Daily Inspections

# Hunlock Cre Energy Center

## Operator Logs

Week Beginning: 6/4/12

| Steam Turbine Building | Units | Min | Norm | Max | 6/4/12 Day | 6/4/12 Night | 6/5/12 Day | 6/5/12 Night | 6/6/12 Day | 6/6/12 Night | 6/7/12 Day | 6/7/12 Night | 6/8/12 Day | 6/8/12 Night | 6/9/12 Day | 6/9/12 Night | 6/10/12 Day | 6/10/12 Night |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #1 CARP Tank Level | | 1/4 | 1/2 | | 3/4 | 3/4 | 3/4 | 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 | | | | 68 | 68 | 63 | 76 | 64 | 74 | 66 | 75 | 64 | 68 | 72 | 69 | 72 | 71 |
| #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 | | | | 70 | 70 | 66 | 66 | 66 | 65 | 68 | 66 | 66 | 74 | 72 | 74 | 74 | 79 |
| 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 | | | | OFF | OFF | OFF | off | RUN | Run | RUN | Run | RUN | Run | RUN | Run | RUN | Run |
| 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 | NO | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES |
| #4 SW Pump Run | RUN/OFF | | | | OFF | OFF | OFF | off | RUN | Run | RUN | Run | RUN | Run | RUN | Run | OFF | ON |
| #4 SW Pump Oil Level | | 1/3 | 1/2 | 7/8 | IDle | IDle | 1/3 | 1/3 | RUN | Run | RUN | Run | RUN | Run | RUN | Run | IDLE | Run |
| #4 SW Pump Packing Leakage | yes/no | | | | NO | NO | NO | NO | YES | Yes | YES | Yes | YES | YES | YES | YES | NO | Yes |
| #5 SW Pump Run | RUN/OFF | | | | RUN | RUN | OFF | off | RUN | Run | RUN | Run | RUN | Run | RUN | Run | RUN | Run |
| #5 SW Pump Oil Level | | 1/3 | 1/2 | 7/8 | RUN | RUN | IDle | IDle | RUN | Run | RUN | Run | RUN | Run | RUN | Run | RUN | Run |
| #5 SW Pump Packing Leakage | yes/no | | | | YES | YES | NO | NO | YES | Yes | YES | Yes | YES | YES | YES | YES | YES | YES |
| SW Press at SW Pump | psig | 20 | | | 104 | 104 | 0 | 0 | 130 | 129 | 128 | 129 | 130 | 130 | 130 | 130 | 105 | 130 |
| SW Press at SW Filters | psig | 20 | | | 95 | 95 | 0 | 0 | 125 | 120 | 121 | 120 | 120 | 120 | 122 | 120 | 96 | 121 |
| SW Press To CCW | psig | | | | 88 | 88 | 0 | 0 | 102 | 100 | 100 | 100 | 100 | 100 | 102 | 99 | 78 | 96 |
| #1 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 | 1/2 OFF | 1/2 | 1/2 OFF | 1/2 | 1/2 OFF | 1/2 |
| #2 CCW Pump Oil Level | | 1/3 | 1/2 | 7/8 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 RUN | 3/4 | 3/4 RUN | 3/4 | 3/4 RUN | 3/4 |
| EHC Resevoir Level | inches | | 7" | | 8.5 | 8.5 | 8.5 | 8.0 | 6.5 | 6.5 | 6 | 6.5 | 6.5 | 6.5 | 6 | 6 | 7.5 | 6 |
| EHC Temp | F | 90 | 95-105 | 110 | 95 | 96 | 96 | 101 | 100 | 100 | 96 | 101 | 98 | 102 | 99 | 95 | 95 | 98 |
| EHC Press | psig | 1750 | 1800 | 1835 | 11.73 | 11.71 | 11.41 | 12.082 | 1773 | 1785 | 1782 | 1785.6 | 1780 | 1780 | 1784 | 1785 | 11.94 | 1785 |
| #1 EHC Pump Filter D/P | psid | 0 | | 80 | 0 | 0 | 0 | 0 | 30 | 25 | 0 | 0 | 0 | 0 | 18 | 10 | 0 | 10 |
| #2 EHC Pump Filter D/P | psid | 0 | | 80 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 27 | 32 | 30 | 0 | 0 | 0 | 0 |
| EHC Kidney Pump Filter D/P | psid | 0 | | 80 | 10 | 10 | 10 | 10 | 9 | 8 | 8 | 8.0 | 9.0 | 9 | 10 | 9 | 10 | 10 |
| 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 | | | | 3A | 3A | OFF | off | 3B | 3B | 3B | 3B | 3B | 3B | 3B | 3B | NONE | 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 | | | | | 70 | 70 | 60 | 65 | 60 | 95 | 70 | 103 | 80 | 105 | 80 | 105 | 85 | 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 | 28 | 28 | 28.0 | 28 | 28 | 28 | 28.0 | 28 | 27 | 28 | 28 | 29 | 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 RUN | OK RUN | OK/R | OK RUN | OK/R | OK | OK/RUN | OK RUN | OK | OK RUN | OK | OK RUN | OK |
| * BACKUP GENEREATOR RUN HOURS | | | | | | | | 13.36 | 13.36 | 13.36 | 13.36 | 13.36 | 13.36 | 13.36 | 13.36 | 13.36 | 13.36 | 13.36 |
| 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 | | | | | DW | | DW | BK | DW | BK | DW | BK | BK | | | | | |

# Hunlock Creek Energy Center

## Operator Logs

Week Beginning: 6/4/12

| | Units | Min | Norm | Max | 6/4/12 Day | 6/4/12 Night | 6/5/12 Day | 6/5/12 Night | 6/6/12 Day | 6/6/12 Night | 6/7/12 Day | 6/7/12 Night | 6/8/12 Day | 6/8/12 Night | 6/9/12 Day | 6/9/12 Night | 6/10/12 Day | 6/10/12 Night |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **HRSG** | | | | | | | | | | | | | | | | | | |
| #5 HRSG Walkdown | OK/UNSAT | | OK | UNSAT | OK | | OK | OK | OK | OK | OK | OK | OK | OK | OK | OK | OK | OK |
| #6 HRSG Walkdown | OK/UNSAT | | OK | UNSAT | OK | | OK | OK | OK | OK | OK | OK | OK | OK | OK | OK | OK | OK |
| #5 Inlet House Prefilter D/P | in-Wg | 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 |
| #6 Inlet House Prefilter D/P | in-Wg | 0 | | | 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 | 0 |
| #6 CTG Hydraulics Oil Level | | 1/3 | FULL | | 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 | 7/8 | 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 | Full | Full |
| #5 CTG Hydraulics Oil Level | | 1/3 | FULL | | Full | Full | 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 Turbine Lube Oil Level | | 1/3 | 3/4 | | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 7/8 | 7/8 | 7/8 | 7/8 | 7/8 | 7/8 |
| #5 CTG Generator Oil Level | | 1/3 | 7/8 | | Full | Full | Full | Full | 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 LOG | OK | OK LOG | OK | OK LOG | OK | OK LOG | OK | OK LOG | OK | OK LOG | OK |
| #6 CEM Shack | | | OK | UNSAT | OK LOG | | OK LOG | OK | OK LOG | OK | OK LOG | OK | OK LOG | OK | OK LOG | OK | OK LOG | OK |
| Main Gas Inlet Press | psig | 620 | 660 | 690 | 650 | 650 | 690 | 695 | 650 | 650 | 645 | 650 | 645 | 650 | 650 | 645 | 650 | 650 |
| #5 Gas Coalescer D/P | psid | | 0-5 | 10 | 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 | 0 | 0 |
| NH3 Cont Level | inches | | 1-3 | 5 | 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 |
| CTG #5 DRAIN TANK VALT | EMPTY/UNSAT | | EMPTY | PUMP | 3" | 3" | 3" | 3" | 3" | 3" | 3" | 3" | 12" pumped | 10" | 2" | 2" | 2" | 2" |
| CTG #6 DRAIN TANK VALT | EMPTY/UNSAT | | EMPTY | PUMP | 3" | 3" | 3" | 3" | 3" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" |
| CTG #5 TURBINE LUBE OIL FILTER D/P | psid | | 0-10 | 15 | 0 | 0 | 0 | 0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0 | 0 | 0 | 0 |
| CTG #5 SCAVENGING OIL FILTER D/P | psid | | 0-10 | 15 | 0 | 0 | 0 | 0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.5 | 3.0 | 0 | 0 | 0 | 0 |
| CTG #5 VG OIL FILTER D/P | psid | | 0-10 | 15 | 0 | 0 | 0 | 0 | 12.1 | 12.1 | 12.1 | 12.1 | 12.2 | 12.1 | 0 | 0 | 0 | 0 |
| CTG #5 GENERATOR LUBE OIL FILTER D/P | psid | | 0-10 | 15 | 0 | 0 | 0 | 0 | 6.0 | 6.0 | 6.0 | 6.0 | 5.0 | 5.0 | 0 | 0 | 0 | 0 |
| CTG #6 TURBINE LUBE OIL FILTER D/P | psid | | 0-10 | 15 | 3.0 | 3.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 |
| CTG #6 SCAVENGING OIL FILTER D/P | psid | | 0-10 | 15 | 4.0 | 4.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 4 |
| CTG #6 VG OIL FILTER D/P | psid | | 0-10 | 15 | 9.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12.1 | 0 | 12.1 |
| TG #6 GENERATOR LUBE OIL FILTER D/P | psid | | 0-10 | 15 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8.0 | 3 | 0 | 3 |
| Shift Supervisor Review | | | | | DW | | DW | RJ | DW | RJ | DW | RJ | C.S.P. | | C.S.P. | | | |

'ank valt has water it needs to be pumped down and documented and make sure it is pumped to an oil water seperator
e running pump

# Hunlock Cre[illegible] Energy Center

## Operator Logs

Week Beginning: 6/4/12

| | Units | Min | Norm | Max | 6/4/12 Day | 6/4/12 Night | 6/5/12 Day | 6/5/12 Night | 6/6/12 Day | 6/6/12 Night | 6/7/12 Day | 6/7/12 Night | 6/8/12 Day | 6/8/12 Night | 6/9/12 Day | 6/9/12 Night | 6/10/12 Day | 6/10/12 Night |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Chiller Building** | | | | | | | | | | | | | | | | | | |
| 3D Trasar #DT184 Tank Level | gal | | | | 26 | 26 | 26 | 26.5 | 26.0 | 26.5 | 26.0 | 26.5 | 26 | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 |
| 3D Trasar #DT191 Tank Level | gal | | | | 52.5 | 52.5 | 52.5 | 53.5 | 52.5 | 53.5 | 52 | 53.0 | 52 | 52 | 51.5 | 51.5 | 51.5 | 51 |
| Stabrex ST 70 Tank Level | gal | | | | 41.5 | 41.5 | 41.5 | 42.5 | 41.5 | 42.0 | 41 | 42.5 | 41 | 40.5 | 40 | 39.5 | 39.5 | 39.3 |
| 3D Trasar pH | pH | | 0-5 | 10 | 7.58 | 7.54 | 8.60 | 6.35 | 6.05 | 8.45 | 8.32 | 8.50 | 8.54 | 8.35 | 8.40 | 8.40 | 8.33 | 8.37 |
| 3D Trasar Conductivity | uMhos | | 0-5 | 10 | 2621 | 2654 | 2539 | 2922 | 2914 | 2676 | 1863 | 1903 | 1854 | 1735 | 1719 | 1716 | 1727 | 1734 |
| #1 Raw Water Pump Oil Level | | 1/3 | 1/2 | 7/8 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 Run | 1/2 | 1/2 Run | 1/2 Run | 1/2 | 1/2 Run | 1/2 | 1/2 Run | 1/2 |
| #2 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 OFF | 1/2 | 1/2 OFF | 1/2 | 1/2 OFF | 1/2 |
| Cooling Tower | OK/UNSAT | | OK | UNSAT | OK | OK | OK | OK/Auto | OK Auto | OK/Auto | OK | OK/Auto | OK AUTO | OK | OK AUTO | OK | OK AUTO | OK |
| Chill Water Pumps | OK/UNSAT | | OK | UNSAT | OK | OK | OK | OK/Auto | OK Auto | OK/Auto | OK | OK/Auto | OK AUTO | OK | OK AUTO | OK | OK AUTO | OK |
| Cooling Tower Pumps | OK/UNSAT | | OK | UNSAT | OK | OK | OK | OK/Auto | OK Auto | OK/Auto | OK | OK/Auto | OK AUTO | OK | OK AUTO | OK | OK AUTO | OK |
| **BFP Building** | | | | | | | | | | | | | | | | | | |
| #5 BFP Running | OFF/RUN | | | | OFF | OFF | OFF | OFF | ON | ON | ON | ON | RUN | RUN | 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 |
| STBY BFP Running | OFF/RUN | | | | RUN | RUN | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
| Oil Level | | 1/3 | 1/2 | 7/8 | 1/2 | 1/2 | 1/4 | 1/4 | 1/4 | 1/4 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| #6 BFP Running | OFF/RUN | | | | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | ON | OFF | ON |
| Oil Level | | 1/3 | 1/2 | 7/8 | 1/2 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 5711 Tank Level | gal | | | | 29 | 25.5 | 21.0 | 22.5 | 21.0 | 22.5 | 21.0 | 22.5 | 20.0 | 20 | 19.5 | 19.5 | 19 | 19 |
| **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 OFF | 1/2 | 1/2 OFF | 1/2 | 1/2 OFF | 1/2 |
| #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 RUN | 1/2 | 1/2 RUN | 1/2 | 1/2 RUN | 1/2 |
| 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 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Air Dryer Filter D/P | psid | | 0-5 | 10 | .4 | .4 | .4 | .5 | .5 | .5 | .5 | .5 | .4 | .4 | .4 | .4 | .6 | .5 |
| Air Compressor Running | 1 OR 2 | | | | 1 | 1 | 1 | #2 | 1 | #1 | 2 | #2 | 2A 1S | 2 | 2A 1S | 2 | 1A 2S | 1 |
| Oil Level | | 1/3 | 1/2 | 7/8 | 1=7/8 | 1=7/8 | 1=7/8 | 1=7/8 | 1=7/8 | 1=7/8 | 2=7/8 | 2=7/8 | 2=7/8 | 7/8 | 2=7/8 | 7/8 | 1=7/8 | 7/8 |
| Off line Air Compressor Oil Level | | 1/3 | 1/2 | 7/8 | 2=7/8 | 2=7/8 | 2=7/8 | 2=7/8 | 2=7/8 | 2=7/8 | 1=7/8 | 1=7/8 | 1=7/8 | 7/8 | 1=7/8 | 7/8 | 2=7/8 | 7/8 |
| **Aux Boiler** | | | | | | | | | | | | | | | | | | |
| BT-3000 Tank Level | gal | | | | 71.5 | 71.5 | 71.5 | 72.0 | 71.5 | 71.5 | 71.5 | 71.5 | 71.5 | 72 | 71.5 | 71.5 | 71.5 | 71.5 |
| **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 | ADD | OK | OK | OK |
| #1 Turbine Bearing Temp | F | | | | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| #2 Turbine Bearing Temp | F | | | | 92 | 90 | 86 | 86 | 122 | 134 | 122 | 126 | 118 | 123 | 98 | 124 | 116 | 122 |
| #3 Turbine Bearing Temp | F | | | | 78 | 76 | 72 | 70 | 110 | 107 | 103 | 108 | 100 | 110 | 88 | 110 | 94 | 110 |
| #4 Turbine Bearing Temp | F | | | | 92 | 90 | 87 | 89 | 140 | 140 | 130 | 145 | 120 | 142 | 98 | 142 | 99 | 142 |
| #5 Turbine Bearing Temp | F | | | | 92 | 92 | 92 | 90 | 110 | 110 | 110 | 110 | 110 | 110 | 92 | 110 | 94 | 110 |
| #6 Turbine Bearing Temp | F | | | | 90 | 90 | 88 | 86 | 110 | 106 | 106 | 106 | 105 | 108 | 90 | 108 | 92 | 108 |
| Shift Supervisor Review | | | | | [illegible] | | [illegible] | RX | [illegible] | [illegible] | [illegible] | OK | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |

# Hunlock Cree[illegible] [illegible]nergy Center

## Operator Logs

Week Beginning: 6/4/12

| | Units | Min | Norm | Max | 6/4/12 Day | 6/4/12 Night | 6/5/12 Day | 6/5/12 Night | 6/6/12 Day | 6/6/12 Night | 6/7/12 Day | 6/7/12 Night | 6/8/12 Day | 6/8/12 Night | 6/9/12 Day | 6/9/12 Night | 6/10/12 Day | 6/10/12 Night |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **T3** | | | | | | | | | | | | | | | | | | |
| Winding Temperature | DEG C | | | | 25 | 24 | 11 | 20 | 13 | 33 | 29 | 33 | 22 | 37 | 28 | 30 | 24 | 32 |
| Oil Temperature | DEG C | | | | 26 | 25 | 12 | 20 | 13 | 34 | 30 | 34 | 22 | 37 | 26 | 30 | 26 | 33 |
| Transformer Press | psig | | | | -1.6 | -1.3 | -1.9 | -1.5 | -1.9 | -.5 | -1.2 | .5 | -1.1 | 1.5 | -.9 | 0 | -.7 | -.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 | | | | 70 | 70 | 68 | 70 | 69 | 72 | 70 | 71 | 70 | 75 | 72 | 74 | 72 | 75 |
| Counter | | | | | 375 | 375 | 375 | 375 | 375 | 375 | 376 | 376 | 377 | 377 | 377 | 378 | 379 | 379 |
| **SST3** | | | | | | | | | | | | | | | | | | |
| Winding Temperature | DEG C | | | | 32 | 30 | 31 | 35 | 32 | 41 | 32 | 38 | 32 | 42 | 33 | 35 | 38 | 42 |
| Oil Temperature | DEG C | | | | 32 | 30 | 31 | 32 | 32 | 38 | 32 | 35 | 32 | 40 | 36 | 36 | 38 | 42 |
| Transformer Press | psig | | | | 1.9 | 1.5 | 1.4 | 2.0 | 1.5 | 2.6 | 2.8 | 2.5 | 1.7 | 3.0 | 2.0 | 2.5 | 2.1 | 2.5 |
| 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 | | | | | 0" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | >1" | OK |
| **T5** | | | | | | | | | | | | | | | | | | |
| Winding Temperature | DEG C | | | | 35 | 37 | 35 | 40 | 49 | 79 | 55 | 75 | 56 | 79 | 58 | 60 | 40 | 52 |
| Oil Temperature | DEG C | | | | 35 | 37 | 35 | 40 | 44 | 72 | 57 | 74 | 52 | 76 | 54 | 56 | 40 | 48 |
| Pressure | psig | | | | .5 | .9 | .5 | 1.3 | 2.0 | 6.5 | 2.9 | 6.9 | 2.6 | 6.8 | 3.1 | 2.5 | 1.1 | 1.5 |
| 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 | 1" | DRAINED | OK | OK | OK | OK | OK |
| **T6** | | | | | | | | | | | | | | | | | | |
| Winding Temperature | DEG C | | | | 36 | 40 | 36 | 40 | 35 | 43 | 37 | 41 | 38 | 45 | 39 | 72 | 44 | 62 |
| Oil Temperature | DEG C | | | | 36 | 40 | 36 | 40 | 35 | 42 | 36 | 42 | 36 | 45 | 38 | 72 | 44 | 60 |
| Pressure | psig | | | | -.5 | -.5 | -.5 | -.5 | -.9 | -.5 | -1.0 | -.5 | -.9 | 0 | -.7 | .5 | -1.5 | 2.5 |
| 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 | | | | 72 | 72 | 70 | 72 | 71 | 73 | 72 | 76 | 70 | 78 | 72 | 76 | 73 | 77 |
| Counter | | | | | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 | 163 |
| **52T6** | | | | | | | | | | | | | | | | | | |
| SF6 Pressure | psig | | | | 70 | 70 | 68 | 70 | 68 | 71 | 69 | 71 | 68 | 75 | 70 | 74 | 70 | 75 |
| Counter | | | | | 146 | 146 | 146 | 146 | 146 | 146 | 146 | 146 | 146 | 146 | 146 | 146 | 146 | 146 |
| **52U** | | | | | | | | | | | | | | | | | | |
| SF6 Pressure | psig | | | | 65 | 65 | 62 | 66 | 63 | 67 | 65 | 67 | 64 | 70 | 66 | 68 | 65 | 70 |
| Counter | | | | | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 | 97 |
| Shift Supervisor Review | INIT | | | | DW | | DW | RK | DW | RK | DW | RK | [illegible] | [illegible] | [illegible] | [illegible] | DV | |

# Hunlock Creek Energy Center

## Operator Logs

Week Beginning: 6/4/12

| Chiller Logs Unit 1* | Units | Min | Norm | Max | 6/4/12 Day | 6/4/12 Night | 6/5/12 Day | 6/5/12 Night | 6/6/12 Day | 6/6/12 Night | 6/7/12 Day | 6/7/12 Night | 6/8/12 Day | 6/8/12 Night | 6/9/12 Day | 6/9/12 Night | 6/10/12 Day | 6/10/12 Night |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Online or Offline | on/off | | | | OFF | OFF | OFF | OFF | OFF | ON | OFF | ON | OFF | ON | OFF | ON | OFF | 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 | | | | 54.5 | 55.5 | 56.1 | 57.3 | 58.2 | 50.2 | 53.3 | 51.3 | 53.1 | 49.4 | | 50.9 | 54.7 | 53.2 |
| Outlet Temp | Deg F | | | | 54.5 | 55.7 | 56.2 | 57.4 | 58.4 | 47.9 | 53.1 | 47.9 | 52.8 | 45.9 | | 45.9 | 54.1 | 45.9 |
| Refrigerant Press | | | | | -6.4 | -6.2 | -6.1 | -5.9 | -5.7 | -7.6 | -6.6 | -8.0 | -6.7 | -7.9 | | -8.3 | -6.3 | -7.8 |
| **Condenser** | | | | | | | | | | | | | | | | | | |
| Inlet Temp | Deg F | | | | 64.7 | 64.0 | 62.5 | 64.2 | 64.6 | 70.8 | 68.2 | 70.9 | 67.2 | 70.8 | | 71.4 | 69.9 | 78.0 |
| Outlet Temp | Deg F | | | | 64.5 | 64.3 | 62.7 | 64.4 | 64.7 | 73.3 | 69.4 | 74.5 | 67 | 74.3 | | 76.2 | 69.9 | 84.5 |
| Refrigerant Press | | | | | -6.4 | -6.3 | -6.1 | -6.0 | -5.8 | -7.9 | -6.7 | -7.8 | -6.9 | -8.2 | | -7.3 | -6.4 | -8.2 |
| **Compressor** | | | | | | | | | | | | | | | | | | |
| Starts | | | | | 84 | 84 | 84 | 84 | 84 | 84 | 85 | 86 | 86 | 86 | | 87 | 87 | 87 |
| Runtime | Hours | | | | 511:15 | 511:15 | 511:15 | 511:15 | 511:15 | 511:15 | 511:52 | 519:32 | 522:22 | 522:22 | | 531:57 | 534:36 | 534:36 |
| Oil Tank Pressure | psig | | | | -6.5 | -6.4 | -6.2 | -6.1 | -5.9 | -8.0 | -6.8 | -7.7 | -6.8 | -8.3 | | -7.9 | -6.5 | -8.3 |
| Oil Discharge Pressure | psig | | | | -6.5 | -6.4 | -6.3 | -6.1 | -5.9 | -8.0 | -6.8 | 18.9 | -6.9 | -8.3 | | 21.4 | -6.6 | -8.3 |
| Oil Differential Pressure | psid | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 27.30 | 0 | 0 |
| Oil Level | | | * | | OK | OK | OK | OK | OK | OK | OK | OK | OK | OK | OK | OK | OK | OK |
| Oil Tank Temp | Deg F | | | | 141.3 | 140.5 | 140.7 | 144.0 | 139.4 | 142.2 | 146.2 | 149.8 | 143.5 | 143.5 | | 111.3 | 143 | 140.3 |
| IGV 1 Position | % | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18.1 | 0 | 0 | | 26.1 | 0 | 0 |
| IGV 2 Position | % | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 68.1 | 0 | 0 | | 22.3 | 0 | 0 |
| IGV 1 Steps | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9394 | 0 | 0 | | 13609 | 0 | 0 |
| IGV Steps | | | | | 2608 | 0 | 0 | 0 | 0 | 0 | 0 | 32249 | 0 | 0 | | 36754 | 0 | 0 |
| **Motor** | | | | | | | | | | | | | | | | | | |
| % RLA L1, L2, L3 | % | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44.7 | 0 | 0 | | 53 | 0 | 0 |
| Amps L1, L2, L3 | amps | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118 | 0 | 0 | | 137 | 0 | 0 |
| Volts AB, BC, CA | Volts | | | | 2368 | 2361 | 2375 | 2385 | 2380 | 2357 | 2374 | 2364 | 2375 | 2373 | | 2363 | 2377 | 2357 |
| Power kW | kW | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 393 | 0 | 0 | | 484.9 | 0 | 0 |
| pF | | | | | 0 | 0 | 0 | -0.03 | 0.01 | 0.01 | 0 | 0.82 | 0 | -.01 | | .84 | 0 | 0 |
| Winding Temp #1 | Deg F | | | | 63 | 62.2 | 58.8 | 62.3 | 62.7 | 67.1 | 73.7 | 76.8 | 72 | 72.4 | | 86.9 | 75.6 | 72.4 |
| Winding Temp #2 | Deg F | | | | 63.8 | 62.7 | 60.5 | 62.8 | 63.3 | 68.0 | 74.7 | 75.4 | 73.1 | 73 | | 84.6 | 76.7 | 78.0 |
| Winding Temp #3 | Deg F | | | | 63.4 | 62.5 | 60.2 | 62.5 | 63.1 | 67.6 | 74.1 | 74.4 | 72.3 | 72.8 | | 92.1 | 75.9 | 72.8 |
| Shift Supervisor Review | | | | | DW | | DW | RS | DW | RS | DW | RS | ES.P. | | ES.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: 6/4/12

| | Units | Min | Norm | Max | 6/4/12 Day | 6/4/12 Night | 6/5/12 Day | 6/5/12 Night | 6/6/12 Day | 6/6/12 Night | 6/7/12 Day | 6/7/12 Night | 6/8/12 Day | 6/8/12 Night | 6/9/12 Day | 6/9/12 Night | 6/10/12 Day | 6/10/12 Night |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Chiller Logs Unit 2*** | | | | | | | | | | | | | | | | | | |
| **Online or Offline** | on/off | | | | OFF | OFF | OFF | OFF | OFF | ON | OFF | ON | OFF | ON | OFF | ON | OFF | 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 | | | | 54.5 | 55.3 | 56.1 | 57.3 | 58.2 | 56.2 | 53.3 | 51.3 | 53.1 | 48.4 | | 50.8 | 54.8 | 57.2 |
| Outlet Temp | Deg F | | | | 54.5 | 55.7 | 56.2 | 57.4 | 58.4 | 47.9 | 53.1 | 47.9 | 52.8 | 46.0 | | 45.9 | 54.1 | 45.9 |
| Refrigerant Press | | | | | -6.4 | -6.2 | -6.1 | -5.9 | -5.7 | -7.6 | -6.6 | -8.0 | -6.7 | -8.3 | | -7.0 | -6.4 | -8.3 |
| **Condenser** | | | | | | | | | | | | | | | | | | |
| Inlet Temp | Deg F | | | | 64.7 | 64.4 | 62.5 | 64.2 | 64.6 | 73.8 | 69.2 | 76.9 | 67 | 70.8 | | 71.1 | 69.9 | 78.0 |
| Outlet Temp | Deg F | | | | 64.5 | 64.3 | 62.7 | 64.4 | 64.7 | 73.3 | 69.4 | 74.5 | 67.2 | 74.3 | | 76.2 | 69.8 | 84.5 |
| Refrigerant Press | | | | | -6.5 | -6.3 | -6.2 | -6.0 | -5.8 | -7.9 | -6.8 | -1.8 | -6.7 | -1.9 | | -7.4 | -6.6 | 1.3 |
| **Compressor** | | | | | | | | | | | | | | | | | | |
| Starts | | | | | 87 | 87 | 87 | 87 | 87 | 88 | 88 | 88 | 88 | 89 | | 89 | 89 | 90 |
| Runtime | Hours | | | | 474:35 | 474:35 | 474:35 | 474:35 | 474:35 | 481:17 | 483:44 | 483:44 | 483:44 | 493:40 | | 498:09 | 498:09 | 506:21 |
| Oil Tank Pressure | psig | | | | -6.6 | -6.4 | -6.5 | -6.1 | -5.9 | -7.7 | -6.9 | -7.4 | -7 | -7.9 | | -7.5 | -6.7 | -7.4 |
| Oil Discharge Pressure | psig | | | | -6.5 | -6.3 | -6.2 | -6.0 | -5.8 | 16.9 | -6.8 | -7.3 | -6.9 | 13.9 | | -7.4 | -6.6 | 15.0 |
| Oil Differential Pressure | psid | | | | 0 | 0 | 0 | 0 | 0 | 14.55 | 13.9 | 0 | 0 | 21.74 | | 0 | 0 | 22.22 |
| Oil Level | | | * | | OK | OK | OK | OK | OK | OK | OK | OK | OK | OK | OK | OK | OK | OK |
| Oil Tank Temp | Deg F | | | | 141.9 | 146.5 | 140.8 | 142.0 | 140.2 | 103.8 | 0 | 140.2 | 146.1 | 107.6 | | 141.5 | 143 | 116.2 |
| IGV 1 Position | % | | | | 0 | 0 | 0 | 0 | 0 | 14.2 | 0 | 0 | 0 | 18.1 | | 0 | 0 | 49.6 |
| IGV 2 Position | % | | | | 0 | 0 | 0 | 0 | 0 | 57.9 | 0 | 0 | 0 | 68.1 | | 0 | 0 | 87.3 |
| IGV 1 Steps | | | | | 0 | 0 | 0 | 0 | 0 | 5916 | 0 | 0 | 0 | 9605 | | 0 | 0 | 23714 |
| IGV 2 Steps | | | | | 13200 | 0 | 0 | 0 | 0 | 24821 | 0 | 0 | 0 | 34849 | | 0 | 0 | 40805 |
| **Motor** | | | | | | | | | | | | | | | | | | |
| % RLA L1, L2, L3 | % | | | | 0 | 0 | 0 | 0 | 0 | 33.7 | 0 | 0 | 0 | 40.4 | | 0 | 0 | 68 |
| Amps L1, L2, L3 | amps | | | | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 118 | | 0 | 0 | 182 |
| Volts AB, BC, CA | Volts | | | | 2380 | 2381 | 2377 | 2378 | 2385 | 2353 | 2377 | 2379 | 2376 | 2367 | | 2366 | 2384 | 2353 |
| Power kW | kW | | | | 0 | 0 | 0 | 0 | 0 | 273 | 0 | 0 | 0 | 385.8 | | 0 | 0 | 716 |
| pF | | | | | 0 | 0.01 | -0.01 | -0.01 | 0.01 | 0.73 | 0 | 0 | 0 | .79 | | .01 | 0 | .89 |
| Winding Temp #1 | Deg F | | | | 62.8 | 62.3 | 60.2 | 62.7 | 63.1 | 84.0 | 74.1 | 71.3 | 65.8 | 86.7 | | 72 | 68.8 | 106.8 |
| Winding Temp #2 | Deg F | | | | 62.9 | 62.3 | 60.2 | 62.6 | 63.1 | 83.8 | 74.3 | 71.7 | 66 | 86.8 | | 72.1 | 68.9 | 107.1 |
| Winding Temp #3 | Deg F | | | | 64.1 | 63.5 | 61.6 | 64.0 | 64.5 | 88.1 | 75.4 | 72.1 | 66.8 | 92.9 | | 73.5 | 70.2 | 118.7 |
| Shift Supervisor Review | | | | | DW | | DW | DW | DW | DW | DW | DW | E.S.F. | DW | E.S.F. | | | |

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