

GAINESVILLE RENEWABLE ENERGY CENTER

Operated by **NAES**



October 2016 MONTHLY PERFORMANCE REPORT

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1. SUMMARY

The plant began the month of October on line, and ran until 10/10. It ran well during that period. There were no safety or environmental issues during October.

Operations:

GREC ran through October 10th when the unit was once again dispatched off line into Reserve Shutdown. The unit operated for 238 hours for the month.

While operating, the unit experienced one derate. The derate occurred when a Flue Gas Recirculation pressure sensor gave a bad reading and the FGR Fan damper shut causing an upset. The sensing line was blown down and the issue was resolved.

2. MONTHLY PERFORMANCE DATA

| | 2016 | | | | | | | | | | | | | | | | |
|--------------------------------|------|-----|-------|-----|-------|-----|-----|-----|-------|--------|-----|-----|-------|-------|-------|--------|--------|
| 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) | 0 | 0 | 2,095 | 0 | 2,044 | 0 | 0 | 0 | 1,559 | 21,086 | 0 | 0 | 2,095 | 2,044 | 1,559 | 21,086 | 26,784 |
| Net Generation (MWh) | 0 | 0 | 1,835 | 0 | 1,800 | 0 | 0 | 0 | 1,356 | 18,531 | 0 | 0 | 1,835 | 1,800 | 1,356 | 18,531 | 23,521 |
| 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 | 238 | 0 | 0 | 17 | 19 | 14 | 238 | 288 |
| Number of trips | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| 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 | 206 | 111 | 109 | 255 | 256 | 127 | 126 | 137 | 237 | 275 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| End Backlog | 110 | 91 | 93 | 116 | 163 | 151 | 176 | 131 | 320 | 374 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New Wos/Comp Rec WO's | 18 | 20 | 32 | 26 | 36 | 140 | 127 | 143 | 59 | 63 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Completed W.O.s | 114 | 157 | 157 | 139 | 152 | 172 | 166 | 157 | 139 | 150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Received WO's | 40 | 198 | 188 | 184 | 59 | 196 | 136 | 194 | 222 | 249 | 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 |
| Other | | | | | | | | | | | | | | | | | |
| 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 | 2,550 | 0 | 0 | 0 | 300 | 150 | 2,550 | 3,000 |
| 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 | 5 | 0 | 0 | 0 | 3 | 6 | 5 | 15 |
| Bottom Ash Generated (Tons) | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 9 | 36 | 0 | 0 | 0 | 9 | 9 | 36 | 54 |
| Fly Ash Generated (Tons) | 43 | 25 | 0 | 0 | 0 | 105 | 55 | 53 | 0 | 257 | 0 | 0 | 68 | 105 | 108 | 257 | 538 |
| Filter Cake (Tons) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 33 | 33 |
| Diesel Fuel | | | | | | | | | | | | | | | | | |
| Diesel Fuel Received | 0 | 0 | 845 | 3,550 | 985 | 793 | 0 | 0 | 860 | 3,328 | 0 | 0 | 845 | 5,328 | 860 | 3,328 | 10,361 |
| Diesel Fuel Burned | 0 | 0 | 845 | 3,550 | 985 | 793 | 0 | 0 | 860 | 3,328 | 0 | 0 | 845 | 5,328 | 860 | 3,328 | 10,361 |
| - 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 |
| Water | | | | | | | | | | | | | | | | | |
| Process Water Usage | 256,162 | 80,763 | 2,037,975 | 16,664 | 1,207,276 | 78,329 | 93,203 | 88,328 | 1,073,802 | 5,369,952 | 0 | 0 | 2,374,900 | 1,302,269 | 1,255,333 | 5,369,952 | 10,302,454 |
| Reclaim Water Usage | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 244,852 | 5,535,707 | 0 | 0 | 0 | 0 | 244,852 | 5,535,707 | 5,780,559 |

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 | 6552.25 | 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 |
| Year to Date Total | 63,439.75 | 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 |
|---------------------------|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 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 | 81 | 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 | 1,174.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Accidents:

There were no accidents in October.

Near Miss Reports:

No Near Miss Reports were completed in October.

Training:

38 individuals completed 84 safety courses in October.

5. ENGINEERING & ENVIRONMENTAL

- 10/3: Process Water Overflow reported
- 10/19: Activated Carbon applied to Woodyard – Odor Control
- 10/26: EIA 923 submitted
- 10/31: 3rd Quarter EER & EDR reports submitted to FDEP & EPA, CSPP submittal to EPA

6. OPERATIONS

GREC ran for 10 days in October to meet GRU's dispatch order. Subsequently, System Control requested GREC return to Reserve Shutdown status after running for 238 hours. GREC experienced one Derate when a FGR pressure transmitter reading failed and caused the FGR damper to shut and PA damper to open. The Controlroom Operator took manual control of the damper and reduced load to stabilize the plant.

There was 18,530.73 nMW generation during the month.

A total of [REDACTED] trucks were unloaded with [REDACTED] tons of wood received.

There was a total of 110 Safe Work Permits, 43 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:** 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 operated during the month.
- **ZDS:** System was started up and ran well. ZDS was put in standby for a week after the plant was shut down, and then flushed and drained.
- **Potable water:** Completed and submitted monthly and quarterly samples, including Bacteria.

8. FUEL HANDLING

- Received [REDACTED] trucks of wood fuel.
- Fuel receiving and boiler feed systems ran with no issues.
- Completed grating inspections
- Both Wagner chip dozers maintenance and repairs completed and are up and running.

9. TRAINING

- GPiLearn: 38 individuals completed 84 total courses in October.
- Five contractors received NAES site safety training in October.

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.
- Valmet worked on backup drives, Metso DCS.
- Worked on nitrogen generator installation and training.
- Pulled monthly oil samples.
- IC/E techs worked on fuel yard control system (will not reset).
- Performed PMs on North MCC/PDC room.
- Repaired # 1, # 2 and #3 roll up door at the truck tipper.
- Had vendor on site to evaluate ZDS system corrosion / painting issues.
- Replaced sensor on reclaimer luffing encoder.
- IC/E techs completed 8-month battery PM.
- Filter press work orders for repairs completed.
- Completed stairs at filter press.
- Had vendor complete repairs to both Wagners.
- Had mechanics replace 3 return idlers on belt # 7.
- IC/E return heaters on all eye wash stations back on.
- IC/E techs checked heaters in water building.
- IC/E working on all 3 Bay doors, replacing breaks .
- Met with 3 different vendors.
- Weld repaired leak on crystallizer tank line.
- Repaired hydraulic oil hose on FGR lube system.
- Changed all bags on ash silo vent dust system.
- Started Arc-Flash training for all NAES employees.
- Started wash water line in fuel yard tower # 1.
- Scheduled work orders for October: 275. Completed work orders: 150.

11. ADMINISTRATION

Staffing:

There were three Fuel Yard positions open as of October 31, 2016, which will not be filled immediately.

Temporary Staffing:

There was no temporary labor on site in October.

Statistics:

- Payroll: 76 Payroll records processed.
- Accounts Payable: 148 invoices processed*, 77 payments processed.
*October invoices will continue to be processed through November, 2016.
- Procurement: 87 Requisitions reviewed, 87 Purchase Orders generated.
- Overtime: 14.69% of total hours.
- 2016 annual overtime: 8.03% of total hours.

Spare Parts Inventory Value: \$ ████████████████████

