Hunlock Creek Energy Center

Operator Logs

Week Beginning: 5/28/12

	Units	Min	Norm	Max	5/28/12 Day	5/28/12 Night	5/29/12 Day	5/29/12 Night	5/30/12 Day	5/30/12 Night	5/31/12 Day	5/31/12 Night	6/1/12 Day	6/1/12 Night	6/2/12 Day	6/2/12 Night	6/3/12 Day	6/3/12 Night
Steam Turbine Building																		
#1 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
#1 CARP Temp	F				73	76	76	78	78	82	75	79	75	76	74	76	74	72
#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				77	83	80	84	76	80	76	79	74	76	72	74	70	70
North Circ Pump Running	RUN/OFF				off	off	off	OFF	off	OFF	OFF	OFF	off	OFF	off	off	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				NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
South Circ Pump Running	RUN/OFF				Run	Run	Run	Run	Run	Run	Run	RUN	Run	RUN	Run	RUN	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	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	NO	NO
#4 SW Pump Run	RUN/OFF				Run	Run	Run	RUN	Run	RUN	Run	RUN	Run	RUN	Run	RUN	off	off
#4 SW Pump Oil Level		1/3	1/2	7/8	Run	Run	Run	RUN	Run	RUN	Run	RUN	Run	RUN	Run	RUN	1/2	1/2
#4 SW Pump Packing Leakage	yes/no				yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	NO	NO
#5 SW Pump Run	RUN/OFF				Run	Run	Run	RUN	Run	RUN	Run	RUN	Run	RUN	Run	RUN	off	Run
#5 SW Pump Oil Level		1/3	1/2	7/8	Run	Run	Run	RUN	Run	RUN	Run	RUN	Run	RUN	Run	RUN	1/2	Run
#5 SW Pump Packing Leakage	yes/no				yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	NO	yes
SW Press at SW Pump	psig	20			125	123	123	126	122	119	124	120	126	125	130	124	0	104
SW Press at SW Filters	psig	20			117	113	116	115	115	115	118	108	111	118	120	118	0	96
SW Press To CCW	psig				105	92	100	98	92	95	94	89	92	95	96	95	0	98
#1 CCW Pump Oil Level		1/3	1/2	7/8	3/4	3/4 off	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4 OFF	3/4 off	3/4 OFF	3/4 off	3/4 off
#2 CCW Pump Oil Level		1/3	1/2	7/8	3/4	3/4 Run	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4 Run	3/4	3/4 RUN	3/4 Run	3/4 Run
EHC Resevoir Level	inches		7"		7	7.0	7	7	7	7	7	7	5.5	6	6	6	7.5	7.5
EHC Temp	F	90	95-105	110	102	105	103	105	102	104	101	105	103	100	92	108	100	95
EHC Press	psig	1750	1800	1835	1788	1787	1787	1786	1791	1788	1787	1788	1771	1786	11607	1787	11594	11565
#1 EHC Pump Filter D/P	psid	0		80	0	0	0	0	9	9	10	10	10	11	0	0	0	0
#2 EHC Pump Filter D/P	psid	0		80	20	20	20	20	0	0	0	0	0	0	0	19	0	0
EHC Kidney Pump Filter D/P	psid	0		80	8	8.5	8	8	8	8	8	8	8	9	8	8	8	8
EHC 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				3B	3B	3B	3B	3A	3A	3B	3A	3A	3A	3A	3A	3A	3A
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					110	110	110	110	90	110	85	105	83	104	85	105	81	83
In Line Strainer (turned 3 times)	yes/no				yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Seal Oil Pressure	psig				26.5	26.0	27	27.5	27	27	27	27	30	29	29.0	29	29.0	29.0
Backflush H2/Turbine LO Coolers	OK				OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Turbo-Toc	OK				OK	OK/run	OK	OK/RUN	OK	OK/Run	OK	OK/RUN	OK/Run	OK RUN	OK/Run	OK RUN	OK/Run	OK/Run
BACK UP GENERATOR FUEL OIL LEVEL	Gal	1/2	FULL		Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
Shift Supervisor Review					ESP	RV	E.S.P.	DW	ESP	DW	RV	DW	RV	ESP.	RV	E.S.P.		E.S.P.

Hunlock Creek Energy Center

Operator Logs

Week Beginning: 5/28/12

	Units	Min	Norm	Max	5/28/12 Day	5/28/12 Night	5/29/12 Day	5/29/12 Night	5/30/12 Day	5/30/12 Night	5/31/12 Day	5/31/12 Night	6/1/12 Day	6/1/12 Night	6/2/12 Day	6/2/12 Night	6/3/12 Day	6/3/12 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	—	—	—	—	—	—	—	—	—	—	—	—	—	—
#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			—	—	0	0	0	0	0	0	0	0	0	0	0	0
#6 Inlet House Filter D/P	in-Wg	0		3.5	—	—	0	0	0	0	0	0	0	0	0	0	0	0
#6 CTG Hydraulics Oil Level		1/3	FULL		—	—	full	full	full	full	full	full	Full	Full	Full	Full	Full	Full
#6 Turbine Lube Oil Level		1/3	3/4		—	—	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
#6 CTG Generator Oil Level		1/3	7/8		—	—	full	full	full	full	full	full	Full	Full	Full	Full	Full	Full
#5 CTG Hydraulics Oil Level		1/3	FULL		full	Full	full	full	7/8	7/8	7/8	full	Full	7/8	7/8	7/8	7/8	7/8
#5 Turbine Lube Oil Level		1/3	3/4		full	Full	full	full	full	full	full	full	Full	7/8	7/8	7/8	7/8	7/8
#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	Log	OK	Log	OK	Log	OK	Log	OK	OK/log	OK	OK/log	OK	log/OK	OK
#6 CEM Shack			OK	UNSAT	—			—		—	—	—	—	—				
Main Gas Inlet Press	psig	620	660	690	650	650	645	650	650	645	645	650	650	650	685	650	675	670
#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				—	—	0	0		0	0	0	0	0	0	0	0	0
NH3 Cont Level	inches		1-3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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"	3"	3"	3"	3"	3"	3"	3"	3.4	3	4"	3"	3"	3"
CTG #6 DRAIN TANK VALT	EMPTY/UNSAT		EMPTY	PUMP	3"	3"	3"	3"	3"	3"	3"	3"	3.1	3	4"	3"	3"	3"
CTG #5 TURBINE LUBE OIL FILTER D/P	psid		0-10	15	2	2.0	2.0	2.0	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	3	3.1	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	0	3.5	0	0
CTG #5 VG OIL FILTER D/P	psid		0-10	15	12.2	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	11.8	0	12.2	0	0
CTG #5 GENERATOR LUBE OIL FILTER D/P	psid		0-10	15	5	5.0	5.0	5.0	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	—	—	0	0	0	0	0	0	0	0	0	0	0	1.0
CTG #6 SCAVENGING OIL FILTER D/P	psid		0-10	15	—	—	0	0	0	0	0	0	0	0	0	0	0	4.0
CTG #6 VG OIL FILTER D/P	psid		0-10	15	—	—	0	0	0	0	0	0	0	0	0	0	0	5.0
CTG #6 GENERATOR LUBE OIL FILTER D/P	psid		0-10	15	—	—	0	0	0	0	0	0	0	0	0	0	0	4.0
Shift Supervisor Review					E.S.P.	RL	E.S.P.	DW	E.S.P.	DW	RL	DW	RL	E.S.P.	RL	E.S.P.		E.S.P.

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 ergy Center

Operator Logs

Week Beginning: 5/28/12

	Units	Min	Norm	Max	5/28/12 Day	5/28/12 Night	5/29/12 Day	5/29/12 Night	5/30/12 Day	5/30/12 Night	5/31/12 Day	5/31/12 Night	6/1/12 Day	6/1/12 Night	6/2/12 Day	6/2/12 Night	6/3/12 Day	6/3/12 Night
Chiller Building																		
3D Trasar #DT184 Tank Level	gal				26.5	27.0	26.5	26.5	26.5	26.5	26.5	26.5	27.0	26	26.5	26	26.5	27.0
3D Trasar #DT191 Tank Level	gal				53.5	54.5	53.5	53.5	53.5	53.5	53.5	53.3	54.0	53	53.5	53	53.5	54.0
Stabrex ST 70 Tank Level	gal				46	46.5	45.5	44.5	44.5	44.0	43.5	43	43.5	42	42.5	42	42.0	46.5
3D Trasar pH	pH		0-5	10	8.20	8.38	8.30	8.35	8.50	8.56	8.59	8.60	8.13	8.57	8.41	8.59	8.63	6.04
3D Trasar Conductivity	uMhos		0-5	10	2319	2543	2596	2742	2776	2906	2880	3006	2535	2653	2631	2650	2594	3008
#1 Raw Water 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 OFF	1/2 OFF	1/2 OFF	1/2 OFF	1/2 OFF
#2 Raw Water Pump Oil Level		1/3	1/2	7/8	1/2	1/2 RUN	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2 RUN	1/2 RUN	1/2 RUN	1/2	1/2
Cooling Tower	OK/UNSAT		OK	UNSAT	OK	OK/Auto	OK	OK Auto	OK	OK AUTO	OK	OK AUTO	OK/Auto	OK AUTO	OK/Auto	OK Auto	OK/Auto	OK/Auto
Chill Water Pumps	OK/UNSAT		OK	UNSAT	OK	OK/Auto	OK	OK AUTO	OK	OK AUTO	OK	OK Auto	OK/Auto	OK AUTO	OK/Auto	OK Auto	OK/Auto	OK/Auto
Cooling Tower Pumps	OK/UNSAT		OK	UNSAT	OK	OK/Auto	OK	OK AUTO	OK	OK AUTO	OK	OK AUTO	OK/Auto	OK AUTO	OK/Auto	OK Auto	OK/Auto	OK/Auto
BFP Building																		
#5 BFP Running	OFF/RUN				Run	Run	Run	RUN	Run	Run	Run	Run	Run	RUN	OFF	RUN	OFF	OFF
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
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	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
#6 BFP Running	OFF/RUN				OOS	—	OOS	OOS	—	OOS	—	OOS	OOS	—	—	—	—	—
Oil Level		1/3	1/2	7/8	OOS	—	OOS	OOS	—	OOS	—	OOS	OOS	—	—	—	—	—
5711 Tank Level	gal				41	40.5	40.5	40.2	40	40	40	39.6	40.0	39.5	40.0	39	40.0	35.0
RO Building																		
#1 Demin 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 RUN	1/2 RUN	1/2 RUN	1/2 RUN	1/2 RUN
#2 Demin 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 OFF	1/2 OFF	1/2 OFF	1/2 OFF	1/2 OFF
Air Receiver Pressure	psig	90	130	150	130	130	130	130	130	130	130	130	130	130	130	128	125	130
Air Receiver Filter D/P	psid		0-5	10	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.2	1.5	1.4	1.5	1.5
Air Dryer Filter D/P	psid		0-5	10	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.2	.3	.3
Air Compressor Running	1 OR 2				2	2	2	2	1	1	1	2	2 1S	1 + 2	2A 1A	1A 2S	1A 2S	1A 2S
Oil Level		1/3	1/2	7/8	7/8	7/8	7/8	2-7/8	7/8	1-7/8	7/8	2-7/8	2-7/8	1-7/8	2-7/8	1-7/8	1-7/8	1-7/8
Off line Air Compressor Oil Level		1/3	1/2	7/8	7/8	7/8	7/8	1-7/8	7/8	2-7/8	7/8	1-7/8	1-7/8	2-7/8	1-7/8	2-7/8	2-7/8	2-7/8
Aux Boiler																		
BT-3000 Tank Level	gal				72.5	72.5	72.5	72.5	72.5	72.5	72.5	72	72.5	72	72.5	72	72	72
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	128	124	124	125	125	118	124	106	126	109	127	101	97
#3 Turbine Bearing Temp	F				109	110	110	110	108	110	102	110	93	108	97	108	90	80
#4 Turbine Bearing Temp	F				143	144	144	142	140	142	110	143	96	144	100	144	98	89
#5 Turbine Bearing Temp	F				110	110	110	110	108	110	102	110	90	112	92	110	96	90
#6 Turbine Bearing Temp	F				108	108	108	108	106	108	100	108	90	108	90	108	94	88
Shift Supervisor Review					ESP	RJ	ESP	DW	ESP	DW	[illegible]	DW	[illegible]	ESP	[illegible]	ESP		ES

Hunlock Creek Energy Center

Operator Logs

Week Beginning: 5/28/12

	Units	Min	Norm	Max	5/28/12 Day	5/28/12 Night	5/29/12 Day	5/29/12 Night	5/30/12 Day	5/30/12 Night	5/31/12 Day	5/31/12 Night	6/1/12 Day	6/1/12 Night	6/2/12 Day	6/2/12 Night	6/3/12 Day	6/3/12 Night
T3																		
Winding Temperature	DEG C				35	45	39	43	30	40	25	38	22	36	20	30	21	28
Oil Temperature	DEG C				35	46	39	44	30	40	25	38	20	34	22	30	22	28
Transformer Press	psig				.5	2.0	1.0	1.6	-.5	.6	-1	-.5	1.5	1.0	1.2	.2	1.5	1.5
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				72	77	73	73	72	76	68	72	74	72	69	72	68	68
Counter					369	369	369	369	370	370	371	372	373	373	374	374	375	375
SST3																		
Winding Temperature	DEG C				40	48	41	43	39	45	32	40	35	36	32	39	32	34
Oil Temperature	DEG C				39	47	42	44	39	42	32	40	32	38	31	37	33	33
Transformer Press	psig				2.0	3.6	2.5	3.9	2.0	3.1	1.5	2.5	1.5	2.0	1.9	2.4	1.6	1.5
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					1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	DRAINED	OK	OK
T5																		
Winding Temperature	DEG C				61	80	65	80	57	79	48	79	57	75	42	79	40	39
Oil Temperature	DEG C				59	79	63	73	53	76	45	75	49	73	42	75	40	39
Pressure	psig				3.5	7.0	4.0	5.5	2.5	6.1	1.5	6.1	1.9	5.5	1.3	6.4	1.0	1.0
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	DRAINED	OK	OK
Bushing Levels					OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
T6																		
Winding Temperature	DEG C				41	50	43	43	40	47	38	42	37	34	36	40	36	39
Oil Temperature	DEG C				41	50	43	43	40	46	38	41	36	34	36	40	36	39
Pressure	psig				-1	-3	-1	-.5	-1	-.5	-1.5	-.5	-.9	-.8	-.9	-.4	.9	.8
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				74	81	75	75	73	78	72	79	72	70	72	76	69	76
Counter					163	163	163	163	163	163	163	163	163	163	163	163	163	163
52T6																		
SF6 Pressure	psig				70	76	72	72	70	76	69	72	68	70	68	72	68	70
Counter					146	146	146	146	146	146	146	146	146	146	146	146	146	146
52U																		
SF6 Pressure	psig				66	71	67	66	66	70	65	69	65	66	64	66	67	69
Counter					97	97	97	97	97	97	97	97	97	97	97	97	97	97
Shift Supervisor Review	INIT				E.S.B.	DW	E.S.B.	DW	E.S.B.	DW	DW	DW	DW	E.S.B.	DW	E.S.B.		E.S.B.

Hunlock Creek Energy Center

Operator Logs

Week Beginning: 5/28/12

	Units	Min	Norm	Max	5/28/12 Day	5/28/12 Night	5/29/12 Day	5/29/12 Night	5/30/12 Day	5/30/12 Night	5/31/12 Day	5/31/12 Night	6/1/12 Day	6/1/12 Night	6/2/12 Day	6/2/12 Night	6/3/12 Day	6/3/12 Night
Chiller Logs Unit 1*																		
Online or Offline	on/off				OFF	ON	ON	ON	ON	ON	OFF	ON	ON	ON	OK	ON	ON	ON
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				57.2	54.4	53.6	48.5	48.7	50.3	54.3	47.6	52.1	48.3	54.8	49.4	50.8	53.7
Outlet Temp	Deg F				55.7	47.0	47.3	42.9	43.1	44.9	53.4	46.0	51.0	44.9	53.4	47.5	50.8	54
Refrigerant Press					-6.2	-8.1	-8.1	-8.3	-8.7	-8.4	-6.5	-8.0	-7.0	-8.1	-6.6	-7.6	-7.0	-8.5
Condenser																		
Inlet Temp	Deg F				72.4	81.0	74.8	72.9	71.3	70.4	62.5	70.8	62.2	71.1	68.4	72.2	65.9	66.5
Outlet Temp	Deg F				72.4	88.7	80.8	78.1	76.5	77.4	67.7	73.6	67.3	74.2	68.1	74.4	65.8	66.4
Refrigerant Press					-6.2	1.1	.2	-8.6	-1.1	-0.8	-6.5	-8.3	-7.1	-8.3	-6.6	-7.9	-7.1	-6.6
Compressor																		
Starts					77	78	79	79	80	80	80	80	80	81	81	83	84	84
Runtime	Hours				462:12	471:09	476:12	486:12	486:35	492:09	502:26	502:26	502:26	507:14	507:14	510:39	511:15	512:15
Oil Tank Pressure	psig				-6.3	-7.4	-7.5	-8.7	-8.1	-7.9	-6.6	-8.5	-7.2	-8.4	-6.7	-8.0	-7.2	6.7
Oil Discharge Pressure	psig				-6.4	16.3	16.6	-8.8	15.5	15.7	-6.7	-8.5	-7.4	-8.4	-6.7	-8	-7.2	6.8
Oil Differential Pressure	psid				0	23.74	24.09	0	23.61	23.70	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				143	116.3	116.3	143.2	113.3	112.5	142.5	142.2	144.1	139	142.4	111.5	141	144.7
IGV 1 Position	%				0	19.5	34.7	0	21.4	09.2	0	0	0	0	0	0	0	0
IGV 2 Position	%				0	70.2	82.6	0	80.9	79.5	0	0	0	0	0	0	0	0
IGV 1 Steps					0	10143	17886	0	16148	14920	0	0	0	0	0	0	0	0
IGV Steps					0	38465	39228	0	38398	37284	0	0	0	0	0	0	0	0
Motor																		
% RLA L1, L2, L3	%				0	51.3	63.7	0	55.5	57.8	0	0	0	0	0	0	0	0
Amps L1, L2, L3	amps				0	132.0	167	0	146	146	0	0	0	0	0	0	0	0
Volts AB, BC, CA	Volts				2383	2336	2349	2365	2349	2361	2364	2362	2337	2363	2384	2361	2387	2378
Power kW	kW				0	546.3	581.9	0	502.1	534.4	0	0	0	0		0	0	0
pF					0	.885	.88	0	.86	0.86	-.01	0	0	0		0	0.1	0
Winding Temp #1	Deg F				72.7	101.9	108.2	84.5	101.7	99.6	74.5	72.5	65.6	76.7	73.9	79.4	77.4	66
Winding Temp #2	Deg F				73.7	100.0	105.4	88.3	98.7	97.1	75.8	73.2	66.5	78	74.4	83.0	72.6	66.6
Winding Temp #3	Deg F				73.0	102.1	109.8	84.5	102.6	99.2	74.7	72.8	67.9	77.4	74.8	78.5	71.8	66.5
Shift Supervisor Review					E.S.P.	RL	E.S.P.	DW	ESP	DW	OK	DW	OK	E.S.P.	OK	E.S.P.		E.S.P.

*= 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).

Hunlock Creek Energy Center

Operator Logs

Week Beginning: 5/28/12

	Units	Min	Norm	Max	5/28/12 Day	5/28/12 Night	5/29/12 Day	5/29/12 Night	5/30/12 Day	5/30/12 Night	5/31/12 Day	5/31/12 Night	6/1/12 Day	6/1/12 Night	6/2/12 Day	6/2/12 Night	6/3/12 Day	6/3/12 Night
Chiller Logs Unit 2*																		
Online or Offline	on/off				OFF	ON	ON	ON	ON	ON	OFF	ON	ON	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				57.2	54.9	53.6	48.5	48.7	50.3	54.3	49.6	52.1	48.2	54.8	49.7	50.8	53.7
Outlet Temp	Deg F				55.7	46.9	47.2	42.9	43.2	48.9	53.4	44.9	51.0	44.9	53.4	47.8	50.8	52.4
Refrigerant Press					-6.0	-8.1	-6.2	-8.8	-7.3	-7.1	-6.5	-8.4	-7.0	-8.4	-6.6	-8.0	-7.0	-6.5
Condenser																		
Inlet Temp	Deg F				72.4	81.0	74.8	72.9	71.3	72.4	67.5	70.8	67.2	71.1	68.4	72.2	65.9	66.5
Outlet Temp	Deg F				72.4	88.7	80.8	78.1	76.6	77.4	67.7	73.6	67.3	74.3	68.1	74.3	65.8	66.4
Refrigerant Press					-6.1	2.4	-6.8	-0.3	-7.6	-7.5	-6.7	-2.2	-7.4	-2.0	-6.6	-2.0	-7.1	-6.6
Compressor																		
Starts					81	82	82	83	83	84	84	85	85	86	86	87	87	87
Runtime	Hours				427:31	432:30	437:07	447:37	451:38	456.4	451:44	461:47	460:4	471:56	472:41	474:03	474:35	474:35
Oil Tank Pressure	psig				-6.2	-6.6	-7.0	-8.1	-7.8	-7.6	-6.8	-8.1	-7.1	-8.0	-6.6	-7.7	-7.3	-6.8
Oil Discharge Pressure	psig				-6.1	12.6	-6.7	10.8	-7.7	-3.5	-6.7	10.6	-7.0	10.9	-6.5	11.3	-7.2	-6.7
Oil Differential Pressure	psid				0	19.66	0	18.75	0	0	0	18.54	0	18.8	0	18.94	0	0
Oil Level			*		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Oil Tank Temp	Deg F				141.7	115.1	172.5	110.3	141.2	141.1	145.6	108.0	142.2	106	143.5	105.7	139.8	140.7
IGV 1 Position	%				0	19.7	0	34.3	0	0	0	14.6	0	16.5	0	16.8	0	0
IGV 2 Position	%				0	70.5	0	82.5	0	0	0	61.9	0	65.4	0	52.2	0	0
IGV 1 Steps					0	10456	0	18010	0	0	0	7749	0	8765	0	5874	0	0
IGV 2 Steps					0	32947	0	38487	0	0	0	28939	0	30578	0	24993	0	0
Motor																		
% RLA L1, L2, L3	%				0	49.7	0	54.4	0	0	0	36.9	0	40	0	34.7	0	0
Amps L1, L2, L3	amps				0	142.0	0	153.0	0	0	0	101.0	0	114	0	99	0	0
Volts AB, BC, CA	Volts				2385	2337	2357	2357	2358	2365	2370	2360	2353	2365	2384	2364	2387	2374
Power kW	kW				0	497.4	0	551.9	0	0	0	337.8	0	364	0	298	0	0
pF					0	0.85	0	0.85	0	0	0.1	.76	0	.78	0	.73	0.1	-.01
Winding Temp #1	Deg F				79.8	101.7	83.3	93.3	78.9	80.4	70.7	85.2	71.7	86.2	69.2	32.1	70.7	66.3
Winding Temp #2	Deg F				80.1	101.8	84.0	95.5	79.7	80.6	71.1	84.9	72.2	86.1	70.2	34.6	71.2	66.4
Winding Temp #3	Deg F				80.6	108.8	84.1	103.2	79.9	81.7	72.1	83.7	72.7	91.3	69.9	38.2	71.5	67.6
Shift Supervisor Review					E.S.P.		E.S.P.		E.S.P.				E.S.P.		E.S.P.			E.S.P.

*= 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).

Hunlock Creek Energ enter

Operator Logs

Backflush OA MMF @ 7:00 PM

Week Beginning: 5/28/12

		Units	Min	Norm	Max	5/28/12 Day	5/28/12 Night	5/29/12 Day	5/29/12 Night	5/30/12 Day	5/30/12 Night	5/31/12 Day	5/31/12 Night	6/1/12 Day	6/1/12 Night	6/2/12 Day	6/2/12 Night	6/3/12 Day	6/3/12 Night
RO Unit																			
Online or Offline		ON/OFF				ON	ON	ON	ON	ON	OFF	OFF	ON	ON	ON	ON	ON	ON	ON
Multi Media Filter	**Tag Number**																		
press diff between water inlet and outlet	PDIS 103	psid		3	5	4.5	5.1	5.1	5.4	5.2	5.6	5.5	6.1	5.7	5.7	6.3	6.6	2.5	2.6
inlet water flow meter	FIT 101	GPM		165		191	198.6	201.6	193.9	187.2	196.0	203.6	210.4	187.1	203.1	206.8	198.0	193.5	192.8
outlet water pressure	PI 102	psig		40		40	38	40	40	40	40	40	40	38	40	36	38	40	40
inlet water pressure	PI 101	psig		40		48	47	48	48	48	48	48	48	47	48	46	48	46	46
RO (south side)	**Tag Number**																		
2nd pass reject pressure	PI 218	psig		65		55	55	55	55	55	54	55	55	55	54	54	54	55	55
RO feed	PI 215	psig		90		70	70	70	70	70	69	70	70	70	70	65	68	70	70
3rd stage In	PI 210	psig		90		80	79	80	80	80	80	80	80	78	80	71	74	71	70
RO feed	PI207	psig		120		120	121	121	121	120	120	120	120	120	120	118	118	119	118
booster pump 1st pass pressure	PI 205	psig		288		285	286	284	284	284	284	285	285	283	284	283	280	285	286
booster pump 2nd pass pressure	PI 213	psig		280		290	291	290	292	292	292	290	290	290	295	293	290	290	291
Fil-Trek water pressure into filter	PI203	psig		35		40	38	40	40	40	40	40	40	38	38	36	36	37	40
Fil-Trek water pressure out of filter	PI 204	psig		35		38	34	38	38	38	38	38	38	34	38	33	36	35	36
Left of Panel (chemistry)	**Tag Number**																		
2nd pass permeate conductivity	AIT 203	us/cm				2.078	2.104	1.808	2.113	1.924	2.211	1.930	2.068	1.880	1.814	1.774	2.114	2.029	1.972
feed conductivity	AIT 202A	us/cm				136.3	138.6	148.2	136.5	136.9	145.1	144.2	149.8	143.5	139.9	155.9	135.7	136.0	135.0
1st pass permeate conductivity	AIT 202B	us/cm				3.167	3.214	2.755	3.072	3.015	3.497	3.090	3.392	3.126	2.910	3.034	3.065	3.408	3.011
Feed ORP	AIT 201	Mv	100	200	250+	202	187	196	196	198	180	205	178	183	203	177	191	204	205
Fil-Trek press diff between inlet and outlet	PDIS 201	psid				0	0	0	0	0	0	0	0	0	0	0	0	0	0
Panel	**Tag Number**																		
1st pass Recovery rate	%					74	73	74	72	73	73	74	74	73	74	73	73	72	71
1st pass reject flow	GPM					31.1	35.6	33.2	36.6	33.6	33.6	32.5	32.8	33.6	33.3	34.5	34.7	36.7	36.7
2nd pass reject Flow	FIT 204	GPM		14		9.7	9.9	9.7	9.6	9.9	9.2	9.7	10.0	9.7	9.6	9.7	9.8	9.1	9.0
2nd pass recovery rate	%					92	92	92	92	92	92	92	92	92	92	92	92	92	92
Demin Tank level	%		50	90	100	93	95	95	95	93	96	93	96	94	85	90	92	92	97
Permeate tank level	%		50	80	100	79	75	72	75	72	74	70	76	80	80	78	71	78	78
RO (north side)	**Tag Number**																		
1st pass reject flow	FIT 202	GPM		30		32.68	35.33	33.80	36.15	33.40	33.28	33.12	36.36	33.05	32.16	33.78	33.76	35.65	36.66
1st pass permeate flow	FIT 201	GPM		80		92.61	91.86	91.74	92.82	94.04	93.66	93.06	93.21	92.00	92.18	91.33	92.13	92.12	91.71
2nd pass permeate flow	FIT 203	psig		85		109.4	109.4	109.0	110.0	108.2	107.9	110.6	106.5	108.8	107.2	107.7	107.3	109.6	108.8
2nd stage In	PI 217	psig		80		62	62	62	62	62	61	60	60	62	60	61	60	61	62
2nd pass permeate flow pressure	PI 216	psig		10		12	12	12	12	12	11	12	12	12	11	12	11	12	12
1st pass reject flow pressure	PI 211	psig		70		60	60	61	61	60	60	60	60	59	54	50	52	50	50
1st pass permeate flow pressure	PI 208	psig		25		42	41	42	42	42	41	40	40	40	36	34	36	37	38
2nd stage In	PI 209	psig		100		100	97	106	100	100	100	98	98	98	95	90	94	91	91
Chemicals																			
Antiscalant (hypersperse MDC 700) level		US Gal	10		70	58	58	58	58	57	57	56	56	56	55	55	54	54	53
Antiscalant pump pressure		psig				40	40	40	40	38	38	40	40	40	40	40	40	43	36
Sodium Bisulfite (permacare PC-7408) level		US Gal	10		70	9	9	8	59	58	58	57	55	54	53	52	50	49	48
Sodium Bisulfite pump pressure		psig				44	40	40	40	38	38	40	40	40	40	40	40	46	40
Permeate Pumps to Demin Tank																			
Permeate Transfer pump		#1 or #2				2	None	None	None	None	None	None	2	2	2	#1	None	#1	#1
Transfer Press	PI 301	PSI				52	26	27	26	27	26	27	53	54	54	54	26	54	46
Demin Tank filter serial Number	# ~~15904~~	on/off		#15901		off	off	off	off	off	off	off	off	off	off	off	on	on	on
Demin Tank filter serial Number	# 15885	on/off				on	on	on	on	on	on	on	on	on	on	on	off	off	off
Shift Supervisor Review						ESP.	RJ	E.S.P.	DW	ESP	DW	DW	DW	DW	ESP.	DW	E.S.P.		ESP