

# GAINESVILLE RENEWABLE ENERGY CENTER

Operated by **NAES**



## March 2015 MONTHLY PERFORMANCE REPORT

## TABLE OF CONTENTS

1. SUMMARY.....	3
2. MONTHLY PERFORMANCE DATA.....	4
3. PRODUCTION STATISTICS.....	5
4. SAFETY.....	6
5. ENGINEERING & ENVIRONMENTAL.....	7
6. OPERATIONS.....	8
7. WATER CHEMISTRY.....	8
8. FUEL HANDLING.....	9
9. TRAINING.....	9
10. MAINTENANCE.....	9
11. ADMINISTRATION.....	10

## 1. SUMMARY

The plant ran well in March, achieving 100% availability. There were no safety incidents or environmental events.

### **Operations:**

The unit operated for 744 hours in the month of March. GREC experienced no forced outages or derates this month.

A Field Service Engineer from Allen Sherman Hoff visited the site to evaluate the Fly Ash system and offer optimization recommendations. Metso Automation visited site and performed controls tuning. Hartford Steam Boiler visited to perform a site walk-down / insurance inspection. A slow natural gas leak was discovered from a relief valve at our main reducing station.

## 2. MONTHLY PERFORMANCE DATA

2015																	
PLANT SUMMARY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	QTR 1	QTR 2	QTR 3	QTR 4	YTD
<b>Monthly Performance Data</b>																	
<b>Operations</b>																	
Gross Generation (MWh)	49,418	55,357	60,383	0	0	0	0	0	0	0	0	0	165,158	0	0	0	165,158
Net Generation (MWh)	42,953	48,167	54,434	0	0	0	0	0	0	0	0	0	145,554	0	0	0	145,554
Solid Fuel Flow (ft3)	REDACTED																
Solid fuel Flow (Tons)	REDACTED																
Natural Gas Usage MMBTU	1,655	0	0	0	0	0	0	0	0	0	0	0	1,655	0	0	0	1,655
Avg Burn rate (Tons/nMWH)	REDACTED																
Operating hours	592	672	744	0	0	0	0	0	0	0	0	0	2,008	0	0	0	2,008
Number of trips	5	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5
<b>Safety</b>																	
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
<b>Maintenance: WO Summary</b>																	
Start Backlog	130	133	171	0	0	0	0	0	0	0	0	0	434	0	0	0	434
End Backlog	73	90	112	0	0	0	0	0	0	0	0	0	275	0	0	0	275
New Wos/Comp Rec WO's	170	247	186	0	0	0	0	0	0	0	0	0	603	0	0	0	603
Total Completed W.O.s	227	290	245	0	0	0	0	0	0	0	0	0	762	0	0	0	762
Received WO's	234	331	241	0	0	0	0	0	0	0	0	0	806	0	0	0	806

### 3. PRODUCTION STATISTICS

2015																	
Production Statistics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	QTR 1	QTR 2	QTR 3	QTR 4	YTD
<b>Monthly Performance Data</b>																	
<b>Other</b>																	
Ammonia Received (Gallons)	13,008	13,016	6,469	0	0	0	0	0	0	0	0	0	32,493	0	0	0	32,493
Ammonia Consumed	11,058	12,866	6,169	0	0	0	0	0	0	0	0	0	30,093	0	0	0	30,093
Sodium Bicarbonate Received (Tons)	24	0	24	0	0	0	0	0	0	0	0	0	48	0	0	0	48
Sodium Bicarbonate Consumed	20	25	17	0	0	0	0	0	0	0	0	0	63	0	0	0	63
Bottom Ash Generated (Tons)	230	259	462	0	0	0	0	0	0	0	0	0	951	0	0	0	951
Fly Ash Generated (Tons)	981	1,043	1,102	0	0	0	0	0	0	0	0	0	3,126	0	0	0	3,126
Filter Cake (Tons)	78	73	102	0	0	0	0	0	0	0	0	0	253	0	0	0	253
<b>Diesel Fuel</b>																	
Diesel Fuel Received	4,410	4,006	5,087	0	0	0	0	0	0	0	0	0	13,503	0	0	0	13,503
Diesel Fuel Burned	4,410	4,006	5,087	0	0	0	0	0	0	0	0	0	13,503	0	0	0	13,503
- 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
<b>Water</b>													0	0	0	0	0
Process Water Usage	10,479,714	10,113,783	12,700,990	0	0	0	0	0	0	0	0	0	33,294,487	0	0	0	33,294,487
Reclaim Water Usage	13,106,824	15,488,745	18,109,532	0	0	0	0	0	0	0	0	0	46,705,101	0	0	0	46,705,101

## 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	6915.5	0	0	0.0	0	0.0	0
	March	6543.25	0	0	0.0	0	0.0	0
	April		0	0	0.0	0	0.0	0
	May		0	0	0.0	0	0.0	0
	June		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
<b>Year to Date Total</b>		<b>20,231.59</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

### 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	409	0	0	0.0	0	0.0	0
	April	0	0	0	0.0	0	0.0	0
	May	0	0	0	0.0	0	0.0	0
	June	0	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
<b>Year to Date Total</b>		<b>3,565.10</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**Accidents:**

There were no injuries reported in March.

**Near Miss Reports:**

No Near Miss Reports were completed in March.

**Training:**

39 individuals completed 114 safety courses in March.

## 5. ENGINEERING & ENVIRONMENTAL

- 3/2: Title V Permit Modification Application
- 3/20: CEMS VIM Operations training complete
- 3/25: Resume fly ash to Suwannee Cement – 4 loads per week
- 3/25: Greenhouse Gas, Annual Operating & Stormwater Discharge Reports Submitted

**Pending**

- FDEP Enforcement decision regarding NOx on 1/12
- Quarterly Emissions Reports
- Stormwater Detention Ponds – Vegetation Removal
- Finalize SMP-4 revisions including WoodYard BMPs
- SWPPP/SPCC training (3)
- Bottom Ash & Salt Cake hauling alternatives
- Mobile vehicular trailer tank notification/disclosure

Note: Bottom ash volume due to 194 tons of outage bed sand disposal. Actual monthly production 268 tons.

## 6. OPERATIONS

A total of 52,434.42 nMW hours of electricity were generated during the month. The monthly Average Burn Rate was **REDACTED**

A total of 1,882 trucks were unloaded with 53,111 tons of wood received and **REDACTED**

There were 96 Safe Work, 50 LOTO, and 1 Confined Space permits written.

Allen Sherman Hoff Field Service Engineer evaluated the Fly ash system and recommended changes in our set-points, order of cleaning and cleaning frequency. Recommendations will be put into place and evaluated. David Eapen, from Metso Automation, tuned the Ammonia Injection loop, and DA Level Control loop. Load was cycled up and down and improvements were noted. A slow natural gas leak was discovered from a relief valve at our main reducing station. The main isolation remains shut and will be open only as needed for burner operation until repairs are made during the April outage.

## 7. WATER CHEMISTRY

- **Cooling Tower:** The cooling tower chlorine feed continues to be somewhat erratic with chemical pump vapor lock issues causing most of the problems. Re-plumbing the system and adding vents have helped and we continue to work on the system.
- **Boiler/ Make-Up Water:** Low level sodium hypochlorite dosing of Service Water tank has begun, resulting in Ultra Filtration and RO systems operating more efficiently.
- **Well/Reclaim Water:** System is running well. We will be adding logic to secure sodium hypo pumps when well water and reclaim water flow is secured. Also, will be adding logic to automate the Well Water Pump start sequence to ensure proper start-up lubrication to the bearings.
- **ZDS:** Vapor compressor outlet expansion joint has been wrapped in order to control a leak and continues to hold adequately. Join replacement is scheduled for the April outage.
- **Potable water:** Completed and submitted monthly and quarterly samples, including Bacteria. First quarter 2015 Lead/Copper, SOC, and VOC results came back negative.



## 8. FUEL HANDLING

- Began trial of new odor control product which is sprayed in fuel at transfer point on #4 belt discharge. So far no significant difference has been noted.
- Dust Collector #1 has experienced plugging issues related to bag age and rotary valve wear. We have changed our operating procedure to allow for an extended cleaning cycle of the dust collection system after shutdown.
- New tires have been received for the remanufactured Wagner chip dozer. They will be mounted during the fuel yard outage.

## 9. TRAINING

- GPILearn: 39 individuals completed 114 total courses in March.
- Four contractors received NAES site safety training in March.

## 10. MAINTENANCE

- Held daily safety meetings with crews.
- Completed March GPI-Learn courses.
- Performed safety audits around site for the month.
- Held April Outage meetings, Boiler/BOP/Fuel yard.
- Met with Siemens about job scope for April outage.
- Met with Brand for scaffolding needs for Siemens Turbine job.
- Had Brand inspect all rented scaffolding on site.
- Walked job scope with QCS for scaffold needs for BOP outage.
- Walked job scope with Taylor Ind. for Turbine roof removal and piping scope.
- Walked job scope with Preston Link Cont. for electrical scope on Turbine.
- Worked job scope with electrical contractor and FDC on barrier gate project.
- Worked IAS Compressor "A" high temp shutdown.
- Worked FHS stacker hydraulic HCU high temp alarm in reclaimer.
- Worked FHS #5 Conveyer take –up shaft damaged bearing.
- Mechanical & Electrical changed motor on bag house compressor.
- Changed cable on #3 high speed door cord ripped off by truck.
- Changed sprocket on chain feeder 1 spike roller - walking off shaft.
- Mechanical crews worked monthly PMs.
- IC/E crews worked monthly PMs.
- Replaced # 2 belt head scrapper due to wear.
- Worked FEDI ticket, reprogrammed logic.

- Had Allied-Locke Inds. inspect our stacker chain pins, rollers and wear plate. All within tolerance. 1 % wear total.
- Met with Allen-Sherman-Hoff technical rep. to discuss our issues / problem areas of maintenance and operations with system.
- Repaired Bay # 3 back-stop and inspected pit-bridge, fuel yard.
- SKF Summary Report: 250 asset readings total, 1 action item, and no watch items.
- Scheduled work orders: 241 / Completed work orders: 245

## 11. ADMINISTRATION

### Staffing:

There were no positions open as of March 31, 2015.

### Temporary Staffing:

There was no temporary labor on site in March.

### March Statistics:

- Payroll: 80 Payroll records processed
- Accounts Payable: 218 invoices processed\*, 137 payments processed  
\*March Invoices will continue to be processed through April 15, 2015.
- Procurement: 146 Requisitions reviewed, 146 Purchase Orders generated
- March Overtime: 15.80% of total hours
- 2015 annual overtime: 17.12 % of total hours

Spare Parts Inventory Value: \$ **REDACTED**