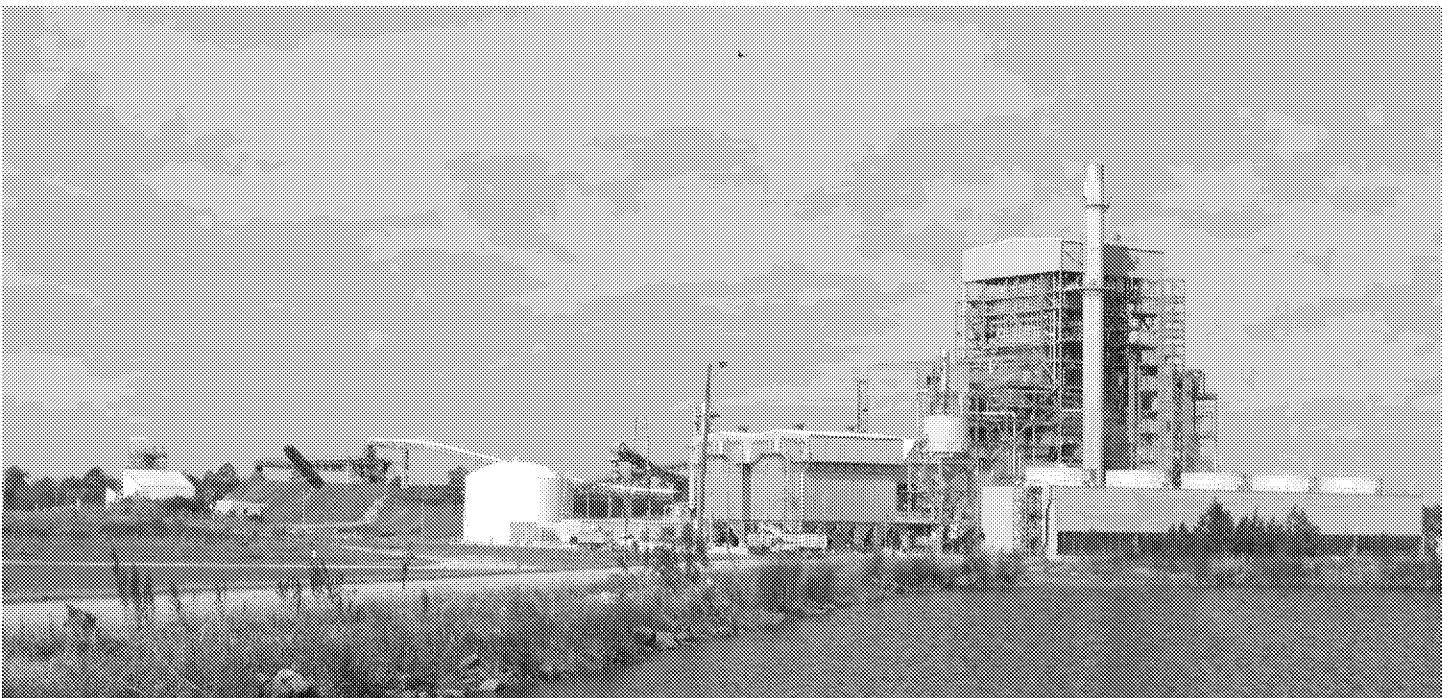


# **GAINESVILLE RENEWABLE ENERGY CENTER**

Operated by **NAES**



## **September 2016 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.....	7
7. WATER CHEMISTRY.....	8
8. FUEL HANDLING.....	8
9. TRAINING.....	8
10. MAINTENANCE.....	9
11. ADMINISTRATION.....	10

## 1. SUMMARY

The plant was on reserve shutdown all of September until the 30<sup>th</sup>, when we began generating power after being dispatched for load by GRU. GREC was contacted by GRU on 9/28 to let us know that wanted GREC on line at 70 MWs by noon on 9/30. On Thursday, GRU requested that GREC be brought on line as quickly as possible. In response, GREC was at 70 MWs by 7:00 am 9/30. The unit did experience a trip that morning that was caused by wet fuel. The problem was resolved, and the unit was back at 70 MWs by 11:30am. There were no safety or environmental incidents.

### **Operations:**

GREC remained in Reserve Shutdown for most of the month of September. GRU dispatched GREC to be on line at minimum load at 12:00 9/30/2016. The unit has been available for 716.82 hours this month.

While in Reserve Shutdown boiler and main steam lines remained in a dry lay-up with a nitrogen cap. The DA/ Feedwater tank continued to be in a wet lay-up with a nitrogen cap and the turbine/condenser is being supplied with a dehumidified air purge. We began receiving wood trucks to rebuild our inventory.

## 2. MONTHLY PERFORMANCE DATA

	2016																
<b>PLANT SUMMARY</b>																	
Monthly Performance Data	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	QTR 1	QTR 2	QTR 3	QTR 4	YTD
<b>Operations</b>																	
Gross Generation (MWh)	0	0	2,095	0	2,044	0	0	0	1,559	0	0	0	2,095	2,044	1,559	0	5,698
Net Generation (MWh)	0	0	1,835	0	1,800	0	0	0	1,356	0	0	0	1,835	1,800	1,356	0	4,991
Solid Fuel Flow (ft3)																	
Solid fuel Flow (Tons)																	
Natural Gas Usage MMBTU	0	0	3,059	0	1,792	0	0	0	2,729	0	0	0	3,059	1,792	2,729	0	7,580
Avg Burn rate (Tons/nMWH)																	
Operating hours	0	0	17	0	19	0	0	0	14	0	0	0	17	19	14	0	50
Number of trips	0	0	1	0	0	0	0	0	1	0	0	0	1	0	1	0	2
<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	206	111	109	255	256	127	126	137	237	0	0	0	0	0	0	0	0
End Backlog	110	91	93	116	163	151	176	131	320	0	0	0	0	0	0	0	0
New Wos/Comp Rec WO's	18	20	32	26	36	140	127	143	59	0	0	0	0	0	0	0	0
Total Completed W.O.s	114	157	157	139	152	172	166	157	139	0	0	0	0	0	0	0	0
Received WO's	40	198	188	184	59	196	136	194	222	0	0	0	0	0	0	0	0

### 3. PRODUCTION STATISTICS

2016																	
Production Statistics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	QTR 1	QTR 2	QTR 3	QTR 4	YTD
<b>Other</b>																	
Ammonia Received (Gallons)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ammonia Consumed	0	0	0	0	150	150	0	0	150	0	0	0	0	300	150	0	450
Sodium Bicarbonate Received (Tons)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sodium Bicarbonate Consumed	0	0	0	0	3	0	0	0	6	0	0	0	0	3	6	0	9
Bottom Ash Generated (Tons)	0	0	0	0	9	0	0	0	9	0	0	0	0	9	9	0	18
Fly Ash Generated (Tons)	43	25	0	0	0	105	55	53	0	0	0	0	68	105	108	0	281
Filter Cake (Tons)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Diesel Fuel</b>																	
Diesel Fuel Received	0	0	845	3,550	985	793	0	0	860	0	0	0	845	5,328	860	0	7,033
Diesel Fuel Burned	0	0	845	3,550	985	793	0	0	860	0	0	0	845	5,328	860	0	7,033
- 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>																	
Process Water Usage	256,162	80,763	2,037,975	16,664	1,207,276	78,329	93,203	88,328	1,073,802	0	0	0	2,374,900	1,302,269	1,255,333	0	4,932,502
Reclaim Water Usage	0	0	0	0	0	0	0	0	244,852	0	0	0	0	0	244,852	0	244,852

#### 4. SAFETY

##### NAES Staff

Month	Hours	First Aid	Recordable	Rec. Rate	LTA	LTA Rate	Near Miss
January	4913.5	0	0	0.0	0	0.0	0
February	5964.50	0	0	0.0	0	0.0	0
March	5982.50	0	0	0.0	0	0.0	0
April	8825.50	0	0	0.0	0	0.0	0
May	5869.25	0	0	0.0	0	0.0	0
June	5363.00	0	0	0.0	0	0.0	0
July	5632.50	0	0	0.0	0	0.0	0
August	5786.75	0	0	0.0	0	0.0	0
September	8550.00	0	0	0.0	0	0.0	0
October	0.00	0	0	0.0	0	0.0	0
November	0.00	0	0	0.0	0	0.0	0
December	0.00	0	0	0.0	0	0.0	0
<b>Year to Date Total</b>	<b>56,887.50</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
January	90	0	0	0.0	0	0.0	0
February	98	0	0	0.0	0	0.0	0
March	181	0	0	0.0	0	0.0	0
April	220	0	0	0.0	0	0.0	0
May	78	0	0	0.0	0	0.0	0
June	188	0	0	0.0	0	0.0	0
July	78	0	0	0.0	0	0.0	0
August	82	0	0	0.0	0	0.0	0
September	78	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>1,093.00</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 accidents in September.

**Near Miss Reports:**

No Near Miss Reports were completed in September.

**Training:**

36 individuals completed 77 safety courses in September.

## 5. ENGINEERING & ENVIRONMENTAL

- NOX Ozone Season ended September 30<sup>th</sup>

## 6. OPERATIONS

GREC started up to meet GRU's dispatch order to be on line and at 70 Nmw by 12:00 September 30<sup>th</sup>. Subsequently, System Control requested GREC to expedite start up. GREC was on line early but had a forced outage when wet fuel caused a boiler upset. The unit was brought back on line and was at minimum load and in AGC prior to 12:00 hrs.

There was 1,356.32 nMW generation during the month.

██████████ trucks were unloaded with ██████████ tons of wood received.

There was a total of 65 Safe Work Permits, 20 LOTOs, and 6 Confined Space Permit issued.

## 7. WATER CHEMISTRY

- **Cooling Tower:** Started up normal chlorine injection system at plant start-up
- **Boiler/ Make-Up Water:** Boiler chemistry excellent at start-up. A film forming amine was added to our chemistry to aid in pressure system and Turbine Preservation.
- **Well/Reclaim Water:** Both reclaim and well water systems were started up.
- **ZDS:** ZDS seeded and warming up in preparation for an extended run.
- **Potable water:** Completed and submitted monthly and quarterly samples, including Bacteria.

## 8. FUEL HANDLING

- Received ■ trucks of wood fuel.
- Fuel receiving and boiler feed systems started up with no issues.
- Performed grating inspections
- Experienced hydraulic oil leaks on both chip dozers. GREC rented two dozers until repairs are made to chip dozers.

## 9. TRAINING

- GPiLearn: 36 individuals completed 78 total courses in September
- One contractor received NAES site safety training in September.



## 10. MAINTENANCE

- All maintenance employees worked on GPiLearn training.
- Attended weekly safety meetings.
- Attended weekly MOC meetings.
- IC/E techs worked on monthly PMs.
- Mechanics worked on monthly PMs.
- Mechanics & IC/E worked on nitrogen generator installation.
- Cleaned all AC coils, and changed filters.
- Pulled monthly oil samples.
- IC/E worked ticket on ID Fan lube oil low alarm.
- IC/E worked ticket to adjust limit on switch and test SHP-Aux drain open limit.
- IC/E worked ticket on DMN-Emergency make up valve to condenser shaft not moving.
- IC/E worked NERC ticket on Mod-32.
- Mechanics worked ticket to seal water leaks found after hurricane around the turbine oil room.
- Mechanics patched SW corner on SA Fan expansion joint.
- Mechanics worked ticket to seal water leaks on standby generator.
- Mechanics worked ticket to seal water leaks on north PDC cable tray.
- Mechanics worked ticket to replace bad shaft on # 11 conveyor belt in fuel yard.
- Mechanics replaced a regulator and valve leaking on the potable water system.
- IC/E worked lighting ticket NW corner of fuel yard.
- Vendor came in to remove scaffolding .
- Quarterly sprinkler inspections performed by vendor.
- Monthly elevator inspection performed by vendor.
- IC/E adjusted limit switch on HP-1 NRV# 4
- IC/E adjusted limit switch to FWH-Extraction to HP # 2 drain.
- IC/E adjusted ID, lube oil Fan low flow alarm switch.
- Two mechanics sent to Rigging Training by SLINGMAX.
- Performed safety audits for the month.
- Maintenance Planner attended Valmet seminar.
- Mechanics changed oil in "B" BFW Pump, per oil sample from Mobil.
- Prepared for startup, walked and checked all systems. Stroked valves.
- Scheduled work orders for September: 237. Completed work orders: 139.

## 11. ADMINISTRATION

### **Staffing:**

There were three Fuel Yard positions open as of September 30, 2016, which will not be filled immediately.

### **Temporary Staffing:**

There was no temporary labor on site in September.

### **Statistics:**

- Payroll: 114 Payroll records processed.
- Accounts Payable: 134 invoices processed\*, 82 payments processed.  
\*September invoices will continue to be processed through October 15, 2016.
- Procurement: 64 Requisitions reviewed, 64 Purchase Orders generated.
- Overtime: 6.89% of total hours.
- 2016 annual overtime: 7.26% of total hours.

**Spare Parts Inventory Value:** 