.0	80.0	0.0	74.7	%
Efficiency By I/O		79.7			%

**Central State Hospital**  
Heating Plant Day Operations Report

1/4/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units
Heating Degree Days	14.84	hdd
Total Plant Steam Flow	300.46	klbs
Steam Flow Per Heating Degree Day	20.3	klbs/hdd
Total Condensate Return Water Flow	8.9	klbs
Total Plant Gas Flow	374.68	kscf
Total Plant Gas Cost	\$2,300.80	\$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	\$0.00	\$
Total Plant Fuel Cost	\$2,300.80	\$
Fuel Cost Per Heating Degree Day	\$155.07	\$/hdd
Plant Average Steam Cost Per Degree Day	\$0.52	\$/klbs
Total Plant Efficiency By I/O	78.5	%

Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs
Fuel Oil Pump #2 Run Time	23.5	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.0	23.5	0.0	0.4	hrs
Steam Flow	0.00	300.46	0.00	0.00	klbs
Gas Flow	0.00	372.09	0.00	2.59	kscf
Natural Gas Cost	\$0.00	\$2,284.89	\$0.00	\$15.91	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$0.00	\$2,284.89	\$0.00	\$15.91	\$
Average Steam Cost	---	\$7.60	---	---	\$/klbs
Efficiency By Losses	0.0	80.1	0.0	81.7	%
Efficiency By I/O		79.1			%

**Central State Hospital**  
Heating Plant Day Operations Report

1/5/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units
Heating Degree Days	12.46	hdd
Total Plant Steam Flow	298.30	klbs
Steam Flow Per Heating Degree Day	23.9	klbs/hdd
Total Condensate Return Water Flow	8.8	klbs
Total Plant Gas Flow	373.23	kscf
Total Plant Gas Cost	\$2,291.94	\$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	\$0.00	\$
Total Plant Fuel Cost	\$2,291.94	\$
Fuel Cost Per Heating Degree Day	\$183.91	\$/hdd
Plant Average Steam Cost Per Degree Day	\$0.62	\$/klbs
Total Plant Efficiency By I/O	78.3	%

Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs
Fuel Oil Pump #2 Run Time	23.5	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.0	23.5	0.0	0.4	hrs
Steam Flow	0.00	298.30	0.00	0.00	klbs
Gas Flow	0.00	370.29	0.00	2.94	kscf
Natural Gas Cost	\$0.00	\$2,273.88	\$0.00	\$18.06	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$0.00	\$2,273.88	\$0.00	\$18.06	\$
Average Steam Cost	—	\$7.62	—	—	\$/klbs
Efficiency By Losses	0.0	80.0	0.0	78.5	%
Efficiency By I/O		78.9			%

**Central State Hospital**  
Heating Plant Day Operations Report

1/6/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units
Heating Degree Days	25.16	hdd
Total Plant Steam Flow	342.19	klbs
Steam Flow Per Heating Degree Day	13.6	klbs/hdd
Total Condensate Return Water Flow	9.2	klbs
Total Plant Gas Flow	420.69	kscf
Total Plant Gas Cost	\$2,583.33	\$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	\$0.00	\$
Total Plant Fuel Cost	\$2,583.33	\$
Fuel Cost Per Heating Degree Day	\$102.66	\$/hdd
Plant Average Steam Cost Per Degree Day	\$0.30	\$/klbs
Total Plant Efficiency By I/O	79.7	%

Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs
Fuel Oil Pump #2 Run Time	23.5	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.0	23.5	0.0	0.5	hrs
Steam Flow	0.00	342.19	0.00	0.00	klbs
Gas Flow	0.00	417.44	0.00	3.24	kscf
Natural Gas Cost	\$0.00	\$2,563.42	\$0.00	\$19.91	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$0.00	\$2,563.42	\$0.00	\$19.91	\$
Average Steam Cost	—	\$7.49	---	---	\$/klbs
Efficiency By Losses	0.0	80.0	0.0	79.5	%
Efficiency By I/O		80.3			%

**Central State Hospital**  
Heating Plant Day Operations Report

1/7/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units
Heating Degree Days	22.56	hdd
Total Plant Steam Flow	346.29	klbs
Steam Flow Per Heating Degree Day	15.3	klbs/hdd
Total Condensate Return Water Flow	8.2	klbs
Total Plant Gas Flow	430.06	kscf
Total Plant Gas Cost	\$2,640.90	\$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	\$0.00	\$
Total Plant Fuel Cost	\$2,640.90	\$
Fuel Cost Per Heating Degree Day	\$117.05	\$/hdd
Plant Average Steam Cost Per Degree Day	\$0.34	\$/klbs
Total Plant Efficiency By I/O	78.9	%

Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs
Fuel Oil Pump #2 Run Time	23.5	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.2	23.5	0.0	0.5	hrs
Steam Flow	0.00	346.29	0.00	0.00	klbs
Gas Flow	0.99	425.78	0.00	3.29	kscf
Natural Gas Cost	\$6.05	\$2,614.62	\$0.00	\$20.23	\$
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	\$2,614.62	\$0.00	\$20.23	\$
Average Steam Cost	—	\$7.55	—	—	\$/klbs
Efficiency By Losses	0.0	80.1	0.0	77.6	%
Efficiency By I/O		79.6			%

**Central State Hospital**  
Heating Plant Day Operations Report

1/8/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units
Heating Degree Days	30.32	hdd
Total Plant Steam Flow	378.26	klbs
Steam Flow Per Heating Degree Day	12.5	klbs/hdd
Total Condensate Return Water Flow	8.4	klbs
Total Plant Gas Flow	466.17	kscf
Total Plant Gas Cost	\$2,862.63	\$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	\$0.00	\$
Total Plant Fuel Cost	\$2,862.63	\$
Fuel Cost Per Heating Degree Day	\$94.40	\$/hdd
Plant Average Steam Cost Per Degree Day	\$0.25	\$/klbs
Total Plant Efficiency By I/O	79.5	%

Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs
Fuel Oil Pump #2 Run Time	23.5	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.5	23.5	0.0	0.6	hrs
Steam Flow	0.00	378.25	0.00	0.01	klbs
Gas Flow	5.04	457.36	0.00	3.77	kscf
Natural Gas Cost	\$30.97	\$2,808.53	\$0.00	\$23.14	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$30.97	\$2,808.53	\$0.00	\$23.14	\$
Average Steam Cost	---	\$7.43	---	\$1,809.42	\$/klbs
Efficiency By Losses	0.0	80.2	0.0	79.2	%
Efficiency By I/O		81.0			%



**Central State Hospital**  
Heating Plant Day Operations Report

1/9/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units			
Heating Degree Days	25.72	hdd			
Total Plant Steam Flow	362.55	klbs			
Steam Flow Per Heating Degree Day	14.1	klbs/hdd			
Total Condensate Return Water Flow	8.3	klbs			
Total Plant Gas Flow	444.90	kscf			
Total Plant Gas Cost	\$2,731.99	\$			
Total Plant Oil Flow	0.0	gals			
Total Plant Oil Cost	\$0.00	\$			
Total Plant Fuel Cost	\$2,731.99	\$			
Fuel Cost Per Heating Degree Day	\$106.24	\$/hdd			
Plant Average Steam Cost Per Degree Day	\$0.29	\$/klbs			
Total Plant Efficiency By I/O	79.8	%			
Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs			
Fuel Oil Pump #2 Run Time	23.5	hrs			
	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.0	23.5	0.0	0.6	hrs
Steam Flow	0.00	362.52	0.00	0.02	klbs
Gas Flow	0.00	441.13	0.00	3.76	kscf
Natural Gas Cost	\$0.00	\$2,708.90	\$0.00	\$23.09	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$0.00	\$2,708.90	\$0.00	\$23.09	\$
Average Steam Cost	---	\$7.47	---	\$929.58	\$/klbs
Efficiency By Losses	0.0	79.9	0.0	75.7	%
Efficiency By I/O		80.5			%

**Central State Hospital**  
Heating Plant Day Operations Report

1/10/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units
Heating Degree Days	31.67	hdd
Total Plant Steam Flow	367.02	klbs
Steam Flow Per Heating Degree Day	11.6	klbs/hdd
Total Condensate Return Water Flow	8.5	klbs
Total Plant Gas Flow	448.61	kscf
Total Plant Gas Cost	\$2,754.79	\$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	\$0.00	\$
Total Plant Fuel Cost	\$2,754.79	\$
Fuel Cost Per Heating Degree Day	\$86.98	\$/hdd
Plant Average Steam Cost Per Degree Day	\$0.24	\$/klbs
Total Plant Efficiency By I/O	80.1	%

Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs
Fuel Oil Pump #2 Run Time	23.5	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.0	23.5	0.0	0.5	hrs
Steam Flow	0.00	367.02	0.00	0.00	klbs
Gas Flow	0.00	445.27	0.00	3.34	kscf
Natural Gas Cost	\$0.00	\$2,734.31	\$0.00	\$20.48	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$0.00	\$2,734.31	\$0.00	\$20.48	\$
Average Steam Cost	---	\$7.45	---	---	\$/klbs
Efficiency By Losses	0.0	80.0	0.0	76.3	%
Efficiency By I/O		80.7			%

**Central State Hospital**  
Heating Plant Day Operations Report

1/11/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units
Heating Degree Days	20.05	hdd
Total Plant Steam Flow	310.10	klbs
Steam Flow Per Heating Degree Day	15.5	klbs/hdd
Total Condensate Return Water Flow	8.8	klbs
Total Plant Gas Flow	382.81	kscf
Total Plant Gas Cost	\$2,350.75	\$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	\$0.00	\$
Total Plant Fuel Cost	\$2,350.75	\$
Fuel Cost Per Heating Degree Day	\$117.22	\$/hdd
Plant Average Steam Cost Per Degree Day	\$0.38	\$/klbs
Total Plant Efficiency By I/O	79.3	%

Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs
Fuel Oil Pump #2 Run Time	23.5	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.0	23.5	0.0	0.3	hrs
Steam Flow	0.00	310.10	0.00	0.00	klbs
Gas Flow	0.00	380.93	0.00	1.88	kscf
Natural Gas Cost	\$0.00	\$2,339.21	\$0.00	\$11.53	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$0.00	\$2,339.21	\$0.00	\$11.53	\$
Average Steam Cost	---	\$7.54	---	---	\$/klbs
Efficiency By Losses	0.0	80.0	0.0	81.6	%
Efficiency By I/O		79.7			%

**Central State Hospital**  
Heating Plant Day Operations Report

1/12/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units
Heating Degree Days	3.47	hdd
Total Plant Steam Flow	263.85	klbs
Steam Flow Per Heating Degree Day	76.1	klbs/hdd
Total Condensate Return Water Flow	8.8	klbs
Total Plant Gas Flow	330.06	kscf
Total Plant Gas Cost	\$2,026.83	\$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	\$0.00	\$
Total Plant Fuel Cost	\$2,026.83	\$
Fuel Cost Per Heating Degree Day	\$584.88	\$/hdd
Plant Average Steam Cost Per Degree Day	\$2.22	\$/klbs
Total Plant Efficiency By I/O	78.3	%

Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs
Fuel Oil Pump #2 Run Time	23.5	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.0	23.5	0.0	0.3	hrs
Steam Flow	0.00	263.85	0.00	0.00	klbs
Gas Flow	0.00	327.80	0.00	2.26	kscf
Natural Gas Cost	\$0.00	\$2,012.93	\$0.00	\$13.89	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$0.00	\$2,012.93	\$0.00	\$13.89	\$
Average Steam Cost	—	\$7.63	—	—	\$/klbs
Efficiency By Losses	0.0	80.2	0.0	81.2	%
Efficiency By I/O		78.8			%

**Central State Hospital**  
Heating Plant Day Operations Report

1/13/2020  
7:00 AM  
Daily Report

**Description**

	Plant			Units	
Heating Degree Days	5.99			hdd	
Total Plant Steam Flow	267.90			klbs	
Steam Flow Per Heating Degree Day	44.7			klbs/hdd	
Total Condensate Return Water Flow	8.6			klbs	
Total Plant Gas Flow	334.75			kscf	
Total Plant Gas Cost	\$2,055.63			\$	
Total Plant Oil Flow	0.0			gals	
Total Plant Oil Cost	\$0.00			\$	
Total Plant Fuel Cost	\$2,055.63			\$	
Fuel Cost Per Heating Degree Day	\$343.03			\$/hdd	
Plant Average Steam Cost Per Degree Day	\$1.28			\$/klbs	
Total Plant Efficiency By I/O	78.4			%	
Condensate Transfer Pump #1 Run Time	23.5			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	0.0			hrs	
Fuel Oil Pump #2 Run Time	23.5			hrs	
	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.0	23.5	0.0	0.4	hrs
Steam Flow	0.00	267.90	0.00	0.00	klbs
Gas Flow	0.00	332.36	0.00	2.39	kscf
Natural Gas Cost	\$0.00	\$2,040.95	\$0.00	\$14.67	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$0.00	\$2,040.95	\$0.00	\$14.67	\$
Average Steam Cost	---	\$7.62	---	---	\$/klbs
Efficiency By Losses	0.0	80.0	0.0	78.8	%
Efficiency By I/O		78.9			%

**Central State Hospital**  
Heating Plant Day Operations Report

1/14/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units
Heating Degree Days	10.60	hdd
Total Plant Steam Flow	292.43	klbs
Steam Flow Per Heating Degree Day	27.6	klbs/hdd
Total Condensate Return Water Flow	8.5	klbs
Total Plant Gas Flow	367.55	kscf
Total Plant Gas Cost	\$2,257.06	\$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	\$0.00	\$
Total Plant Fuel Cost	\$2,257.06	\$
Fuel Cost Per Heating Degree Day	\$212.92	\$/hdd
Plant Average Steam Cost Per Degree Day	\$0.73	\$/klbs
Total Plant Efficiency By I/O	77.9	%

Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs
Fuel Oil Pump #2 Run Time	23.5	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.0	23.5	0.0	0.4	hrs
Steam Flow	0.00	292.43	0.00	0.00	klbs
Gas Flow	0.00	364.70	0.00	2.86	kscf
Natural Gas Cost	\$0.00	\$2,239.52	\$0.00	\$17.54	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$0.00	\$2,239.52	\$0.00	\$17.54	\$
Average Steam Cost	---	\$7.66	---	---	\$/klbs
Efficiency By Losses	0.0	79.9	0.0	78.9	%
Efficiency By I/O		78.5			%

**Central State Hospital**  
Heating Plant Day Operations Report

1/15/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units			
Heating Degree Days	0.00	hdd			
Total Plant Steam Flow	324.76	klbs			
Steam Flow Per Heating Degree Day	---	klbs/hdd			
Total Condensate Return Water Flow	8.7	klbs			
Total Plant Gas Flow	432.32	kscf			
Total Plant Gas Cost	\$2,654.76	\$			
Total Plant Oil Flow	0.0	gals			
Total Plant Oil Cost	\$0.00	\$			
Total Plant Fuel Cost	\$2,654.76	\$			
Fuel Cost Per Heating Degree Day	---	\$/hdd			
Plant Average Steam Cost Per Degree Day	---	\$/klbs			
Total Plant Efficiency By I/O	73.6	%			
Condensate Transfer Pump #1 Run Time	1.6	hrs			
Condensate Transfer Pump #2 Run Time	1.6	hrs			
Condensate Transfer Pump #3 Run Time	1.6	hrs			
Boiler Feed Pump #1 Run Time	1.6	hrs			
Boiler Feed Pump #2 Run Time	1.6	hrs			
Boiler Feed Pump #3 Run Time	1.6	hrs			
Boiler Feed Pump #4 Run Time	1.6	hrs			
Fuel Oil Pump #1 Run Time	0.0	hrs			
Fuel Oil Pump #2 Run Time	1.6	hrs			
	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.0	23.5	0.0	0.4	hrs
Steam Flow	0.00	324.76	0.00	0.00	klbs
Gas Flow	0.00	431.56	0.00	0.76	kscf
Natural Gas Cost	\$0.00	\$2,650.09	\$0.00	\$4.66	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$0.00	\$2,650.09	\$0.00	\$4.66	\$
Average Steam Cost	---	\$8.16	---	---	\$/klbs
Efficiency By Losses	0.0	0.0	0.0	0.0	%
Efficiency By I/O		73.7			%

**Central State Hospital**  
Heating Plant Day Operations Report

1/16/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units			
Heating Degree Days	76.08	hdd			
Total Plant Steam Flow	298.06	klbs			
Steam Flow Per Heating Degree Day	3.9	klbs/hdd			
Total Condensate Return Water Flow	8.3	klbs			
Total Plant Gas Flow	381.71	kscf			
Total Plant Gas Cost	\$2,343.96	\$			
Total Plant Oil Flow	0.0	gals			
Total Plant Oil Cost	\$0.00	\$			
Total Plant Fuel Cost	\$2,343.96	\$			
Fuel Cost Per Heating Degree Day	\$30.81	\$/hdd			
Plant Average Steam Cost Per Degree Day	\$0.10	\$/klbs			
Total Plant Efficiency By I/O	76.5	%			
Condensate Transfer Pump #1 Run Time	18.3	hrs			
Condensate Transfer Pump #2 Run Time	18.3	hrs			
Condensate Transfer Pump #3 Run Time	18.3	hrs			
Boiler Feed Pump #1 Run Time	18.3	hrs			
Boiler Feed Pump #2 Run Time	18.3	hrs			
Boiler Feed Pump #3 Run Time	18.3	hrs			
Boiler Feed Pump #4 Run Time	18.3	hrs			
Fuel Oil Pump #1 Run Time	0.0	hrs			
Fuel Oil Pump #2 Run Time	18.2	hrs			
	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.4	23.5	0.0	0.4	hrs
Steam Flow	0.00	298.06	0.00	0.00	klbs
Gas Flow	0.00	379.62	0.00	2.09	kscf
Natural Gas Cost	\$0.00	\$2,331.14	\$0.00	\$12.82	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$0.00	\$2,331.14	\$0.00	\$12.82	\$
Average Steam Cost	---	\$7.82	---	---	\$/klbs
Efficiency By Losses	0.0	80.1	0.0	72.8	%
Efficiency By I/O		76.9			%



**Central State Hospital**  
Heating Plant Day Operations Report

1/17/2020  
7:00 AM  
Daily Report

**Description**

	Plant				Units
Heating Degree Days	16.68				hdd
Total Plant Steam Flow	326.72				klbs
Steam Flow Per Heating Degree Day	19.6				klbs/hdd
Total Condensate Return Water Flow	8.4				klbs
Total Plant Gas Flow	404.81				kscf
Total Plant Gas Cost	\$2,485.82				\$
Total Plant Oil Flow	0.0				gals
Total Plant Oil Cost	\$0.00				\$
Total Plant Fuel Cost	\$2,485.82				\$
Fuel Cost Per Heating Degree Day	\$149.02				\$/hdd
Plant Average Steam Cost Per Degree Day	\$0.46				\$/klbs
Total Plant Efficiency By I/O	79.0				%
Condensate Transfer Pump #1 Run Time	23.5				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	0.0				hrs
Fuel Oil Pump #2 Run Time	23.5				hrs
	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.0	23.5	0.0	0.6	hrs
Steam Flow	0.00	326.71	0.00	0.01	klbs
Gas Flow	0.00	401.04	0.00	3.76	kscf
Natural Gas Cost	\$0.00	\$2,462.72	\$0.00	\$23.10	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$0.00	\$2,462.72	\$0.00	\$23.10	\$
Average Steam Cost	—	\$7.54	—	\$1,581.74	\$/klbs
Efficiency By Losses	0.0	79.9	0.0	73.8	%
Efficiency By I/O		79.8			%

**Central State Hospital**  
Heating Plant Day Operations Report

1/18/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units			
Heating Degree Days	30.67	hdd			
Total Plant Steam Flow	359.16	klbs			
Steam Flow Per Heating Degree Day	11.7	klbs/hdd			
Total Condensate Return Water Flow	8.2	klbs			
Total Plant Gas Flow	441.69	kscf			
Total Plant Gas Cost	\$2,712.33	\$			
Total Plant Oil Flow	0.0	gals			
Total Plant Oil Cost	\$0.00	\$			
Total Plant Fuel Cost	\$2,712.33	\$			
Fuel Cost Per Heating Degree Day	\$88.42	\$/hdd			
Plant Average Steam Cost Per Degree Day	\$0.25	\$/klbs			
Total Plant Efficiency By I/O	79.6	%			
Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs			
Fuel Oil Pump #2 Run Time	23.5	hrs			
	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.0	23.5	0.0	0.6	hrs
Steam Flow	0.00	359.12	0.00	0.04	klbs
Gas Flow	0.00	437.78	0.00	3.92	kscf
Natural Gas Cost	\$0.00	\$2,688.27	\$0.00	\$24.06	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$0.00	\$2,688.27	\$0.00	\$24.06	\$
Average Steam Cost	---	\$7.49	---	\$661.56	\$/klbs
Efficiency By Losses	0.0	79.9	0.0	74.6	%
Efficiency By I/O		80.3			%

**Central State Hospital**  
Heating Plant Day Operations Report

1/19/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units			
Heating Degree Days	30.62	hdd			
Total Plant Steam Flow	353.65	klbs			
Steam Flow Per Heating Degree Day	11.6	klbs/hdd			
Total Condensate Return Water Flow	8.2	klbs			
Total Plant Gas Flow	441.60	kscf			
Total Plant Gas Cost	\$2,711.76	\$			
Total Plant Oil Flow	0.0	gals			
Total Plant Oil Cost	\$0.00	\$			
Total Plant Fuel Cost	\$2,711.76	\$			
Fuel Cost Per Heating Degree Day	\$88.57	\$/hdd			
Plant Average Steam Cost Per Degree Day	\$0.25	\$/klbs			
Total Plant Efficiency By I/O	78.4	%			
Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs			
Fuel Oil Pump #2 Run Time	23.5	hrs			
	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.0	23.5	0.0	0.5	hrs
Steam Flow	0.00	353.64	0.00	0.01	klbs
Gas Flow	0.00	438.57	0.00	3.03	kscf
Natural Gas Cost	\$0.00	\$2,693.14	\$0.00	\$18.62	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$0.00	\$2,693.14	\$0.00	\$18.62	\$
Average Steam Cost	—	\$7.62	—	\$1,697.98	\$/klbs
Efficiency By Losses	0.0	80.0	0.0	76.5	%
Efficiency By I/O		79.0			%

**Central State Hospital**  
Heating Plant Day Operations Report

1/20/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units
Heating Degree Days	25.58	hdd
Total Plant Steam Flow	348.96	klbs
Steam Flow Per Heating Degree Day	13.6	klbs/hdd
Total Condensate Return Water Flow	8.0	klbs
Total Plant Gas Flow	449.89	kscf
Total Plant Gas Cost	\$2,762.67	\$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	\$0.00	\$
Total Plant Fuel Cost	\$2,762.67	\$
Fuel Cost Per Heating Degree Day	\$107.99	\$/hdd
Plant Average Steam Cost Per Degree Day	\$0.31	\$/klbs
Total Plant Efficiency By I/O	76.0	%

Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs
Fuel Oil Pump #2 Run Time	23.5	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.0	23.5	0.0	0.7	hrs
Steam Flow	0.00	348.94	0.00	0.02	klbs
Gas Flow	0.00	445.26	0.00	4.63	kscf
Natural Gas Cost	\$0.00	\$2,734.22	\$0.00	\$28.45	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$0.00	\$2,734.22	\$0.00	\$28.45	\$
Average Steam Cost	---	\$7.84	---	\$1,880.58	\$/klbs
Efficiency By Losses	0.0	79.8	0.0	78.8	%
Efficiency By I/O		76.7			%

**Central State Hospital**  
Heating Plant Day Operations Report

1/21/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units
Heating Degree Days	49.97	hdd
Total Plant Steam Flow	368.03	klbs
Steam Flow Per Heating Degree Day	7.4	klbs/hdd
Total Condensate Return Water Flow	8.6	klbs
Total Plant Gas Flow	476.57	kscf
Total Plant Gas Cost	\$2,926.50	\$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	\$0.00	\$
Total Plant Fuel Cost	\$2,926.50	\$
Fuel Cost Per Heating Degree Day	\$58.56	\$/hdd
Plant Average Steam Cost Per Degree Day	\$0.16	\$/klbs
Total Plant Efficiency By I/O	75.6	%

Condensate Transfer Pump #1 Run Time	9.5	hrs
Condensate Transfer Pump #2 Run Time	9.5	hrs
Condensate Transfer Pump #3 Run Time	9.5	hrs
Boiler Feed Pump #1 Run Time	9.5	hrs
Boiler Feed Pump #2 Run Time	9.5	hrs
Boiler Feed Pump #3 Run Time	9.5	hrs
Boiler Feed Pump #4 Run Time	9.5	hrs
Fuel Oil Pump #1 Run Time	0.0	hrs
Fuel Oil Pump #2 Run Time	9.5	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.0	23.5	0.0	0.8	hrs
Steam Flow	0.00	367.98	0.00	0.06	klbs
Gas Flow	0.00	474.68	0.00	1.89	kscf
Natural Gas Cost	\$0.00	\$2,914.86	\$0.00	\$11.64	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$0.00	\$2,914.86	\$0.00	\$11.64	\$
Average Steam Cost	---	\$7.92	---	\$200.80	\$/klbs
Efficiency By Losses	0.0	79.7	0.0	74.8	%
Efficiency By I/O		75.9		3.0	%

**Central State Hospital**  
Heating Plant Day Operations Report

1/22/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units
Heating Degree Days	49.97	hdd
Total Plant Steam Flow	402.69	klbs
Steam Flow Per Heating Degree Day	8.1	klbs/hdd
Total Condensate Return Water Flow	7.9	klbs
Total Plant Gas Flow	508.18	kscf
Total Plant Gas Cost	\$3,120.59	\$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	\$0.00	\$
Total Plant Fuel Cost	\$3,120.59	\$
Fuel Cost Per Heating Degree Day	\$62.44	\$/hdd
Plant Average Steam Cost Per Degree Day	\$0.16	\$/klbs
Total Plant Efficiency By I/O	77.6	%

Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs
Fuel Oil Pump #2 Run Time	23.5	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	1.5	2.8	0.0	20.9	hrs
Steam Flow	0.00	55.30	0.00	347.38	klbs
Gas Flow	10.38	70.16	0.00	427.64	kscf
Natural Gas Cost	\$63.72	\$430.81	\$0.00	\$2,626.05	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$63.72	\$430.81	\$0.00	\$2,626.05	\$
Average Steam Cost	---	\$7.79	---	\$7.56	\$/klbs
Efficiency By Losses	73.7	0.0	0.0	79.1	%
Efficiency By I/O		77.2		79.6	%

**Central State Hospital**  
Heating Plant Day Operations Report

1/23/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units			
Heating Degree Days	36.00	hdd			
Total Plant Steam Flow	392.65	klbs			
Steam Flow Per Heating Degree Day	10.9	klbs/hdd			
Total Condensate Return Water Flow	7.6	klbs			
Total Plant Gas Flow	490.15	kscf			
Total Plant Gas Cost	\$3,009.91	\$			
Total Plant Oil Flow	0.0	gals			
Total Plant Oil Cost	\$0.00	\$			
Total Plant Fuel Cost	\$3,009.91	\$			
Fuel Cost Per Heating Degree Day	\$83.62	\$/hdd			
Plant Average Steam Cost Per Degree Day	\$0.21	\$/klbs			
Total Plant Efficiency By I/O	78.4	%			
Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs			
Fuel Oil Pump #2 Run Time	23.5	hrs			
	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.8	0.0	0.0	23.5	hrs
Steam Flow	0.00	0.00	0.00	392.65	klbs
Gas Flow	4.33	0.00	0.00	485.82	kscf
Natural Gas Cost	\$26.59	\$0.00	\$0.00	\$2,983.32	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$26.59	\$0.00	\$0.00	\$2,983.32	\$
Average Steam Cost	—	—	—	\$7.60	\$/klbs
Efficiency By Losses	76.2	0.0	0.0	79.1	%
Efficiency By I/O				79.1	%

**Central State Hospital**  
Heating Plant Day Operations Report

1/24/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units			
Heating Degree Days	32.60	hdd			
Total Plant Steam Flow	380.06	klbs			
Steam Flow Per Heating Degree Day	11.7	klbs/hdd			
Total Condensate Return Water Flow	8.0	klbs			
Total Plant Gas Flow	463.46	kscf			
Total Plant Gas Cost	\$2,846.02	\$			
Total Plant Oil Flow	0.0	gals			
Total Plant Oil Cost	\$0.00	\$			
Total Plant Fuel Cost	\$2,846.02	\$			
Fuel Cost Per Heating Degree Day	\$87.29	\$/hdd			
Plant Average Steam Cost Per Degree Day	\$0.23	\$/klbs			
Total Plant Efficiency By I/O	80.3	%			
Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs			
Fuel Oil Pump #2 Run Time	23.5	hrs			
	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.6	0.0	0.0	23.5	hrs
Steam Flow	0.00	0.00	0.00	380.06	klbs
Gas Flow	2.91	0.00	0.00	460.55	kscf
Natural Gas Cost	\$17.89	\$0.00	\$0.00	\$2,828.12	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$17.89	\$0.00	\$0.00	\$2,828.12	\$
Average Steam Cost	---	---	---	\$7.44	\$/klbs
Efficiency By Losses	79.1	0.0	0.0	79.3	%
Efficiency By I/O				80.8	%



**Central State Hospital**  
Heating Plant Day Operations Report

1/25/2020  
7:00 AM  
Daily Report

**Description**

	Plant				Units
Heating Degree Days	18.23				hdd
Total Plant Steam Flow	328.24				klbs
Steam Flow Per Heating Degree Day	18.0				klbs/hdd
Total Condensate Return Water Flow	8.1				klbs
Total Plant Gas Flow	400.78				kscf
Total Plant Gas Cost	\$2,461.08				\$
Total Plant Oil Flow	0.0				gals
Total Plant Oil Cost	\$0.00				\$
Total Plant Fuel Cost	\$2,461.08				\$
Fuel Cost Per Heating Degree Day	\$135.01				\$/hdd
Plant Average Steam Cost Per Degree Day	\$0.41				\$/klbs
Total Plant Efficiency By I/O	80.2				%
Condensate Transfer Pump #1 Run Time	23.5				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	0.0				hrs
Fuel Oil Pump #2 Run Time	23.5				hrs
	<b>Boiler 1</b>	<b>Boiler 2</b>	<b>Boiler 3</b>	<b>Boiler 4</b>	<b>Units</b>
Run Time	0.6	0.0	0.0	23.5	hrs
Steam Flow	0.00	0.00	0.00	328.24	klbs
Gas Flow	3.32	0.00	0.00	397.46	kscf
Natural Gas Cost	\$20.38	\$0.00	\$0.00	\$2,440.70	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$20.38	\$0.00	\$0.00	\$2,440.70	\$
Average Steam Cost	---	---	---	\$7.44	\$/klbs
Efficiency By Losses	78.1	0.0	0.0	79.5	%
Efficiency By I/O				80.9	%

**Central State Hospital**  
Heating Plant Day Operations Report

1/26/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units
Heating Degree Days	15.48	hdd
Total Plant Steam Flow	326.03	klbs
Steam Flow Per Heating Degree Day	21.1	klbs/hdd
Total Condensate Return Water Flow	8.2	klbs
Total Plant Gas Flow	395.71	kscf
Total Plant Gas Cost	\$2,429.94	\$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	\$0.00	\$
Total Plant Fuel Cost	\$2,429.94	\$
Fuel Cost Per Heating Degree Day	\$156.94	\$/hdd
Plant Average Steam Cost Per Degree Day	\$0.48	\$/klbs
Total Plant Efficiency By I/O	80.7	%

Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs
Fuel Oil Pump #2 Run Time	23.5	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.8	0.0	0.0	23.5	hrs
Steam Flow	0.00	0.00	0.00	326.03	klbs
Gas Flow	4.12	0.00	0.00	391.59	kscf
Natural Gas Cost	\$25.31	\$0.00	\$0.00	\$2,404.64	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$25.31	\$0.00	\$0.00	\$2,404.64	\$
Average Steam Cost	—	—	—	\$7.38	\$/klbs
Efficiency By Losses	76.5	0.0	0.0	79.3	%
Efficiency By I/O				81.5	%

**Central State Hospital**  
Heating Plant Day Operations Report

1/27/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units			
Heating Degree Days	23.54	hdd			
Total Plant Steam Flow	347.33	klbs			
Steam Flow Per Heating Degree Day	14.8	klbs/hdd			
Total Condensate Return Water Flow	8.4	klbs			
Total Plant Gas Flow	421.32	kscf			
Total Plant Gas Cost	\$2,587.23	\$			
Total Plant Oil Flow	0.0	gals			
Total Plant Oil Cost	\$0.00	\$			
Total Plant Fuel Cost	\$2,587.23	\$			
Fuel Cost Per Heating Degree Day	\$109.91	\$/hdd			
Plant Average Steam Cost Per Degree Day	\$0.32	\$/klbs			
Total Plant Efficiency By I/O	80.7	%			
Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs			
Fuel Oil Pump #2 Run Time	23.5	hrs			
	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.7	0.0	0.0	23.5	hrs
Steam Flow	0.00	0.00	0.00	347.33	klbs
Gas Flow	3.57	0.00	0.00	417.75	kscf
Natural Gas Cost	\$21.92	\$0.00	\$0.00	\$2,565.32	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$21.92	\$0.00	\$0.00	\$2,565.32	\$
Average Steam Cost	—	—	—	\$7.39	\$/klbs
Efficiency By Losses	79.9	0.0	0.0	79.3	%
Efficiency By I/O				81.4	%

**Central State Hospital**  
Heating Plant Day Operations Report

1/28/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units
Heating Degree Days	24.59	hdd
Total Plant Steam Flow	352.95	klbs
Steam Flow Per Heating Degree Day	14.4	klbs/hdd
Total Condensate Return Water Flow	8.5	klbs
Total Plant Gas Flow	430.03	kscf
Total Plant Gas Cost	\$2,640.71	\$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	\$0.00	\$
Total Plant Fuel Cost	\$2,640.71	\$
Fuel Cost Per Heating Degree Day	\$107.41	\$/hdd
Plant Average Steam Cost Per Degree Day	\$0.30	\$/klbs
Total Plant Efficiency By I/O	80.4	%

Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs
Fuel Oil Pump #2 Run Time	23.5	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.7	0.0	0.0	23.5	hrs
Steam Flow	0.00	0.00	0.00	352.95	klbs
Gas Flow	3.57	0.00	0.00	426.46	kscf
Natural Gas Cost	\$21.91	\$0.00	\$0.00	\$2,618.80	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$21.91	\$0.00	\$0.00	\$2,618.80	\$
Average Steam Cost	---	---	---	\$7.42	\$/klbs
Efficiency By Losses	72.7	0.0	0.0	79.4	%
Efficiency By I/O				81.0	%

**Central State Hospital**  
Heating Plant Day Operations Report

1/29/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units
Heating Degree Days	26.54	hdd
Total Plant Steam Flow	360.61	klbs
Steam Flow Per Heating Degree Day	13.6	klbs/hdd
Total Condensate Return Water Flow	8.3	klbs
Total Plant Gas Flow	440.44	kscf
Total Plant Gas Cost	\$2,704.62	\$
Total Plant Oil Flow	0.0	gals
Total Plant Oil Cost	\$0.00	\$
Total Plant Fuel Cost	\$2,704.62	\$
Fuel Cost Per Heating Degree Day	\$101.90	\$/hdd
Plant Average Steam Cost Per Degree Day	\$0.28	\$/klbs
Total Plant Efficiency By I/O	80.2	%

Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs
Fuel Oil Pump #2 Run Time	23.5	hrs

	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.8	0.0	0.0	23.5	hrs
Steam Flow	0.00	0.00	0.00	360.61	klbs
Gas Flow	4.21	0.00	0.00	436.23	kscf
Natural Gas Cost	\$25.85	\$0.00	\$0.00	\$2,678.77	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$25.85	\$0.00	\$0.00	\$2,678.77	\$
Average Steam Cost	—	—	—	\$7.43	\$/klbs
Efficiency By Losses	74.1	0.0	0.0	79.2	%
Efficiency By I/O				81.0	%

**Central State Hospital**  
Heating Plant Day Operations Report

1/30/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units			
Heating Degree Days	29.19	hdd			
Total Plant Steam Flow	374.91	klbs			
Steam Flow Per Heating Degree Day	12.8	klbs/hdd			
Total Condensate Return Water Flow	7.9	klbs			
Total Plant Gas Flow	486.03	kscf			
Total Plant Gas Cost	\$2,984.61	\$			
Total Plant Oil Flow	0.1	gals			
Total Plant Oil Cost	\$0.39	\$			
Total Plant Fuel Cost	\$2,985.00	\$			
Fuel Cost Per Heating Degree Day	\$102.25	\$/hdd			
Plant Average Steam Cost Per Degree Day	\$0.27	\$/klbs			
Total Plant Efficiency By I/O	75.5	%			
Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs			
Fuel Oil Pump #2 Run Time	23.5	hrs			
	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.8	19.3	2.6	6.0	hrs
Steam Flow	0.00	277.49	0.89	96.53	klbs
Gas Flow	3.89	349.90	13.80	118.44	kscf
Natural Gas Cost	\$23.87	\$2,148.67	\$84.75	\$727.32	\$
Oil Flow	0.0	0.1	0.0	0.0	gals
Oil Cost	\$0.00	\$0.39	\$0.00	\$0.00	\$
Total Fuel Cost	\$23.87	\$2,149.06	\$84.75	\$727.32	\$
Average Steam Cost	—	\$7.74	\$95.51	\$7.53	\$/klbs
Efficiency By Losses	78.0	79.9	80.8	74.3	%
Efficiency By I/O		77.7	6.3	79.8	%

**Central State Hospital**  
Heating Plant Day Operations Report

1/31/2020  
7:00 AM  
Daily Report

**Description**

	Plant	Units			
Heating Degree Days	29.32	hdd			
Total Plant Steam Flow	374.05	klbs			
Steam Flow Per Heating Degree Day	12.8	klbs/hdd			
Total Condensate Return Water Flow	8.3	klbs			
Total Plant Gas Flow	481.08	kscf			
Total Plant Gas Cost	\$2,954.19	\$			
Total Plant Oil Flow	0.0	gals			
Total Plant Oil Cost	\$0.00	\$			
Total Plant Fuel Cost	\$2,954.19	\$			
Fuel Cost Per Heating Degree Day	\$100.77	\$/hdd			
Plant Average Steam Cost Per Degree Day	\$0.27	\$/klbs			
Total Plant Efficiency By I/O	76.1	%			
Condensate Transfer Pump #1 Run Time	23.5	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	0.0	hrs			
Fuel Oil Pump #2 Run Time	23.5	hrs			
	Boiler 1	Boiler 2	Boiler 3	Boiler 4	Units
Run Time	0.7	23.5	0.8	0.4	hrs
Steam Flow	0.00	374.05	0.00	0.00	klbs
Gas Flow	3.77	471.38	3.06	2.86	kscf
Natural Gas Cost	\$23.16	\$2,894.64	\$18.82	\$17.57	\$
Oil Flow	0.0	0.0	0.0	0.0	gals
Oil Cost	\$0.00	\$0.00	\$0.00	\$0.00	\$
Total Fuel Cost	\$23.16	\$2,894.64	\$18.82	\$17.57	\$
Average Steam Cost	—	\$7.74	—	—	\$/klbs
Efficiency By Losses	77.5	79.8	75.5	81.0	%
Efficiency By I/O		77.7			%