

GAINESVILLE RENEWABLE ENERGY CENTER

Operated by **NAES**



June 2015 MONTHLY PERFORMANCE REPORT

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1. SUMMARY

The plant ran well during June with the exception of a 24 hour forced outage caused by a failed control system component. When re-starting from this outage, a leak in feed water heater HP2 was discovered. The heater will be repaired in the fall. The unit will operate at full load without the heater, but at reduced efficiency. There were no safety or environmental incidents. The employee in the Maintenance Planner position resigned to take another job in the area. Efforts to fill the job are underway.

Operations:

The unit operated for 689.03hours in the month of June. GREC experienced one forced outage and a number of issues that delayed restarting the unit.

Feed water heater HP2 appears to have developed a tube or tube sheet leak. HP2 has been isolated and bypassed.

2. MONTHLY PERFORMANCE DATA

2015																	
PLANT SUMMARY																	
Monthly Performance Data	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	QTR 1	QTR 2	QTR 3	QTR 4	YTD
Operations																	
Gross Generation (MWh)	49,418	55,357	60,383	32,781	45,671	58,655	0	0	0	0	0	0	165,158	137,107	0	0	302,265
Net Generation (MWh)	42,953	48,167	54,434	28,374	39,642	51,088	0	0	0	0	0	0	145,554	119,104	0	0	264,658
Solid Fuel Flow (ft3)	REDACTED																
Solid fuel Flow (Tons)	REDACTED																
Natural Gas Usage MMBTU	1,655	0	0	0	1,994	569	0	0	0	0	0	0	1,655	2,563	0	0	4,218
Avg Burn rate (Tons/nMWH)	REDACTED																
Operating hours	592	672	744	562	551	697	0	0	0	0	0	0	2,008	1,809	0	0	3,818
Number of trips	5	0	0	3	0	2	0	0	0	0	0	0	5	5	0	0	10
Safety																	
Lost Time Accidents	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lost Time Incident Rate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recordables	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recordable Incident Rate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
First Aid Incidents	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Near Miss Incidents	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance: WO Summary																	
Start Backlog	130	133	171	158	162	109	0	0	0	0	0	0	434	429	0	0	863
End Backlog	73	90	112	114	62	76	0	0	0	0	0	0	275	252	0	0	527
New Wos/Comp Rec WO's	170	247	186	139	154	159	0	0	0	0	0	0	603	452	0	0	1,055
Total Completed W.O.s	227	290	245	183	254	192	0	0	0	0	0	0	762	629	0	0	1,391
Received WO's	234	331	241	191	206	203	0	0	0	0	0	0	806	600	0	0	1,406

3. PRODUCTION STATISTICS

2015																	
Production Statistics																	
Monthly Performance Data	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	QTR 1	QTR 2	QTR 3	QTR 4	YTD
Other																	
Ammonia Received (Gallons)	13,008	13,016	13,000	6,475	6,437	12,915	0	0	0	0	0	0	39,024	25,827	0	0	64,851
Ammonia Consumed	11,058	12,866	12,700	6,775	10,037	12,765	0	0	0	0	0	0	36,624	29,577	0	0	66,201
Sodium Bicarbonate Received (Tons)	24	0	24	23	24	0	0	0	0	0	0	0	48	47	0	0	95
Sodium Bicarbonate Consumed	20	25	17	17	9	27	0	0	0	0	0	0	63	53	0	0	116
Bottom Ash Generated (Tons)	230	259	462	181	352	245	0	0	0	0	0	0	951	778	0	0	1,728
Fly Ash Generated (Tons)	981	1,043	1,102	958	520	1,077	0	0	0	0	0	0	3,126	2,555	0	0	5,681
Filter Cake (Tons)	78	73	102	47	60	107	0	0	0	0	0	0	253	215	0	0	468
Diesel Fuel																	
Diesel Fuel Received	4,410	4,006	5,087	3,488	4,822	3,595	0	0	0	0	0	0	13,503	11,904	0	0	25,407
Diesel Fuel Burned	4,410	4,006	5,087	3,488	4,822	3,595	0	0	0	0	0	0	13,503	11,905	0	0	25,408
- Heavy Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- Boiler	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diesel Fuel Ending Inventory	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
													0	0	0	0	
Water																	
Process Water Usage	10,479,714	10,113,783	12,700,990	8,701,923	14,153,347	15,224,071	0	0	0	0	0	0	33,294,487	38,079,341	0	0	71,373,828
Reclaim Water Usage	13,106,824	15,488,745	18,109,532	9,403,562	11,906,570	18,044,411	0	0	0	0	0	0	46,705,101	36,534,203	0	0	83,239,304

4. SAFETY

NAES Staff

	Month	Hours	First Aid	Recordable	Rec. Rate	LTA	LTA Rate	Near Miss
2014	January	6772.75	0	0	0.0	0	0.0	0
	February	6915.50	0	0	0.0	0	0.0	0
	March	6543.25	0	0	0.0	0	0.0	0
	April	6653.25	0	0	0.0	0	0.0	0
	May	12832.75	0	0	0.0	0	0.0	0
	June	6477	0	0	0.0	0	0.0	0
	July		0	0	0.0	0	0.0	0
	August		0	0	0.0	0	0.0	0
	September		0	0	0.0	0	0.0	0
	October		0	0	0.0	0	0.0	0
	November		0	0	0.0	0	0.0	0
	December		0	0	0.0	0	0.0	0
Year to Date Total		46,194.51	0.00	0.00	0.00	0.00	0.00	0.00

Contractors

	Month	Hours	First Aid	Recordable	Rec. Rate	LTA	LTA Rate	Near Miss
2014	January	2645	0	0	0.0	0	0.0	0
	February	511	0	0	0.0	0	0.0	0
	March	655	0	0	0.0	0	0.0	0
	April	6040	1	0	0.0	0	0.0	0
	May	7143	0	0	0.0	0	0.0	0
	June	658	0	0	0.0	0	0.0	0
	July	0	0	0	0.0	0	0.0	0
	August	0	0	0	0.0	0	0.0	0
	September	0	0	0	0.0	0	0.0	0
	October	0	0	0	0.0	0	0.0	0
	November	0	0	0	0.0	0	0.0	0
	December	0	0	0	0.0	0	0.0	0
Year to Date Total		17,651.50	1.00	0.00	0.00	0.00	0.00	0.00

Accidents:

There were no injuries reported in June.

Near Miss Reports:

No Near Miss Reports were completed in June.

Training:

36 individuals completed 74 safety courses in June.

5. ENGINEERING & ENVIRONMENTAL

Upcoming

- Title V FDEP Application response to be published ~ 7/10
- Title V Semi-Annual Deviation Monitoring Report 7/30
- Potential Ammonia Increased Injection to meet Ozone season tonnage allowance
- SPCC/SWPPP Annual Training 8/31
- Fly Ash & Salt Cake beneficial re-use alternatives
- Finalize SMP-4 revisions including WoodYard BMPs

6. OPERATIONS

A total of 51,087.96 nMW hours of electricity were generated during the month. The monthly Average Burn Rate was **REDACTED**

A total of 2,368 trucks were unloaded with 64,997.4 tons of wood received and **REDACTED**. There were 72 Safe Work, 31 LOTO, and 8 Confined Space permits written.

Feedwater heater HP2 has developed a leak from the tube to the shell. The leak was significant enough to lift the shell side safety during our last start-up from a forced outage. We are scheduling an October outage to address repairs.

Three feed-water drain valves and one boiler downcomer drain valve were found to be leaking by significantly. These valves were plugged and will be replaced next outage. Condenser make-up rate has returned to normal.

We had experienced a number of high resistance ground alarms and emergency diesel starts. The grounding issues were located in PDC air conditioning units and have been resolved.

7. WATER CHEMISTRY

- **Cooling Tower:** System running well and chemistry in specifications.
- **Boiler/ Make-Up Water:** Three Feed water drain valves and one Downcomer drain valve have been plugged. Mack up rate has returned to normal. RO train “A” had high silica from one vessel after cleaning. Membranes replaces and silica lowered, although still higher than normal. Investigation continues.
- **Well/Reclaim Water:** Systems running well.
- **ZDS:** Crystallizer Flash tank has been developing a calcium build-up. Performing weekly boil-outs in an effort to remove build-up.
- **Potable water:** Completed and submitted monthly and quarterly samples, including Bacteria, SOCs, and VOCs.

8. FUEL HANDLING

- Weekly and Monthly PMs completed.

9. TRAINING

- GPiLearn: 36 individuals completed 112 total courses in June.
- Two contractors received NAES site safety training in June.

10. MAINTENANCE

- Had crews complete GPiLearn training.
- Held daily safety meetings with maintenance crews.
- IC/E worked with NASS on the replacement of the low-level oil gauge on the GSU Transformer.
- SKF Engineering came to site for their quality visit/work with Tim Stanford.
- Sent out one rotatory feeder for rebuild quote.
- Received all oil analysis reports from Mobile Sigmun.
- IC/E worked the ZDS level transmitter.
- Had Steam-Con quote the Aux steam line leak.
- Had Furmanite quote the Aux. steam line leak.
- Called out IC/E Tech out to help resolve issues with unit on June 6th.
- IC/E worked scheduled PMs.
- Mechanics worked scheduled PM's.
- Had Mechanic tighten all loose bolting on the CND flange after the condenser.
- Had Mechanics change out the gear drive on # 1 under pile due to oil seal leak.
- Called out Ring Power to investigate the issue with the Reman Wagner in fuel yard.
- IC/E worked on the replacement of the inbound scale house kiosk for BRM.
- IC/E replaced the exhaust fan motor in the electric fire pump room.
- Mechanics replaced the crystallizer condenser tube bundle.
- Attended Lessons Learned meeting from April outage.
- Met with GFD for re-inspection.
- Met with Mogas Valve rep.
- Met to review Procurement assessment.
- Held phone conference with SPX about Heat exchanger # 2, Trouble shoot, fix, cost, cost of bundle, when would be the best time to do the job.
- IC/E Techs worked ground fault issues in all MCC rooms.
- Met with insulator contractor to quote aux steam line.
- Replaced stack light and notified FAA of repair.
- Met with AIG insurance carrier.
- Sent information to SPX for feed water heater quote.
- Obtained quotes from three vendors for belt replacements.
- Had vendor provide training class for IC/E Techs.
- SKF Summary report, 118 total readings, 1 action item, and 3 watch items.
- Scheduled work orders for June – 203. Completed work orders - 192.

11. ADMINISTRATION

Staffing:

There were no positions open as of June 30, 2015.

Temporary Staffing:

There was no temporary labor on site in June.

June Statistics:

- Payroll: 82 Payroll records processed
- Accounts Payable: 195 invoices processed*, 116 payments processed
*June Invoices will continue to be processed through July 15, 2015.
- Procurement: 101 Requisitions reviewed, 101 Purchase Orders generated
- June Overtime: 14.39% of total hours
- 2015 annual overtime: 19.22% of total hours

Spare Parts Inventory Value: \$REDACTED