Hunlock Cre Energy Center

Operator Logs

Week Beginning: 5-7 4/30/12

	Units	Min	Norm	Max	5-7-12 4/30/12 Day	5-7-12 4/30/12 Night	5-8-12 ~~5/1/12~~ Day	5-8-12 ~~5/1/12~~ Night	5-9-12 ~~5/2/12~~ Day	5-9-12 ~~5/2/12~~ Night	5-10-12 ~~5/3/12~~ Day	5-10-12 ~~5/3/12~~ Night	5-11-12 ~~5/4/12~~ Day	5-11-12 ~~5/4/12~~ Night	5-12-12 ~~5/5/12~~ Day	5-12-12 ~~5/5/12~~ Night	5-13-12 ~~5/6/12~~ Day	5-13-12 ~~5/6/12~~ Night
Chiller Building																		
3D Trasar #DT184 Tank Level	gal				31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	30	30	30	30	30
3D Trasar #DT191 Tank Level	gal				57.5	57.5	57.0	57.5	57.5	57.5	58.0	58.5	57.0	57	57	57	57	57
Stabrex ST 70 Tank Level	gal				57.0	56.5	55.5	55.5	56.0	55.5	55.5	56.0	55.5	54.5	54.5	54.5	54.5	54.5
3D Trasar pH	pH		0-5	10	8.39	8.44	8.43	8.27	7.99	8.38	8.18	7.97	8.40	8.26	8.11	8.21	8.37	8.41
3D Trasar Conductivity	uMhos		0-5	10	1124	1193	1129	1163	1254	1236	1233	1231	1171	1285	1307	1365	1378	1374
#1 Raw Water Pump Oil Level		1/3	1/2	7/8	½ Run	½ Run	½ Run	½ Run	½ Run	½ Run	½ Run	½ Run	½ Run	½	½ Run	½	½ Run	½
#2 Raw Water Pump Oil Level		1/3	1/2	7/8	½	½	½	½	½	½	½	½	½ OFF	½	½ OFF	½	½ OFF	½
Cooling Tower	OK/UNSAT		OK	UNSAT	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Chill Water Pumps	OK/UNSAT		OK	UNSAT	OK/Auto	OK/Auto	OK Auto	OK/Auto	OK/Auto	OK/Auto	OK/Auto	OK/Auto	OK Auto	OK	OK AUTO	OK	OK AUTO	OK
Cooling Tower Pumps	OK/UNSAT		OK	UNSAT	OK/Auto	OK/Auto	OK Auto	OK/Auto	OK/Auto	OK/Auto	OK/Auto	OK/Auto	OK Auto	OK	OK AUTO	OK	OK AUTO	OK
BFP Building																		
#5 BFP Running	OFF/RUN				RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	Run	RUN	Run	OFF	off
Oil Level		1/3	1/2	7/8	½	½	½	½	½	½	½	½	½	½	½	½	½	½
STBY BFP Running	OFF/RUN				OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Oil Level		1/3	1/2	7/8	½	½	½	½	½	½	½	½	½	½	½	½	½	½
#6 BFP Running	OFF/RUN				OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS	—	—	—	—	—	—
Oil Level		1/3	1/2	7/8	OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS	—	—	—	—	—	—
5711 Tank Level	gal				59.0	59.0	57.5	57.5	57.0	56.5	55.5	55.0	54	54	54	53.5	53.5	53.5
RO Building																		
#1 Demin Pump Oil Level		1/3	1/2	7/8	½	½	½	½	½	½	½	½	½ OFF	½	½ OFF	½	½ OFF	½
#2 Demin Pump Oil Level		1/3	1/2	7/8	½	½	½	½	½	½	½	½	½ RUN	½	½ RUN	½	½ RUN	½
Air Receiver Pressure	psig	90	130	150	130	130	130	130	130	130	130	130	130	130	130	130	130	130
Air Receiver Filter D/P	psid		0-5	10	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Air Dryer Filter D/P	psid		0-5	10	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3
Air Compressor Running	1 OR 2				#2	#2	#2	#1	#1	#1	#1	#1	1A 2S	1	1A 2S	1	1A 2S	1
Oil Level		1/3	1/2	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	1= 7/8	7/8	1= 7/8	7/8	1= 7/8	7/8
Off line Air Compressor Oil Level		1/3	1/2	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	2= 7/8	7/8	2= 7/8	7/8	2= 7/8	7/8
Aux Boiler																		
ELIMIN-OX Tank Level	gal				61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61	60	60	60	60	60
BT-3000 Tank Level	gal				72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5
Steam Turbine Building																		
Run Traveling Screens for 15 Minutes	OK/UNSAT				OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Add H2 as needed	OK/ADD				OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
#1 Turbine Bearing Temp	F				—	—	—	—	—	—	—	—	—	—	—	—	—	—
#2 Turbine Bearing Temp	F				122	120	120	121	121	121	118	120	120	122	118	120	118	90
#3 Turbine Bearing Temp	F				107	106	106	106	105	106	104	106	105	108	108	106	109	94
#4 Turbine Bearing Temp	F				145	146	144	146	137	145	140	146	138	142	106	140	110	92
#5 Turbine Bearing Temp	F				110	110	110	110	110	110	109	110	109	110	92	108	96	90
#6 Turbine Bearing Temp	F				107	106	105	106	105	106	105	106	105	106	90	104	92	90
Shift Supervisor Review					DW	E.S.P.	DW	RP	DW	RP	DW	RP	E.S.P.	[illegible]	E.S.P.	[illegible]	E.S.P.	[illegible]

Hunlock Cree .nergy Center

Operator Logs

Week Beginning: 5-7 ~~4/30~~/12

	Units	Min	Norm	Max	5-7-12 4/30/12 Day	5-7-12 4/30/12 Night	5-8-12 ~~5/1/12~~ Day	5-8-12 ~~5/1/12~~ Night	5-9-12 ~~5/2/12~~ Day	5-9-12 ~~5/2/12~~ Night	5-10-12 ~~5/3/12~~ Day	5-10-12 ~~5/3/12~~ Night	5-11-12 ~~5/4/12~~ Day	5-11-12 ~~5/4/12~~ Night	5-12-12 ~~5/5/12~~ Day	5-12-12 ~~5/5/12~~ Night	5-13-12 ~~5/6/12~~ Day	5-13-12 ~~5/6/12~~ Night
Steam Turbine Building																		
#1 CARP Tank Level		1/4	1/2		1/4	1/4	1/2	1/4	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
#1 CARP Temp	F				65	64	62	61	65	72	67	72	58	58	66	64	64	56
#2 CARP Tank Level		1/4	1/2		1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
#2 CARP Temp	F				69	68	70	68	59	60	60	60	64	62	66	64	64	54
North Circ Pump Running	RUN/OFF				RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	OFF	OFF
North Circ Pump Oil Level		1/3	1/2	7/8	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Noth Circ Pump Packing leakage	yes/no				Yes	Yes	NO	Yes	Yes	Yes	Yes	Yes	YES	Yes	YES	yes	NO	NO
South Circ Pump Running	RUN/OFF				OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
South Circ Pump Oil Level		1/3	1/2	7/8	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
South Circ Pump Packing leakage	yes/no				Yes	Yes	NO	Yes	Yes	Yes	Yes	Yes	YES	Yes	YES	yes	NO	NO
#4 SW Pump Run	RUN/OFF				OFF/OOS	OFF/OOS	OOS	OOS	OOS	RUN	RUN	RUN	RUN	OFF	OFF	OFF	OFF	OFF
#4 SW Pump Oil Level		1/3	1/2	7/8	OOS	OOS	OOS	OOS	OOS	RUN	RUN	RUN	RUN	idle	IDLE	idle	IDLE	idle
#4 SW Pump Packing Leakage	yes/no				OOS	OOS	OOS	OOS	OOS	Yes	Yes	Yes	YES	NO	NO	NO	NO	NO
#5 SW Pump Run	RUN/OFF				RUN	RUN	RUN	RUN	RUN	RUN	OFF	RUN	RUN	RUN	RUN	RUN	OFF	OFF
#5 SW Pump Oil Level		1/3	1/2	7/8	RUN	RUN	RUN	RUN	RUN	RUN	IDLE	RUN	RUN	RUN	RUN	RUN	IDLE	idle
#5 SW Pump Packing Leakage	yes/no				Yes	Yes	yes	Yes	Yes	Yes	NO	Yes	YES	yes	YES	yes	NO	NO
SW Press at SW Pump	psig	20			79	80	81	79	81	#4/#5 110/110	90	#5/#4 104/106	120	90	94	92	0	0
SW Press at SW Filters	psig	20			74	75	69	77	78	104	85	100	116	85	88	86	0	0
SW Press To CCW	psig				54	56	55	60	60	85	86	80	90	68	70	66	0	0
#1 CCW Pump Oil Level		1/3	1/2	7/8	1/2 Run	1/2 Run	1/2 Run	1/2 RUN	1/2 RUN	1/2 RUN	1/2	1/2	1/2 RUN	1/2	1/2 RUN	1/2	1/2 RUN	1/2
#2 CCW Pump Oil Level		1/3	1/2	7/8	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	3/4 OFF	3/4	3/4 OFF	3/4	3/4 OFF	3/4
EHC Resevoir Level	inches		7"		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6	6	7	5	9	9
EHC Temp	F	90	95-105	110	101	101	100	101	97	100	96	99	95	100	90	102	94	92
EHC Press	psig	1750	1800	1835	1756	1754	1752	1752	1774	1774	1771	1773	1777	1773	11.86	1756	11.88	12.17
#1 EHC Pump Filter D/P	psid	0		80	48	48	45	45	0	0	0	0	0	0	0	42	0	0
#2 EHC Pump Filter D/P	psid	0		80	0	0	0	0	35	33	36	34	36	35	0	0	0	0
EHC Kidney Pump Filter D/P	psid	0		80	8.0	8.0	9	8.0	8.0	8.0	8.0	8.0	8.0	8	8.0	8	8.0	8
C OIL DESICCANT FILTER COLOR			BLUE	PINK	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	BLUE	Blue	Blue	Blue	BLUE	Blue
Condensate Pump Running	3A or 3B				3A	3A	3A	3A	3A	3A	3A	3A	3A	3A	3A	3A	NONE	None
Oil Level		1/3	1/2	7/8	7/8 7/8	7/8 7/8	7/8 7/8	7/8 7/8	7/8 7/8	7/8 7/8	7/8 7/8	7/8 7/8	7/8 7/8	7/8 7/8	7/8 7/8	7/8 7/8	7/8 7/8	7/8 7/8
Iron Horse Oil Level					OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Iron Horse Temp					88	99	100	100	83	100	85	101	85	100	80	100	85	75
ne Strainer (turned 3 times)	yes/no				Yes	Yes	yes	Yes	Yes	Yes	Yes	Yes	YES	yes	YES	yes	YES	yes
Seal Oil Pressure	psig				27.9	27.6	27.0	27.0	27.0	27.0	28.1	28.0	27.5	27.5	28.5	27	27.5	28
H2/Turbine LO Coolers	OK				OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Turbo-Toc	OK				OK/RUN	OK/RUN	OK/RUN	OK/RUN	OK/RUN	OK/RUN	OK/RUN	OK/RUN	OK RUN	OK	OK RUN	OK	OK RUN	OK
ERATOR FUEL OIL LEVEL	Gal	1/2	FULL		FULL	FULL	FULL	FULL	FULL	FULL	FULL	FULL	FULL	FULL	FULL	FULL	FULL	FULL
t Supervisor Review					DW	S.P.	DW	RS	DW	RS	DW	RS	S.P.	[illegible]	S.P.	[illegible]	S.P.	[illegible]

Hunlock Creek Energy Center

Operator Logs

Week Beginning: ~~4/30/12~~ 5-7

	Units	Min	Norm	Max	5-7-12 ~~4/30/12~~ Day	Night	5-8-12 ~~5/1/12~~ Day	Night	5/9-12 ~~5/2/12~~ Day	Night	5-10-12 ~~5/3/12~~ Day	Night	5-11-12 ~~5/4/12~~ Day	Night	5-12-12 ~~5/5/12~~ Day	Night	5-13-12 ~~5/6/12~~ Day	Night
HRSG																		
#5 HRSG Walkdown	OK/UNSAT		OK	UNSAT	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
#6 HRSG Walkdown	OK/UNSAT		OK	UNSAT	OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS	—	—	—	—	—	—
#5 Inlet House Prefilter D/P	in-Wg	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0
#5 Inlet House Filter D/P	in-Wg	0		3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
#6 Inlet House Prefilter D/P	in-Wg	0			OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS	—	—	—	—	—	—
#6 Inlet House Filter D/P	in-Wg	0		3.5	OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS	—	—	—	—	—	—
#6 CTG Hydraulics Oil Level		1/3	FULL		OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS	—	—	—	—	—	—
#6 Turbine Lube Oil Level		1/3	3/4		OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS	—	—	—	—	—	—
#6 CTG Generator Oil Level		1/3	7/8		OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS	—	—	—	—	—	—
#5 CTG Hydraulics Oil Level		1/3	FULL		Full	Full	Full	Full	Full	Full	Full	Full	FULL	Full	FULL	Full	FULL	Full
#5 Turbine Lube Oil Level		1/3	3/4		3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	FULL	Full	FULL	Full	FULL	Full
#5 CTG Generator Oil Level		1/3	7/8		7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8
#5 CEM Shack			OK	UNSAT	OK/LOG	OK	OK	OK	OK	OK	OK/LOG	OK	OK LOG	OK	OK LOG	OK	OK LOG	OK
#6 CEM Shack			OK	UNSAT	OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS	—	—	—	—	—	—
Main Gas Inlet Press	psig	620	660	690	645	650	643	645	648	650	645	650	645	650	650	650	645	650
#5 Gas Coalescer D/P	psid		0-5	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
#6 Gas Coalescer D/P	psid				OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS	—	—	—	—	—	—
NH3 Cont Level	inches		1-3	5	1"	1"	1"	1"	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"
Chem/FO Unloading Cont Level	inches		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CTG #5 DRAIN TANK VALT	EMPTY/UNSAT		EMPTY	PUMP	3"	5"	5"	6"	1"	4"	1"	2"	2"	2"	2"	2"	2"	2"
CTG #6 DRAIN TANK VALT	EMPTY/UNSAT		EMPTY	PUMP	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"
CTG #5 TURBINE LUBE OIL FILTER D/P	psid		0-10	15	2.0	2.1	2.0	2.2	2.0	2.0	2.0	2.0	2.0	2.0	0	2.0	0	0
CTG #5 SCAVENGING OIL FILTER D/P	psid		0-10	15	2.5	3.0	2.5	2.7	2.5	2.5	2.5	2.5	2.5	2.5	0	2.5	0	0
CTG #5 VG OIL FILTER D/P	psid		0-10	15	12.0	12.1	12.1	12.2	12.1	12.1	12.1	12.1	12.1	12.1	0	12	0	0
CTG #5 GENERATOR LUBE OIL FILTER D/P	psid		0-10	15	5.0	5.5	5.0	5.2	5.0	5.0	5.0	5.0	5.0	5.0	0	5.0	0	0
CTG #6 TURBINE LUBE OIL FILTER D/P	psid		0-10	15	OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS	—	—	—	—	—	—
CTG #6 SCAVENGING OIL FILTER D/P	psid		0-10	15	OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS	—	—	—	—	—	—
CTG #6 VG OIL FILTER D/P	psid		0-10	15	OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS	—	—	—	—	—	—
CTG #6 GENERATOR LUBE OIL FILTER D/P	psid		0-10	15	OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS	—	—	—	—	—	—
Shift Supervisor Review					DW	ESR	DW	RB	DW	RB	DW	RB	ESP	[illegible]	ESP	[illegible]	ESP	[illegible]

If drain tank valt has water it needs to be pumped down and documented and make sure it is pumped to an oil water seperator

*- Circle the running pump

Hunlock Creek Energy Center

Operator Logs

Week Beginning: ~~4/30~~ 5-7 /12

	Units	Min	Norm	Max	5-7-12 4/30/12 Day	Night	5-8-12 ~~5/1/12~~ Day	Night	5-9-12 ~~5/2/12~~ Day	Night	5-10-12 ~~5/3/12~~ Day	Night	5-11-12 ~~5/4/12~~ Day	Night	5/12/12 ~~5/5/12~~ Day	Night	5-13-12 5/6/12 Day	Night
Chiller Logs Unit 2*																		
Online or Offline	on/off				ON	ON	ON	ON	ON	ON	ON	ON	OFF	ON	OFF	ON	OFF	OFF
Valves Lined Up or By-passed	in/out				IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Evaporator																		
Inlet Temp	Deg F				54.8	48.5	50.4	51.7	53.1	48.3	49.0	50.8		49.2		49		
Outlet Temp	Deg F				52.0	47.0	50.4	51.9	53.4	46.6	49.0	51.1		49		46.8		
Refrigerant Press					-6.9	-7.7	-7.1	-6.8	-6.6	-7.7	-7.3	-7.0		-7.8		-8.1		
Condenser																		
Inlet Temp	Deg F				65.4	71.1	65.3	63.6	63.7	70.7	67.4	66.9		67.5		70.8		
Outlet Temp	Deg F				69.1	73.2	65.2	63.7	63.8	72.8	67.6	66.9		67.7		73.7		
Refrigerant Press					-7.4	-8.0	-7.2	-6.9	-6.7	-8.1	-7.4	-7.1		-7.5		-2.3		
Compressor																		
Starts					61	64	64	64	64	66	67	63		69		70		
Runtime	Hours				313:51	317:12	317:4	317:4	317:4	324:14	325:18	328:15		332:39		341:56		
Oil Tank Pressure	psig				-7.6	-7.8	-7.3	-7.1	-6.9	-7.9	-7.6	-7.1		-7.6		-7.9		
Oil Discharge Pressure	psig				15.2	14.8	-7.2	-7.0	-6.8	-14.6	-7.5	-7.2		-7.4		12.4		
Oil Differential Pressure	psid				22.70	22.57	0	0	0	22.39	0	0		.13		20.17		
Oil Level			*		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Oil Tank Temp	Deg F				118.5	128.9	144.2	139.6	138.9	108.7	146.4	142.5		87.8		107.3		
IGV 1 Position	%				16.7	10.3	0	0	0	10.2	0	0		0		11.6		
IGV 2 Position	%				66.6	58.6	0	0	0	56.2	0	0		0		54.5		
IGV 1 Steps					9503	5502	0	0	0	5411	0	0		0		6683		
IGV 2 Steps					32027	23732	0	0	0	23483	0	0		0		25485		
Motor																		
% RLA L1, L2, L3	%				40.7	33.6	0	0	0	34.6	0	0		0		34.1		
Amps L1, L2, L3	amps				111	97	0	0	0	97	0	0		0		95		
Volts AB, BC, CA	Volts				2363	2380	2378	2389	2883	2360	2378	2382		2385		2367		
Power kW	kW				377	286.6	0	0	0	280.9	0	0		0		295.9		
pF					0.78	0.72	-.02	-.02	0	0.72	0	0		0		.74		
Winding Temp #1	Deg F				82.2	83.6	67.9	63.1	61.8	83.3	74.7	69.2		81.6		83.9		
Winding Temp #2	Deg F				82.3	83.5	68.3	63.0	62.5	83.1	75.9	69.1		81.9		83.7		
Winding Temp #3	Deg F				82.1	83.6	68.9	64.3	62.3	87.2	75.3	70.4		81.7		88.1		
Shift Supervisor Review					DW	E.S.P.	DW	OJ	DW	DW	RP	E.S.P.	[illegible]	E.S.P.	[illegible]	E.S.P.	[illegible]	

*= OIL SUMP IS LOCATED ON THE ROAD SIDE OF THE CHILLER UNIT. NORMAL OIL LEVEL SHOULD BE; BOTTOM SIGHT GLASS FULL AND JUST BE SEEN IN TOP GLASS. THERE ARE BALLS IN THE SIGHT GLASS IT MAKE IT EASIER TO SEE. (BOTTOM GLASS BALL AT THE TOP AND TOP GLASS BALL ON THE BOTTOM).

IN FREEZE PROTECTION MODE

OFFLINE

Hunlock Creek Energy Center

Operator Logs

Week Beginning: ~~4/30/12~~ 5-7

	Units	Min	Norm	Max	5-7-12 4/30/12 Day	5-7-12 4/30/12 Night	5-8-12 ~~5/1/12~~ Day	5-8-12 ~~5/1/12~~ Night	5/9/12 ~~5/2/12~~ Day	5/9/12 ~~5/2/12~~ Night	5/10/12 ~~5/3/12~~ Day	5/10/12 ~~5/3/12~~ Night	5-11-12 ~~5/4/12~~ Day	5-11-12 ~~5/4/12~~ Night	5-12-12 ~~5/5/12~~ Day	5-12-12 ~~5/5/12~~ Night	5-13-12 ~~5/6/12~~ Day	5-13-12 ~~5/6/12~~ Night
Chiller Logs Unit 1*																		
Online or Offline	on/off				ON	ON	ON	~~OFF~~	ON	ON	ON	ON	OFF	ON	OFF	ON	OFF	OFF
Valves Lined Up or By-passed	in/out				IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Evaporator																		
Inlet Temp	Deg F				53.3	48.5	50.6	51.7	53.1	46.3	49.0	50.8		49.2		49.0		
Outlet Temp	Deg F				51.6	46.9	50.6	51.9	53.4	46.6	49.0	51.1		49		46.9		
Refrigerant Press					-6.9	-7.7	-7.1	-6.8	-6.6	-7.8	-7.3	-7.0		-7.7		-7.8		
Condenser																		
Inlet Temp	Deg F				64.9	71.0	65.3	63.6	63.7	70.5	67.4	66.9		67.6		70.9		
Outlet Temp	Deg F				69.0	73.0	65.3	63.7	63.8	72.6	67.6	66.9		67.7		73.3		
Refrigerant Press					-7.4	-8.0	-7.1	-6.9	-6.7	-8.1	-7.4	-7.1		-7.7		-8.0		
Compressor																		
Starts					57	59	60	60	60	61	63	63		69		66		
Runtime	Hours				36721	364.5	364.4	364.4	364.4	364.9	370.15	370.15		371.4		372.20		
Oil Tank Pressure	psig				-7.5	-8.1	-7.2	-7.0	-6.8	-8.2	-7.5	-7.1		-7.8		-8.2		
Oil Discharge Pressure	psig				-7.6	-8.2	-7.2	-7.0	-6.8	-8.2	-7.5	-7.2		-7.8		-8.2		
Oil Differential Pressure	psid				0	0	0	0	0	0	0	0		0		0		
Oil Level			*		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Oil Tank Temp	Deg F				139.2	143.1	144.4	145.8	140.2	121.6	145.5	142.1		144.2		140.1		
IGV 1 Position	%				0	0	0	0	0	0	0	0		0		0		
IGV 2 Position	%				0	0	0	0	0	0	0	0		0		0		
IGV 1 Steps					0	0	0	0	0	0	0	0		0		0		
IGV Steps					0	0	0	0	0	0	0	0		0		0		
Motor																		
% RLA L1, L2, L3	%				0	0	0	0	0	0	0	0		0		0		
Amps L1, L2, L3	amps				0	0	0	0	0	0	0	0		0		0		
Volts AB, BC, CA	Volts				2370	2386	2375	2379	2385	2362	2381	2383		2398		2374		
Power kW	kW				0	0	0	0	0	0	0	0		0		0		
pF					0	0	0	0	0	.01	0	0		0		0		
Winding Temp #1	Deg F				42.9	79.3	67.6	62.6	62.4	79.2	74.4	68.5		77.9		71.4		
Winding Temp #2	Deg F				63.6	82.8	64.7	63.4	62.3	82.9	75.3	69.5		78.0		72.1		
Winding Temp #3	Deg F				62.4	98.7	68.2	63.4	63.6	78.5	76.0	69.0		78.4		71.8		
Shift Supervisor Review					DW	ESP	DW	RP	DW	RP	DW	H	ESP	ESP	ESP	ESP	ESP	[illegible]

* = OIL SUMP IS LOCATED ON THE ROAD SIDE OF THE CHILLER UNIT. NORMAL OIL LEVEL SHOULD BE; BOTTOM SIGHT GLASS FULL AND JUST BE SEEN IN TOP GLASS. THERE ARE BALLS IN THE SIGHT GLASS IT MAKE IT EASIER TO SEE. (BOTTOM GLASS BALL AT THE TOP AND TOP GLASS BALL ON THE BOTTOM).

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Hunlock Creek Ene Center

Operator Logs

Week Beginning: 5-7 ~~4/30/12~~

		Units	Min	Norm	Max	5-7-12 4/30/12 Day	Night	5-8-12 ~~5/1/12~~ Day	Night	5-9-12 ~~5/2/12~~ Day	Night	5-10-12 ~~5/3/12~~ Day	Night	5-11-12 ~~5/4/12~~ Day	Night	5-12-12 5/5/12 Day	Night	5-13-12 ~~5/6/12~~ Day	Night
RO Unit																			
Online or Offline		ON/OFF				ON	ON	ON	ON	ON	ON	ON	ON	OFF	ON	OFF		OFF	OFF
Multi Media Filter	**Tag Number**																		
press diff between water inlet and outlet	PDIS 103	psid		3	5	4.9	5.1	5.1	5.7	5.2	5.5	5.3	5.8		5.5		6.0		
inlet water flow meter	FIT 101	GPM		165		198.0	188.6	191.1	195.0	185.4	173.4	185.3	174.8		185.9		189.7		
outlet water pressure	PI 102	psig		40		39	39	42	38	39	38	38	38		40		40		
inlet water pressure	PI 101	psig		40		47	48	50	48	47	48	47	48		48		48		
RO (south side)	**Tag Number**																		
2nd pass reject pressure	PI 218	psig		65		59	60	59	60	59	57	59	60		60		60		
RO feed	PI 215	psig		90		76	80	77	80	80	80	75	79		79		79		
3rd stage In	PI 210	psig		90		79	80	80	79	86	80	86	86		86		86		
RO feed	PI207	psig		120		110	110	115	115	111	115	112	120		122		120		
booster pump 1st pass pressure	PI 205	psig		288		290	290	287	290	290	289	290	290		286		286		
booster pump 2nd pass pressure	PI 213	psig		280		290	290	290	290	290	290	289	290		292		290		
Fil-Trek water pressure into filter	PI203	psig		35		38	40	40	39	39	40	39	38		38		38		
Fil-Trek water pressure out of filter	PI 204	psig		35		34	36	40	35	36	34	34	34		36		36		
Left of Panel (chemistry)	**Tag Number**																		
2nd pass permeate conductivity	AIT 203	us/cm				2.061	1.747	1.904	1.541	2.083	1.837	2.164	1.527		1.764		1.68		
feed conductivity	AIT 202A	us/cm				126.6	136.7	187.1	132.1	132.7	149.9	138.1	125.8		138.2		131.6		
1st pass permeate conductivity	AIT 202B	us/cm				2.565	2.530	2.610	2.257	3.033	2.603	3.460	1.895		2.365		1.984		
Feed ORP	AIT 201	Mv	100	200	250+	197	180	196	176	199	189	198	194		202		205		
Fil-Trek press diff between inlet and outlet	PDIS 201	psid				0	0		0	0	0	0	0		0		0		
Panel	**Tag Number**																		
1st pass Recovery rate	%					73	71	74	73	72	72	75	73		73		74		
1st pass reject flow	GPM					32.1	33.2	31.1	31.5	31.9	33.2	30.0	33.8		32.4		29.9		
2nd pass reject Flow	FIT 204	GPM		14		10.5	10.5	10.6	11.0	10.4	10.8	10.6	11.2		11.2		11.2		
2nd pass recovery rate	%					91	91	91	90	91	91	91	90	✓	90	✓	91		
Demin Tank level	%		50	90	100	93	94	95	97	93	93	93	97	95	93	96	96	96	96
Permeate tank level	%		50	80	100	71	79	70	72	78	73	71	76	70	78	81	75	74	72
RO (north side)	**Tag Number**																		
1st pass reject flow	FIT 202	GPM		30		33.16	34.65	31.2	31.48	32.59	34.17	27.65	32.26		31.32		32.17		
1st pass permeate flow	FIT 201	GPM		80		86.4	87.38	88.5	87.42	89.42	88.92	89.92	90.83		82.14		89.58		
2nd pass permeate flow	FIT 203	psig		85		101.2	100.0	102.1	101.7	101.8	101.7	102.0	99.47		104.3		99.61		
2nd stage In	PI 217	psig		80		69	69	68	69	68	68	67	70		70		70		
2nd pass permeate flow pressure	PI 216	psig		10		12	12	12	12	12	12	12	12		12		12		
1st pass reject flow pressure	PI 211	psig		70		58	57	60	59	55	58	56	65		65		65		
1st pass permeate flow pressure	PI 208	psig		25		29	28	31	29	29	28	28	36		38		38		
2nd stage In	PI 209	psig		100		90	89	91	90	90	89	88	100		100		100		
Chemicals																			
Antiscalant (permatreat PC-191T) level		US Gal	10		70	67	66	66	66	66	65	65	65	65	65	65	65	64	64
Antiscalant pump pressure		psig				42	42	40	42	42	42	42	40	42	40	40	40	40	18
Sodium Bisulfite (permacare PC-7408) level		US Gal	10		70	49	49	44	44	40	40	39	38	39	39	39	37	37	37
Sodium Bisulfite pump pressure		psig				42	42	42	41	38	40	41	36	42	46	40	40	40	0
Permeate Pumps to Demin Tank																			
Permeate Transfer pump		#1 or #2				None	#2	None	None	#1	None	None	#2	None	#2	None	None	None	None
Transfer Press	PI 301	PSI				27	56	27	27	56	27	27	51	26	56	26	26	26	26
Demin Tank filter serial Number	# 17788	on/off				ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
in Tank filter serial Number	# 15904	on/off				OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON
Shift Supervisor Review						DW	E.S.P.	DW	RS	DW	RS	DW	AV	E.S.P.	RS	E.S.P.	RS	E.S.P.	RS

Hunlock Cre Energy Center

Operator Logs

Week Beginning: 5-7 ~~4/30/12~~

	Units	Min	Norm	Max	5-7-12 ~~4/30/12~~ Day	Night	5-8-12 ~~5/1/12~~ Day	Night	5-9-12 ~~5/2/12~~ Day	Night	5-10-12 ~~5/3/12~~ Day	Night	5-11-12 ~~5/4/12~~ Day	Night	5-12-12 ~~5/5/12~~ Day	Night	5-13-12 ~~5/6/12~~ Day	Night
T3																		
Winding Temperature	DEG C				24	29	27	30	24	34	23	28	19	32	20	24	19	18
Oil Temperature	DEG C				25	30	30	30	25	34	24	28	19	32	20	24	19	18
Transformer Press	psig				-.1	-.1	-.1	-.5	0	-1.0	-.1	-.1	-1.6	1.0	-1.1	1.5	-1.5	-.5
Liquid Level					OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Bushing Levels					OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Containment Level					OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
52T3																		
SF6 Press	psig				68	68	68	68	69	70	68	67	68	72	70	72	70	68
Counter					352	352	352	352	353	353	354	354	359	359	359	360	360	360
SST3																		
Winding Temperature	DEG C				33	33	33	31	36	38	32	31	26	28	24	26	24	20
Oil Temperature	DEG C				35	32	33	29	33	35	33	32	26	28	26	26	24	20
Transformer Press	psig				2.0	1.7	1.8	1.9	2.0	2.5	2.0	1.9	1.4	1.5	1.4	1.5	1.3	1.0
Liquid Level					OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Bushing Levels					OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Containment Level					3"	3"	4"	6"	6"	5"	4"	4"	1"	1"	1"	1"	1"	1"
T5																		
Winding Temperature	DEG C				65	67	68	80	60	79	62	75	60	78	62	74	64	66
Oil Temperature	DEG C				61	64	72	72	55	72	58	75	56	72	59	68	62	63
Pressure	psig				3.9	6.2	6.0	5.6	3.1	6.6	3.4	6.4	3.0	6.0	4.0	5.0	4.1	2.0
Liquid Level					OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Containment Level					OK	OK	1"	1"	1"	1"	1"	1"	DRAINED	OK	OK	OK	OK	OK
Bushing Levels					OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
T6																		
Winding Temperature	DEG C				16	15	16	16	16	20	15	16	10	14	12	16	14	16
Oil Temperature	DEG C				17	16	14	16	18	22	16	16	10	14	12	16	14	16
Pressure	psig				-.9	-.8	0	-.5	-.6	-.6	-.9	-.6	-.6	-.5	-.5	-.5	-.6	-.5
Liquid Level					OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Containment Level					OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Bushing Levels					OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
52T5																		
SF6 Pressure	psig				70	69	70	69	70	72	70	69	68	70	68	72	70	70
Counter					163	163	163	163	163	163	163	163	163	163	163	163	163	163
52T6																		
SF6 Pressure	psig				67	66	68	68	68	76	67	67	67	72	68	72	69	70
Counter					146	146	146	146	146	146	146	146	146	146	146	146	146	146
52U																		
SF6 Pressure	psig				64	64	65	64	64	66	64	65	62	68	64	66	65	65
Counter					97	97	97	97	97	97	97	97	97	97	97	97	97	97
Shift Supervisor Review	INIT				DW	E.S.P.	DW	RR	DW	RR	DW	RR	E.S.P.	[illegible]	E.S.P.	[illegible]	E.S.P.	[illegible]