Hunlock Creek Energy Center

Operator Logs

Week Beginning: 5/14/12

HRSG	Units	Min	Norm	Max	5/14/12 Day	5/14/12 Night	5/15/12 Day	5/15/12 Night	5/16/12 Day	5/16/12 Night	5/17/12 Day	5/17/12 Night	5/18/12 Day	5/18/12 Night	5/19/12 Day	5/19/12 Night	5/20/12 Day	5/20/12 Night
#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	—	—	—	—	—	—	—	—	—
#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	—	—	—	—	—	—	—	—	—
#6 Inlet House Filter D/P	in-Wg	0		3.5	—	—	—	OOS	OOS	—	—	—	—	—	—	—	—	—
#6 CTG Hydraulics Oil Level		1/3	FULL		—	—	—	OOS	OOS	—	—	—	—	—	—	—	—	—
#6 Turbine Lube Oil Level		1/3	3/4		—	—	—	OOS	OOS	—	—	—	—	—	—	—	—	—
#6 CTG Generator Oil Level		1/3	7/8		—	—	—	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	Full	Full	FULL	Full	FULL	Full	FULL	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	Log/ok	OK	Log/ok	OK	Log/ok	OK		OK	Log	OK	OK	OK	OK	OK
#6 CEM Shack			OK	UNSAT	—	—	—	OOS	—	—	—	—	—	—	—	—	—	—
Main Gas Inlet Press	psig	620	660	690	640	650	645	645	645	650	645	645	645	650	650	493	650	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				0	0	0	OOS	OOS	—	—	—	—	—	—	—	—	—
NH3 Cont Level	inches		1-3	5	1"	3"	3"	0*	1"	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"	4"	4"	4"	4"	4"	4"
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	0	1	1.0	2.0	2.0	2.0	2.0	2.0	2	2	0	2	0	2
CTG #5 SCAVENGING OIL FILTER D/P	psid		0-10	15	2.0	3	3.0	3.5	3.1	3.75	3.5	3.5	3	3	0	2	0	3
CTG #5 VG OIL FILTER D/P	psid		0-10	15	12.1	12	12.0	12.1	12.0	12.1	12.0	12.1	12.1	12.1	0	3	0	12.1
CTG #5 GENERATOR LUBE OIL FILTER D/P	psid		0-10	15	5.0	5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0	0	0	5.0
CTG #6 TURBINE LUBE OIL FILTER D/P	psid		0-10	15	—	—	—	OOS	OOS	—	—	—	—	—	—	—	—	—
CTG #6 SCAVENGING OIL FILTER D/P	psid		0-10	15	—	—	—	OOS	OOS	—	—	—	—	—	—	—	—	—
CTG #6 VG OIL FILTER D/P	psid		0-10	15	—	—	—	OOS	OOS	—	—	—	—	—	—	—	—	—
CTG #6 GENERATOR LUBE OIL FILTER D/P	psid		0-10	15	—	—	—	OOS	OOS	—	—	—	—	—	—	—	—	—
Shift Supervisor Review					RS	SH	RS	E.S.P.	RS	E.S.P.	[illegible]	E.S.P.	SH DW	SH DW	SH DW	SH DW	SH DW	SH DW

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

* Drained

Hunlock Creel nergy Center

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	Units	Min	Norm	Max	5/14/12 Day	5/14/12 Night	5/15/12 Day	5/15/12 Night	5/16/12 Day	5/16/12 Night	5/17/12 Day	5/17/12 Night	5/18/12 Day	5/18/12 Night	5/19/12 Day	5/19/12 Night	5/20/12 Day	5/20/12 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				69	70	63	62	65	75	62	66	60	73	62	72	62	88
#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				60	62	66	78	60	66	64	72	60	66	60	73	64	68
North Circ Pump Running	RUN/OFF				Run	Run	Run	RUN	Run	Run	Run	RUN	Run	Run	off	OFF	Run	Run
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	Yes	YES	Yes	YES	Yes	YES	YES	YES	NO	NO	YES	YES
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	Yes	YES	Yes	YES	Yes	YES	YES	YES	NO	NO	YES	YES
#4 SW Pump Run	RUN/OFF				off	Off	Run	RUN	Run	Run	Run	RUN	Run	RUN	off	OFF	Run	Run
#4 SW Pump Oil Level		1/3	1/2	7/8	idle	idle	Run	RUN	Run	RUN	Run	RUN	Run	RUN	idle	IDLE	Run	Run
#4 SW Pump Packing Leakage	yes/no				NO	NO	Yes	YES	Yes	YES	Yes	YES	YES	YES	NO	NO	YES	YES
#5 SW Pump Run	RUN/OFF				Run	Run	off	OFF	off	OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS
#5 SW Pump Oil Level		1/3	1/2	7/8	Run	Run	off	IDLE	IDLE	OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS
#5 SW Pump Packing Leakage	yes/no				Yes	Yes	NO	NO	NO	OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS
SW Press at SW Pump	psig	20			86	86	69#4	102	114#4	116	119#4	118	120	120	0	0	120	120
SW Press at SW Filters	psig	20			80	80	68	100	107	106	110	110	110	116	0	0	118	118
SW Press To CCW	psig				65	65	54	80	87	86	89	86	90	92	0	0	96	96
#1 CCW Pump Oil Level		1/3	1/2	7/8	1/2	1/2	1/2	1/2 RUN	1/2 RUN	1/2 RUN	1/2 RUN	1/2 RUN	1/2	1/2	1/2	1/2	1/2	1/2
#2 CCW Pump Oil Level		1/3	1/2	7/8	1/2	3/4	3/4	3/4 OFF	3/4	3/4 OFF	3/4 OFF	3/4 OFF	3/4	3/4	3/4	3/4	3/4	3/4
EHC Resevoir Level	inches		7"		7.0	7.5	7.5	7	7.0	7	7.0	7	6.5	7	7.5	9	6.5	7
EHC Temp	F	90	95-105	110	100	102	101	103	100	104	95	107	99	101	99	101	100	103
EHC Press	psig	1750	1800	1835	1748	1749	1749	1749	1752	1751	1798	1795	1795	1794	12.4	13.4	1783	1781
#1 EHC Pump Filter D/P	psid	0		80	50	47	47	47	47	46	0	0	0	0	0	0	0	0
#2 EHC Pump Filter D/P	psid	0		80	0	0	0	0	0	0	10	10	18	15	0	0	21	46
EHC Kidney Pump Filter D/P	psid	0		80	8.0	8	8.0	9.0	8.5	9	9.0	9	8	8	0	9	9	9
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	3A	3A	3A	3A	3A	3A	3A	3A	3A	3A	None	3B	3B
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					80	100	85	100	83	100	80	98	80	98	80	77	80	100
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				28.1	28	28.0	27.5	27.0	26.8	26.8	26.2	27	26	27	29.5	28	28
Backflush 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	OK Run	OK Run	OK Run	OK Run	OK Run	OK Run	OK	OK	OK	OK	OK	OK
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					RY	SH	RJ	E.S.P.	RJ	E.S.P.	TY	E.S.P.	JH	DW	JH	DW	SH	DW

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	Units	Min	Norm	Max	5/14/12 Day	5/14/12 Night	5/15/12 Day	5/15/12 Night	5/16/12 Day	5/16/12 Night	5/17/12 Day	5/17/12 Night	5/18/12 Day	5/18/12 Night	5/19/12 Day	5/19/12 Night	5/20/12 Day	5/20/12 Night
Chiller Building																		
3D Trasar #DT184 Tank Level	gal				30.0	29.5	30	29.5	30.0	29.5	29.5	29	29	28.7	28.7	28.5	28.5	28.5
3D Trasar #DT191 Tank Level	gal				56.5	56.5	56.5	56	56.5	56	56	55.5	55.5	55.5	55.5	55.2	55.2	55
Stabrex ST 70 Tank Level	gal				54.5	53.5	54.0	53	53.5	53	53	52.5	52	52	52	51.5	51.8	51.5
3D Trasar pH	pH		0-5	10	7.86	8.42	7.66	8.42	7.41	8.52	7.61	8.41	8.37	8.02	8.21	7.38	7.30	8.05
3D Trasar Conductivity	uMhos		0-5	10	1333	1415	1385	1336	1355	1452	1429	1503	1459	1752	1237	1782	1752	1553
#1 Raw Water Pump Oil Level		1/3	1/2	7/8	½	½	½	½ RUN	½	½ RUN	½ RUN	½ RUN	½	½ RUN	½	½	½	½
#2 Raw Water Pump Oil Level		1/3	1/2	7/8	½	½	½	½ OFF	½	½ OFF	½ OFF	½ OFF	½	½	½	½	½	½
Cooling Tower	OK/UNSAT		OK	UNSAT	OK	OK	OK	OK AUTO	OK	OK AUTO	OK/Auto	OK AUTO	OK	OK	OK	OK	OK	OK
Chill Water Pumps	OK/UNSAT		OK	UNSAT	OK/Auto	OK	OK/Auto	OK AUTO	OK/Auto	OK AUTO	OK/Auto	OK AUTO	OK	OK	OK	OK	OK	OK
Cooling Tower Pumps	OK/UNSAT		OK	UNSAT	OK/Auto	OK	OK/Auto	OK AUTO	OK/Auto	OK AUTO	OK/Auto	OK AUTO	OK	OK	OK	OK	OK	OK
BFP Building																		
#5 BFP Running	OFF/RUN				RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	OFF	OFF	ON	ON
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				OK	OFF	OK	OFF	OK	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	—	—	—	—	—	—	—	—	—	—
Oil Level		1/3	1/2	7/8	OOS	—	—	OOS	—	—	—	—	—	—	—	—	—	—
5711 Tank Level	gal				51.0	50	50	49.5	49.0	48.0	49.0	47.5	47.5	47.2	47	45.5	45	45
RO Building																		
#1 Demin Pump Oil Level		1/3	1/2	7/8	½ OFF	½	½ OFF	½ OFF	½ OFF	½ OFF	½ OFF	½ OFF	½	½	½	½	½	½
#2 Demin Pump Oil Level		1/3	1/2	7/8	½	½	½	½ RUN	½ RUN	½ RUN	½ RUN	½ RUN	½	½ RUN	½	½	½	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	1.4	1.4	1.4	1.4	1.4	1.4
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				#1	1	#1	1A 2S	#1	1A 2S	#1	1A 2S	1	1A 2S	1	1	1	1
Oil Level		1/3	1/2	7/8	7/8	7/8	7/8	1= 7/8	7/8	1= 7/8	7/8	1= 7/8	7/8	1= 7/8	7/8	7/8	7/8	1= 7/8
Off line Air Compressor Oil Level		1/3	1/2	7/8	7/8	7/8	7/8	2= 7/8	7/8	2= 7/8	7/8	2= 7/8	7/8	2= 7/8	7/8	7/8	7/8	2= 7/8
Aux Boiler																		
ELIMIN-OX Tank Level	gal				61.0	60	60	OOS	—	—	—	—	—	—	—	—	—	—
BT-3000 Tank Level	gal				73.5	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				ADD	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
#1 Turbine Bearing Temp	F				—	—	—	—	—	—	—	—	—	—	—	—	—	—
#2 Turbine Bearing Temp	F				119	124	125	122	123	122	123	126	106	122	105	95	92	125
#3 Turbine Bearing Temp	F				103	108	108	107	107	106	106	108	96	108	100	86	80	110
#4 Turbine Bearing Temp	F				135	144	144	146	140	146	141	144	98	148	98	95	86	145
#5 Turbine Bearing Temp	F				110	110	110	110	109	108	110	108	90	110	98	100	82	110
#6 Turbine Bearing Temp	F				106	106	106	107	105	106	105	106	85	108	95	95	77	108
Shift Supervisor Review					RV	[illegible]	RS	E.S.P.	[illegible]	E.S.P.	RV	E.S.P.	[illegible] DW	[illegible] DW	[illegible] DW	[illegible] DW	[illegible] DW	[illegible] DW

Hunlock Cre[illegible] [illegible]nergy Center

Operator Logs

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	Units	Min	Norm	Max	5/14/12		5/15/12		5/16/12		5/17/12		5/18/12		5/19/12		5/20/12	
					Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
T3																		
Winding Temperature	DEG C				20	22	21	32	23	38	20	34	16	38	26	27	18	39
Oil Temperature	DEG C				21	22	20	35	24	38	20	34	16	38	26	28	18	39
Transformer Press	psig				.4	.5	.4	1.0	.2	1.5	1.1	.8	-2.0	1.2	1.5	0	-2	1.5
Liquid Level					0	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Bushing Levels					0	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Containment Level					0	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
52T3																		
SF6 Press	psig				70	72	70	72	70	70	68	74	67	76	75	74	71	77
Counter					361	361	362	362	363	363	364	364	365	365	365	366	366	366
SST3																		
Winding Temperature	DEG C				35	32	35	36	35	40	30	48	25	41	32	40	32	43
Oil Temperature	DEG C				35	32	34	36	35	40	29	36	25	41	30	43	32	44
Transformer Press	psig				1.9	1.5	1.8	2.5	2.0	3.0	1.5	2.3	1.0	2.9	1.8	2.7	1.5	3.2
Liquid Level					0	0	0	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Bushing Levels					0	0	0	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Containment Level					1"	1"	2"	Drained	1"	1"	1"	1"	1"	1"	OK	OK	1"	1"
T5																		
Winding Temperature	DEG C				60	64	60	78	58	78	58	62	45	80	60	80	38	80
Oil Temperature	DEG C				55	57	56	70	54	72	53	55	41	75	57	78	37	79
Pressure	psig				3.2	4.5	3.1	5.9	3.1	5.8	3.7	4.0	1.0	6.5	2.0	1.9	.5	7.5
Liquid Level					0	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Containment Level					1"	OK	3"	5 gal	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Bushing Levels					0	OK	OK	Drained	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
T6																		
Winding Temperature	DEG C				16	14	18	22	18	24	14	16	12	26	18	60	17	30
Oil Temperature	DEG C				18	14	14	24	19	25	15	16	12	28	18	91	17	32
Pressure	psig				-.9	-.5	-.6	-.3	-.6	-.2	1.0	.9	-1	0	0	-.2	-.1	-.1
Liquid Level					0	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Containment Level					0	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Bushing Levels					0	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
52T5																		
SF6 Pressure	psig				70	70	163	72	71	72	69	72	68	78	76	75	72	79
Counter					163	163	70	163	163	163	163	163	163	163	163	163	163	163
52T6																		
SF6 Pressure	psig				68	70	68	72	69	72	66	70	66	74	76	73	69	76
Counter					146	146	146	146	146	146	146	146	146	146	146	146	146	146
52U																		
SF6 Pressure	psig				64	65	65	65	65	65	64	65	62	70	70	67	65	71
Counter					97	97	97	97	97	97	97	97	97	97	97	97	97	97
Shift Supervisor Review	INIT				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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RO Unit																			
Online or Offline		ON/OFF				ON	ON	ON	OFF	ON	ON	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF
Multi Media Filter	**Tag Number**																		
press diff between water inlet and outlet	PDIS 103	psid		3	5	5.9	6.1	5.9		2.5	2.4	2.5			2.9				
inlet water flow meter	FIT 101	GPM		165		197.4	190.7	193.3		196.0	194.3	193.2			200.4				
outlet water pressure	PI 102	psig		40		39	40	39		41	44	42			42				
inlet water pressure	PI 101	psig		40		47	48	46		46	48	48			48				
RO (south side)	**Tag Number**																		
2nd pass reject pressure	PI 218	psig		65		59	60	59		60	58	59			59				
RO feed	PI 215	psig		90		76	82	75		76	76	77			77				
3rd stage In	PI 210	psig		90		85	85	85		85	86	85			85				
RO feed	PI207	psig		120		122	120	121		121	122	123			124				
booster pump 1st pass pressure	PI 205	psig		288		285	285	285		289	286	288			289				
booster pump 2nd pass pressure	PI 213	psig		280		290	290	290		290	295	295			295				
Fil-Trek water pressure into filter	PI203	psig		35		38	38	38		40	40	40			40				
Fil-Trek water pressure out of filter	PI 204	psig		35		36	36	36		36	40	36			36				
Left of Panel (chemistry)	**Tag Number**																		
2nd pass permeate conductivity	AIT 203	us/cm				1.828	1.743	1.748		2033	1.853	1.609			1.685				
feed conductivity	AIT 202A	us/cm				128.5	125.8	143.6		134.5	127.4	135.8			131.8				
1st pass permeate conductivity	AIT 202B	us/cm				2.485	2.146	2.494		3.144	2.344	>120			2.278				
Feed ORP	AIT 201	Mv	100	200	250+	195	190	187		192	189	180			180				
Fil-Trek press diff between inlet and outlet	PDIS 201	psid				0	0	0		0	0	0			0				
Panel	**Tag Number**																		
1st pass Recovery rate	%					72	74	72		73	73	72			72				
1st pass reject flow	GPM					34.3	31	35.9		29.9	33.9	35.9			35.8				
2nd pass reject Flow	FIT 204	GPM		14		9.1	10.8	10.7		9.9	10.8	10.6			10.0				
2nd pass recovery rate	%					91	91	91		92	91	91			92				
Demin Tank level	%		50	90	100	93	96	93	97	80	83	97	97	95	95	96	96	96	97
Permeate tank level	%		50	80	100	72	77	71	82	77	75	75	82	70	79	87	65	57	82
RO (north side)	**Tag Number**																		
1st pass reject flow	FIT 202	GPM		30		31.66	33.30	32.81		33.92	35.18	34.55			34.58				
1st pass permeate flow	FIT 201	GPM		80		92.79	88.22	91.68		93.78	92.02	92.35			90.22				
2nd pass permeate flow	FIT 203	psig		85		104.2	103.8	105.4		107.2	106.4	106.0			108.4				
2nd stage In	PI 217	psig		80		67	65	67		67	66	68			68				
2nd pass permeate flow pressure	PI 216	psig		10		12	12	12		12	11	12			12				
1st pass reject flow pressure	PI 211	psig		70		64	65	63		64	65	64			64				
1st pass permeate flow pressure	PI 208	psig		25		39	38	38		40	42	40			40				
2nd stage In	PI 209	psig		100		100	100	100		100	102	100			100				
Chemicals																			
Antiscalant (permatreat PC-191T) level		US Gal	10		70	65	64	64	64	63	63	63	63	62	62	62	62	62	62
Antiscalant pump pressure		psig				40	40	40	40	44	40	44	40		42				
Sodium Bisulfite (permacare PC-7408) level		US Gal	10		70	35	35	35	34	33	33	32	31	30	29	29	29	29	28
Sodium Bisulfite pump pressure		psig				40	40	40	40	44	40	44	40		42				
Permeate Pumps to Demin Tank																			
Permeate Transfer pump		#1 or #2				None	2	None	None	#2	#1	#1	None	None	2	None	None	None	None
Transfer Press	PI 301	PSI				27	56	27	26	56	56	56	26	26	56	26	26	26	26
Demin Tank filter serial Number	# ~~17788~~	on/off	#15885			off	off	off	OFF	off	OFF	off	OFF	OFF	ON	ON	ON	OFF	OFF
Demin Tank filter serial Number	# 15904	on/off				ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	ON	ON
Shift Supervisor Review						[illegible]	[illegible]	BS	E.S.P.	[illegible]	E.S.P.	[illegible]	E.S.P.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Hunlock Creek Energy Center

Operator Logs

Week Beginning: 5/14/12

	Units	Min	Norm	Max	5/14/12 Day	5/14/12 Night	5/15/12 Day	5/15/12 Night	5/16/12 Day	5/16/12 Night	5/17/12 Day	5/17/12 Night	5/18/12 Day	5/18/12 Night	5/19/12 Day	5/19/12 Night	5/20/12 Day	5/20/12 Night
Chiller Logs Unit 1*																		
Online or Offline	on/off				ON	ON	ON	ON	ON	ON	ON	ON	OFF	ON	OFF	OFF	OFF	ON
Valves Lined Up or By-passed	in/out				IN		IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Evaporator																		
Inlet Temp	Deg F				55.6	49.5	53.7	50.8	54.3	49.3	50.0	47	47.3	49.7				51.0
Outlet Temp	Deg F				55.9	46.9	52.8	46.9	53.7	46.9	50.0	45.2	47.3	46.9				46.9
Refrigerant Press					-6.1	-7.8	-6.7	-8.1	-6.5	-7.7	-7.3	-7.9	-7.7	-8.1				-8.1
Condenser																		
Inlet Temp	Deg F				67.2	71	69.6	71.9	69.8	70.9	64.9	70.3	65	70.8				70.8
Outlet Temp	Deg F				67.3	74	69.7	76.5	65.9	73.9	64.9	72.3	64	73.4				74.3
Refrigerant Press					-6.2	-8.0	-6.8	-1.3	-6.5	-8.0	-7.3	-8.3	-7.8	-2.2				-1.9
Compressor																		
Starts					67	68	68	69	69	69	69	70	70	71				72
Runtime	Hours				372.33	375.52	378.32	382.12	385.3	385.3	385.3	392.33	392.33	399.06				402.35
Oil Tank Pressure	psig				-6.3	-8.1	-6.9	-7.7	-6.6	-8.1	-7.4	-8.4	-7.9	-7.8				-7.8
Oil Discharge Pressure	psig				-6.4	-8.2	-6.9	15.8	-6.7	-8.2	-7.5	-8.4	-7.9	15.9				15.7
Oil Differential Pressure	psid				0	0	0	23.51	0	0	0	0	0	23.82				23.60
Oil Level			*		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Oil Tank Temp	Deg F				139.1	139	142	112.1	140.8	140.9	139.3	119.8	143.4	111.5				112.2
IGV 1 Position	%				0	0	0	24.2	0	0	0	0	0	12.3				17.4
IGV 2 Position	%				0	0	0	75.6	0	0	0	0	0	56.8				67.1
IGV 1 Steps					0	0	0	17590	0	0	0	0	0	6563				9077
IGV Steps					0	0	0	35590	0	0	0	0	0	26872				31922
Motor																		
% RLA L1, L2, L3	%				0	0	0	53.1	0	0	0	0	0	31.7				44.1
Amps L1, L2, L3	amps				0	0	0	137	0	0	0	0	0	96				117.0
Volts AB, BC, CA	Volts				2382	2375	2369	2367	2368	2373	2378	2366	2380	2361				2359
Power kW	kW				0	0	0	471	0	0	0	0	0	304.9				388.1
pF					0	-.01	0	.85	0	0	0	0	0	.85				.082
Winding Temp #1	Deg F				66.3	79.3	71.7	95.9	75.6	74.7	64.8	79.1	71.4	86.6				89.9
Winding Temp #2	Deg F				67.0	80.9	72.6	93.6	72.7	74.8	66.0	82.6	72.6	85.3				88.3
Winding Temp #3	Deg F				66.8	79.9	72.2	96.2	76.1	74.6	65.6	78.4	72	86.3				89.9
Shift Supervisor Review					RC		RJ	ESP	RJ	ESP	RC	ESP						

* = 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: 5/14/12

	Units	Min	Norm	Max	5/14/12 Day	5/14/12 Night	5/15/12 Day	5/15/12 Night	5/16/12 Day	5/16/12 Night	5/17/12 Day	5/17/12 Night	5/18/12 Day	5/18/12 Night	5/19/12 Day	5/19/12 Night	5/20/12 Day	5/20/12 Night
Chiller Logs Unit 2*																		
Online or Offline	on/off				ON	ON	ON	ON	ON	ON	ON	ON	OFF	ON	OFF	OFF	OFF	ON
Valves Lined Up or By-passed	in/out				IN		IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN
Evaporator																		
Inlet Temp	Deg F				55.6	49.5	53.7	50.8	54.3	49.4	50.0	46.7	47.3	49.7				50
Outlet Temp	Deg F				55.9	46.8	52.8	46.9	53.1	47.0	50.0	44.9	47.3	46.9				46.9
Refrigerant Press					-6.1	-8.1	-6.7	-7.1	-6.5	-8.1	-7.3	-8.4	-7.7	-7.2				-7.0
Condenser																		
Inlet Temp	Deg F				67.2	71	68.7	71.9	65.8	71.2	64.9	70.7	68	70.8				70.8
Outlet Temp	Deg F				67.3	74	68	76.5	69.9	74.2	64.9	72.7	68	73.1				74.3
Refrigerant Press					-6.1	-2.1	-6.8	-7.4	-6.5	6.1	-7.3	-2.5	-7.9	-7.5				-7.4
Compressor																		
Starts					70	71	71	71	71	72	72	73	73	73				73
Runtime	Hours				343.12	347:34	350:15	350:15	350:45	359:48	362:51	363:23	363:27	363:27				364:53
Oil Tank Pressure	psig				-6.4	-7.8	-6.8	-7.5	-6.8	-7.8	-7.5	-8.1	-8.0	-7.7				-7.5
Oil Discharge Pressure	psig				-6.3	14.6	-6.7	-7.4	-6.7	14.4	-7.4	14.3	-7.9	-7.6				-7.4
Oil Differential Pressure	psid				0	22.29	0	0	0	22.06	0	22.28	0	0				0
Oil Level			*		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	141.4
Oil Tank Temp	Deg F				139.1	108	139	145.5	135.6	108	146.3	108	139.1	143.0				0
IGV 1 Position	%				0	15.1	0	0	0	14.2	0	10.2	0	0				0
IGV 2 Position	%				0	62.7	0	0	0	61.5	0	56.2	0	0				0
IGV 1 Steps					0	7995	0	0	0	7707	0	5411	0	0				0
IGV 2 Steps					0	29417	0	0	0	28726	0	23483	0	0				0
Motor																		
% RLA L1, L2, L3	%				0	37.6	0	0	0	37.6	0	33.5	0	0				0
Amps L1, L2, L3	amps				0	110	0	0	0	107	0	95	0	0				0
Volts AB, BC, CA	Volts				2384	2371	2373	2371	2372	2366	2373	2360	2380	2373				2364
Power kW	kW				0	345.6	0	0	0	337	0	277	0	0				0
pF					0	.79	8.2	.01	0	.77	0	.70	0	0				0
Winding Temp #1	Deg F				66.6	85.5	75.2	72.4	69.9	85.2	69.0	82.8	72.7	72.3				74.8
Winding Temp #2	Deg F				66.7	85.3	75.6	72.4	70.1	85.2	69.6	82.7	72.9	72.3				74.8
Winding Temp #3	Deg F				68.1	90.3	76.4	73.8	77.3	90.0	70.0	86.2	72.9	73.8				74.1
Shift Supervisor Review					PB	[illegible]	PB	E.S.P.	PB	E.S.P.	[illegible]	E.S.P.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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