

EXHIBIT R28

**IN THE CIRCUIT COURT OF THE EIGHTH JUDICIAL
CIRCUIT IN AND FOR ALACHUA COUNTY, FLORIDA**

WOOD RESOURCE RECOVERY, LLC,
a Florida Limited Liability Company,

Plaintiff/Counter-Defendant,

vs.

CASE NO.: 2015-CA-001218
DIVISION: K

GAINESVILLE RENEWABLE ENERGY
CENTER, LLC, a Delaware Limited Liability
Company,

Defendant/Counter-Plaintiff.

_____ /

FINAL JUDGMENT

This matter came before this Court for trial on Plaintiff/Counter-Defendant Wood Resource Recovery, LLC's (WRR) complaint and Defendant/Counter-Plaintiff Gainesville Renewable Energy Center, LLC's (GREC) counterclaim for damages associated with the parties' biomass supply agreement. After an eight (8) day bench trial in May 2016, having heard the testimony and weighing the evidence, based on the entire record the Court finds as follows:

I. Findings of Fact

a. Background

1. GREC entered into a thirty (30) year power purchase agreement (PPA) with Gainesville Regional Utilities (GRU) on April 29, 2009, to operate a biomass-fueled energy facility (the Plant).

2. In order to secure construction financing for the Plant, GREC's lenders required that a substantial portion of the biomass fuel be secured by a long term contract or contracts.

3. On September 21, 2010, WRR and GREC entered into a long-term biomass supply agreement. That agreement was supplanted by an amended biomass supply agreement dated June 8, 2011 (the Agreement) that was to govern the parties until December 31, 2020.

4. The Agreement required WRR to deliver to the Plant “clean woody biomass material” or “clean woody biomass waste” derived from urban land use.

5. The relevant contractual specifications for biomass are contained in Exhibit A of the Agreement.¹

6. The Agreement establishes WRR’s minimum and maximum monthly volumes of sales to GREC – 22,000 and 24,000 dry tons, respectively in Exhibit B.

7. Exhibit C to the Agreement sets forth the formulas for compensating WRR, adjusting compensation for moisture and ash content in WRR’s biomass, and diesel fuel costs.

8. The Agreement also specifies Events of Default (§14), Early Termination (§15), and an Early Termination Payment (§16), all of which govern this dispute.

9. Finally, the Agreement sets forth certain representations and warranties applicable to this matter (§10c).

10. In order to perform under the Agreement, WRR began stockpiling wood, and by May 2013 had stockpiled 124,000 dry tons of wood; this represents an amount that could supply GREC for 6 months at the maximum contract volume.

11. WRR also acquired heavy equipment and machinery for the contract; hired workers; leased stockyards; and broke ground on needed facilities.

12. GREC’s agent, Bioresource Management, Inc. (BRM) assisted WRR to acquire

¹ The specifications pertaining to agreements that GREC had with other third parties (non-parties to this suit) were admitted at trial over GREC’s objection. However, upon further consideration, the Court has not considered the specifications contained in GREC’s agreements with third parties in rendering this decision.

municipal yard waste contracts and assisted WRR with creating WRR's Business Development Plan that GREC used, in part, to acquire financing for the Plant.

13. Having incurred large costs relating to the pre-contract stockpiling, WRR requested that GREC begin to accept biomass before the scheduled contract date in June 2013. GREC agreed and WRR began supplying biomass to the plant in April 2013.

14. At plant start-up, WRR had contracts to haul and process yard waste from several cities and counties. The Agreement that WRR entered into with GREC represented a major shift, i.e. a "sea change", in WRR's business model and allowed WRR to offer lower fees on the front end to attract more volume of raw material and also to make a fee, to create a profit, on the back end of the contract, by delivering the biomass to the Plant.

15. WRR owner, Bill Gaston, testified that WRR planned to meet its delivery requirements by delivering biomass from three sources – urban yard waste, WRR controlled/owned sites, and third-party owned sites. Urban yard waste was estimated to provide 30 percent of WRR's biomass supply.

b. Chlorine and Yard Waste

16. Prior to going on-line, GREC was required to obtain air permits for the Plant from the Florida Department of Environmental Protection ("FDEP"). The air permit issued to the Plant prohibited the burning of *any* plastic despite the fact that the Agreement WRR entered into with GREC allowed WRR to bring biomass to the Plant that included foreign material (*i.e.*, plastic) at a rate of 2 lbs. per ton (or about 56 lbs. per truckload).

17. The FDEP air permit issued to the Plant also limited types of emissions from GREC's plant which, in turn, limited the amount of chlorine and fluorine to be tolerated in the biomass. However, GREC's Agreement with WRR contained no limitations on the amount of chlorine or fluorine that could be contained in the biomass product brought to GREC by WRR.

18. On May 1, 2013, BRM, as GREC's agent, forbade WRR from entering into municipal yard waste contracts based on a concern that yard waste contained high levels of chlorine. BRM informed WRR that none of the yard waste sampled had passed GREC's chlorine sampling/inspection and BRM informed WRR to "seriously re-think bidding on yard waste contracts based on bringing it to [GREC]" and instructed WRR to "plan on life without yard waste".

19. Mr. Gaston, WRR's president, testified that he left the May 1, 2013 meeting with BRM in "shock." Furthermore, Mr. Gaston understood unequivocally that WRR would need to attempt to replace 200,000 green tons of volume in order to meet the requirements of the contract due to GREC's unilateral elimination of yard waste from WRR's fuel mix.

20. At this meeting on May 1, 2013, Richard Schroeder of BRM, further told WRR that GREC would default on the Agreement before accepting yard waste.

21. GREC had initially learned of high chlorine content in yard waste and brush during its sampling and testing in August 2012. Internal emails in April 2013 discussed the possibility of having to renegotiate the contract with WRR because of the issue. However, GREC failed to inform WRR of the potential chlorine issue for many months. After GREC passed its FDEP emissions test in December 2013, GREC knew that chlorine was a false alarm, but GREC failed to communicate that fact to WRR and failed to inform WRR that yard waste was an acceptable form of biomass material to bring to the Plant.

22. GREC's prohibition on WRR entering into any more yard waste contracts was unequivocal and would be understood by any reasonable person to mean mandatory forbearance.

23. This unilateral prohibition on yard waste by GREC, of a biomass material representing a significant portion of WRR's product, was a material breach of the Agreement that substantially impaired the value of the entire contract.

24. GREC's prohibition on yard waste precluded WRR from obtaining major sources of material to meet the contract volumes required since yard waste contracts come up for public bid only every few years. The fact that GREC allowed WRR to deliver limited loads of yard waste for which WRR was obligated to accept delivery prior to the prohibition in order to mitigate damages does not alleviate the material breach.

c. "Screen Everything" Directive

25. On September 9, 2013 GREC ordered WRR to "screen everything" before deliveries, regardless of whether it met WRR's contract specifications because of GREC's perceived problems associated with what GREC believed to be "fines" in WRR's biomass product.

26. WRR acquired additional screening machinery and screened all biomass for several weeks at additional cost, time, and lost product to WRR. Everything (even those materials in compliance with the contract specifications) was screened by WRR, upon GREC's unilateral demand. This continued until Mr. Gaston observed sawdust being delivered to GREC. When Mr. Gaston inquired, BRM then advised WRR that the fuel-handling and operating problems at the plant were not related to fines in the fuel, but to problems associated with ash. At that point, WRR returned to screening only those materials that it expected to screen under its contract specifications.

27. GREC's unilateral screening directive removed 30-50% of the volume of WRR's biomass fuel, raised production costs and disposal costs, and eliminated any revenue for the lost material.

28. This addition of contract terms, unilaterally, at the expense of WRR was a breach of the contract by GREC.

d. “No Plastic”

29. On September 9, 2013, GREC, through BRM, prohibited WRR from delivering material containing *any* plastic “for now,” despite WRR’s contract allowance of up to 2 lbs. per ton (approximately 56 lbs per truckload) of foreign material, including plastic.

30. GREC and its plant managers were concerned about FDEP inspectors seeing plastic in the fuel yard and with the potential air permit violations. GREC’s internal emails noted that “[WRR’s] got contractual latitude to have several pounds of plastic in each load, but we have DEP, etc. here daily/weekly and don’t want to see any plastic in the yard.” GREC and GREC’s agent, BRM, admitted at trial that this “no plastic” directive was inconsistent with the contract’s terms and that a “no plastic” standard is not a realistic expectation in the industry when it comes to urban yard waste. However, GREC never retracted its ban on plastics.

31. The September 9, 2013 “no plastics” directive meant that WRR could no longer sell the yard waste to GREC that WRR was already contractually bound to accept from its suppliers. This development, together with GREC’s May 1, 2013 directive aimed at future streams of yard waste, eliminated 1/3 of WRR’s expected supply of biomass. The resulting adverse economic consequences for WRR increased its costs and undermined the economic basis of the contract.

32. This unilateral prohibition on all plastic by GREC to WRR was a material breach of the Agreement that substantially impaired the value of the entire contract.

33. Although both parties agree that of the 15,600 loads WRR delivered to the Plant from April 2013 through April 2015, only 16 loads were rejected and a BRM agent testified that he only turned one truck away for excessive plastic, the Court finds credible Bill Gaston’s explanation that he could not deliver material containing plastic to GREC so he shipped yard waste elsewhere except for a limited number of loads he sent to GREC to “mitigate his damages”.

e. Fuel-Handling System

34. Design problems with the Plant's fuel handling system made the Plant unable to efficiently and effectively handle WRR's ground biomass, even though the ground biomass provided was within contract specifications.

35. These problems prevented WRR from being able to timely deliver the 122,000 dry tons of wood stockpiled at its yards. Although GREC attempted at trial to demonstrate that WRR's biomass material was the cause of the fuel handling system's problems with processing ground wood, there was no competent, substantial evidence to support GREC's claims. There was abundant, competent, substantial evidence to demonstrate that the Plant was not designed and/or constructed in a manner to efficiently and consistently handle the ground biomass, within the contract specifications, that was delivered to the Plant by WRR.

36. For example, the Fuel Procurement Manager of GREC noted on October 2, 2013, after modifications had already been made to the fuel handling system, that the system is "routinely getting plugged up on ordinary material that meets the spec."

37. GREC's failure to provide a Plant that could adequately process the ground biomass material, within contract specifications, that was provided by WRR to the Plant constituted a material breach of the contract.

f. Limited to One Delivery Bay/Lane

38. Additionally, for a significant period of time, WRR was limited to one of the three delivery lanes at the Plant, a situation that GREC's agent said "looks dumb . . . when the other two bays are empty." And, during this period, GREC further frustrated WRR's ability to deliver biomass by refusing to allow WRR to use the self-unloading mechanisms on its trucks. Some WRR trucks were sent away without unloading due to Plant issues.

39. These additional limitations/restrictions on WRR, by GREC, impacted WRR's ability to perform under the Agreement.

g. Limitation on "agricultural" materials

40. In 2014, WRR tried to replace the lost 1/3 of its volume with alternate materials, including land-clearing debris. The Agreement permits land-clearing debris and prohibits delivery of materials derived from agricultural unless mutually agreed prior to delivery. "Materials derived from agriculture" is not defined by the contract. However, a BRM Agent testified that "materials derived from agricultural operations" are materials left over after a farmer grows something.

41. The contract contains no provisions prohibiting woody biomass taken from land-clearing operations on agriculturally zoned property. It prohibits (unless agreed) only non-woody biomass materials derived from agricultural operations such as peanut hulls and corn husks.

42. GREC unilaterally interpreted the contract to prohibit biomass gathered from any land zoned or classified by the property appraiser as "Agricultural".

43. This additional limitation/restriction on WRR, by GREC, impacted WRR's ability to perform under the contract.

h. Contract Termination

44. WRR demanded compensation for past damages in July 2014, and on August 29, 2014 served its notice of default under ¶14(b) of the contract. Bill Gaston's testimony regarding GREC's proposed cooperation with WRR to attempt to address the loss of volume and other damages to WRR was credible. Mr. Gaston testified that GREC's actions of proposed cooperation for more than a year were a pretext for attempting to induce contract concessions from WRR.

45. Due to the combination of actions and breaches by GREC (discussed above) along with WRR's willingness and ability to perform the minimum contract volumes under the Agreement,

the Court finds that WRR was justified in terminating the contract under ¶15's Early Termination provision on April 21, 2015.

46. GREC is the "Defaulting Party" as defined in the parties' Agreement and therefore WRR was entitled to terminate the Agreement and is entitled to an "Early Termination Payment".

47. WRR has demonstrated that GREC's actions were a substantial factor in causing WRR's lost profits and has demonstrated lost profits with a reasonable degree of certainty, relating to WRR's Early Termination Payment as comprising three figures: (i) past damages, (ii) future damages, and (iii) interest.

i. Past Damages

48. Mr. Morrison's past damages calculation includes four components: the number of tons WRR would have sold to GREC but for GREC's actions; the actual number of tons WRR produced and sold; the price at which lost sales should be valued, and the avoided costs that WRR did not have to spend because WRR did not produce and sell that additional tonnage. To calculate avoided costs, Mr. Morrison looked at the cost WRR incurred to accumulate and process 122,000 dry tons of biomass that it would deliver to GREC. Other factors Mr. Morrison considered in this calculation of avoided costs include revenues that WRR received, such as tipping fees, as it obtained biomass for the GREC contract. These incremental revenues offset WRR's cost of producing biomass. Mr. Morrison concluded that WRR avoided costs from not being able to process and deliver the minimum quantities of biomass from April 2013 to April 2015 at \$20.43 per dry ton, net of incremental revenues. As of the date of Mr. Morrison's revised report, he calculated WRR's past damages as ranging from \$3,359,000 to \$4,333,000, based on the minimum and maximum monthly tonnages, but Mr. Morrison reduced these amounts by \$1.7 million during his trial testimony to account for mitigating sales that WRR made to customers other than GREC.

To get to the \$20.43 per dry ton figure of avoided costs, Mr. Morrison used a method called the differential method, or the “before and after” method, which looks at the costs before initiation of the contract and the costs after initiation of the contract. In a typical case, the change in costs is examined to determine which of those costs relate to the contract and therefore should be deducted as avoided costs. But because WRR changed its business process so dramatically (i.e. “a sea change”) to undertake the GREC contract, the data before the contract initiation is not representative. Therefore, Mr. Morrison looked at a period of time from July through September 2013, during which WRR was performing under the contract to determine what the costs would have been to deliver the biomass product on a stable, normalized basis. The time period after September 2013 was excluded because it was after a breach by GREC and not during a time period where normal operations of the contract could occur.

49. The Court finds that WRR has demonstrated lost profits within a reasonable degree of certainty concerning minimum monthly tonnages relating to past damages in the amount of \$1,659,000.

j. Future Damages

50. Plaintiff’s Expert, Mr. Morrison, performed several calculations and analyses, resulting in largely varying damages calculations. He made additional “adjustments” and revised his damages calculation, again, during his trial testimony. Considering Paragraph 16 of the Agreement and considering the testimony of Mr. Morrison, Mr. Cenatempo (Defendant’s expert), and Mr. Buchanan (Plaintiff’s rebuttal expert), the Court has determined the Plaintiff’s future damages to be: $\$829,500 \times 5 = \$4,147,500$. To determine the present value of WRR’s future damages, the Court accepts Mr. Morrison’s discounted rate of 10% considering the nature and length of the fee contract and the associated risk of the same. Applying a 10% discount rate to \$4,147,500 over a five (5) year

period, the Court finds WRR's present value of future damages to be \$2,575,271.19.

k. Loss on liquidation damages

51. There was testimony that WRR invested significant amounts of money to purchase equipment that WRR expected to use throughout the contract period and that WRR financed virtually all of that equipment with debt. After termination of the contract, WRR argued that it had equipment, purchased to be used on the GREC contract, that it could no longer use. However, there was testimony by Steven Tatro, WRR's own appraiser that the equipment (or some portion of the equipment) was in use and being utilized on other contracts at the time of his appraisal. WRR has not demonstrated by the greater weight of the evidence that it is entitled to damages associated with liquidation of its equipment as a result of the terminated contract and the Court does not award WRR any loss on liquidation damages.

l. Interest

52. The contract includes an early termination clause that provides for applying interest to the early termination payment at a rate of 2% over the prime lending rate per the Wall Street Journal. That interest rate was 5.25% for the period of April 21 through December 16, 2015, and 5.5% for the period of December 17, 2015 through June 23, 2016. Thus, the accrued interest is approximately \$231,614.63 under the contract minimum delivery volume, through June 23, 2016.

53. Based on the evidence, and WRR's demonstrated readiness, willingness, and ability to perform the minimum delivery requirements under the contract, WRR's damages are as follows:

Past Damages of	\$ 1,659,000.00
Future Damages of	\$ 2,575,271.19
Interest through June 23, 2016 of	\$ 231,614.63
Total through June 23, 2016	\$ 4,465,885.82

m. GREC's Counterclaim

54. GREC sought damages from WRR for costs GREC incurred relating to purported ash problems that GREC believed lead to the shutdown of the Plant in August 2013. GREC has failed to demonstrate that the August 2013 Plant shutdown was caused by WRR's deliveries of biomass product and/or the ash content contained in WRR's delivered product.

55. In 2013, at the time of the alleged ash problems that caused the shutdown, GREC's records of delivery samples taken from WRR deliveries show average ash content for deliveries at 5.40%. This figure is below WRR's 6% contractual limit.

56. Regardless of any contractual ash limits, the evidence at trial did not show that WRR's biomass caused the boiler's ash problem. GREC's admissions and other evidence point to a faulty hose and valve at the Plant as the cause of the problem. Further, no evidence shows that the specific biomass product supplied by WRR – as opposed to the biomass product from 10-12 other suppliers – caused the alleged problem, because GREC comingled the biomass products from all suppliers into its main fuel pile.

57. GREC also claims damages from WRR for allegedly having to extend fuel yard hours from 10-12 hours a day in order to process WRR's deliveries. For these extended hours, GREC seeks damages of \$12,458. GREC's own agent, an employee of BRM, testified that the extended hours theory "does not have merit".

58. GREC has failed to demonstrate that a breach of the contract, or any action by WRR, caused GREC to extend their work hours.

59. GREC also sought the additional costs of hiring a quality control manager and installing in-house ash-testing equipment after GREC's off-site lab was found, by GREC, to provide untimely, and in some cases, questionable/unreliable results to GREC. For these claims, GREC seeks

\$89,000. There is no evidence in the record to demonstrate that GREC is entitled to these damages or under what theory of liability GREC would be entitled to shift its cost of doing business to a contracted supplier.

n. Attorney's Fees:

60. WRR is entitled to reasonable attorney's fees and costs, pursuant to the Agreement.

II. Conclusion:

It is ADJUDGED that Plaintiff Wood Resource Recovery, LLC 10606 SR 121 North, Gainesville, FL 32653 shall recover from Defendant Gainesville Renewable Energy Center, LLC, the sum of \$4,234,271.19 plus prejudgment interest in the amount of \$231,614.63 for a total of \$4,465,885.82. This shall bear interest at a rate of 4.78 percent per year, for which let execution issue.

On its counterclaim, it is ADJUDGED that Counter-Plaintiff, GREC shall take nothing by the action and that Counter-Defendant WRR, LLC shall go hence without day.

DONE and ORDERED in Gainesville, Alachua County, Florida this 23 day of June, 2016.


MONICA J. BRASINGTON, Circuit Judge

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that copies of the foregoing have been furnished by electronic service on this 23rd day of June, 2016 to the following:

D. Kent Safriet, Esq., kents@hgslaw.com, mandyf@hgslaw.com

Mohammad O. Jazil, Esq., mohammadj@hgslaw.com

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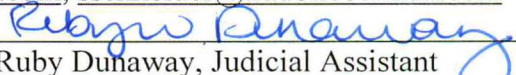

Ruby Duhaway, Judicial Assistant

EXHIBIT R29

March 3, 2016

Mr. Tom Brown
Chief Operations Officer
Gainesville Regional Utilities
301 SE 4th Avenue
Gainesville, FL 32614-7117

Re: Good faith, non-binding scheduling projection under LGIA Section 9.6.1.2

Dear Mr. Brown:

Through this letter, GREC provides you with a good faith, non-binding notification of GREC's currently-projected rolling twenty-four month planned maintenance schedule. GREC provides this notice for long-range planning purposes pursuant to Section 9.6.1.2 of the Large Generator Interconnection Agreement between GRU and GREC and good utility practice. This letter and the information contained herein are not notice under the Power Purchase Agreement.

Currently, GREC does not plan to take a planned maintenance outage in calendar year 2017, and anticipates a three-week planned maintenance outage in April 2018. As you know, a twenty-four month forecast seeks to project actions that are far in the future and that are subject to change based on future developments, including, for example, changes in operational scheduling or other actions by GRU. As provided in Section 9.6.1.2, GREC shall update its planned maintenance schedules from time to time as necessary.

Thank you.

Sincerely,



Leonard J. Fagan
Vice President of Engineering
GREC Asset Manager

LJF/ctw

Cc: A Morales
E Bielarski
R Abel

EXHIBIT R30

Morgan Lewis

Andrew C. Phelan

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June 20, 2016

Paula W. Hinton, Esq.
Winston & Strawn LLP
111 Louisiana Street
25th Floor
Houston, TX 77002

Re: GRU's Request for Performance Assurances under PPA §25.1.5

Dear Ms. Hinton:

We are in receipt of your letter dated May 24, 2016, which fails to satisfy the notice requirements under the Power Purchase Agreement (PPA). Your letter fails to state any basis to claim "Material Adverse Change" and demand access to confidential and proprietary financial information under the guise of alleged "performance assurances" under the PPA.

A "Material Adverse Change" under Schedule 1 of the PPA requires a "material adverse change on (i) the business, assets, operation, or financial condition of the Facility and Seller taken as a whole, or (ii) the ability of Seller to pay or perform its material obligations under this Agreement in accordance with the terms hereof or to own and operate the Facility." Nothing in your May 24 letter supports the assertion of a Material Adverse Change. No such change has occurred nor is such a change suggested by GREC's letters dated April 11 and April 18. GREC did not allege any "financial distress." Rather, GREC's April letters notified GRU that GRU's misconduct has prevented GREC from refinancing existing project loans to lower interest rates, which has denied GREC the resulting benefits of refinancing. The wrongful denial of *benefits* to GREC results in compensable damages, but does not suggest any impact upon GREC's ongoing operations or ability to perform.

For these reasons, GRU has failed properly to assert or notice any Material Adverse Change. Also please note that in its Amended Complaint, GREC has requested that the Arbitrator render declaratory confirmation of GREC's position on this matter.

Sincerely,



Andrew C. Phelan

ACP/pjb

cc: Siobhan E. Mee, Esq.

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EXHIBIT R31

September 3, 2015

Mr. John Stanton
Assistant General Manager, Energy Supply
Gainesville Regional Utilities
301 S.E. 4th Avenue
Gainesville, FL 32614-7117

Subject: Cold Startup Time to Return to Service

Dear John:

On Monday, August 24, 2015 Eric Walters called Steve Marsh and requested that GREC provide guidance with respect to expected start-up time for the GREC facility (the "Facility") from cold standby status. We provide the estimates and information in this letter for your planning purposes only. Nothing in this letter is to be construed as binding upon GREC or deemed to modify the Power Purchase Agreement or the Operating Procedures in any way.

Estimated return to service time for the Facility from a cold standby status is a function of various items, including the length of time that the Facility has been in cold standby. Based on Good Utility Practice, including ongoing EPRI (Electric Power Research Institute) research and guidance, and the advice of water treatment providers and our boiler supplier, we have established that after 21 days in cold standby status more extensive layup and preservation procedures must be implemented which would lengthen the time required for a return to service. For example, for the period of 21 days or less, the boiler would remain full of treated water with the water chemistry properly maintained. Periods greater than 21 days in cold standby would require a long term layup procedure, which could include, for example, the boiler being drained with a nitrogen purge as well as draining the condenser hotwell and maintaining dry purge air on the STG.

We estimate that (a) approximately 20 hours from notice from GRU will be required for a return to service from a cold standby of 21 days or less, and (b) approximately 35 hours from notice from GRU will be required for a return to service from a cold standby of greater than 21 days. Please note these are reasonable estimates only and are subject to GRU's cooperation and adjustment based on operating experience. For example, these return to service estimates assume that required natural gas is supplied by GRU, that GRU has cooperated reasonably with GREC to allow GREC to properly manage its fuel supply, and that, when GRU places GREC on cold standby status, that GRU complies with Good Utility Practice, including by providing timely estimates for how long GREC will be in that status and as much notice as possible of an expected need to start up.



We have attached some typical startups that represent a normal cold start showing an approximately 20 hour period and a time line showing the activities of the 21 day or longer approximate 35 hour startup period.

Sincerely,

A handwritten signature in black ink, appearing to read "Leonard J. Fagan".

Leonard J. Fagan
Vice President of Engineering
GREC Project Manager

LJF/kh

cc: Eric Walter
A. Morales
R. Abel

GREC Start Up Time from Cold Standby Back Up and Time Line

The plant operator NAES has reviewed the two start up scenarios from cold standby, one being a start up of less than 21 days and the other being greater than or equal to 21 days with the summary as follows:

For a shutdown of less than 21 days, we have three examples of a straightforward startup from a cold state. One required 18 hours, and the other two required 20 hours each. Therefore, we would suggest that a good approximation for such a startup duration is 20 hours. That duration is from the initial boiler line-up for filling to unit load at 70 MW net output.

We have identified three startups that are in the range as follows:

- June 21, 2014 began around 09:06 and we were on AGC at 04:06 June 22. (~18 hrs)
- January 19, 2015 began at 21:13 and we were on AGC at 17:19 January 20. (~20 hrs)
- May 8, 2015 began at 12:30 and we were on AGC at 01:19 May 9th. (~20 hrs)

A shutdown equal to or greater than 21 days requires the boiler be laid up, or preserved in a dry state with nitrogen gas to prevent corrosion. This condition requires that certain components of the plant be drained that are not drained under the shorter shutdown scenario. In order to fill these components, and produce the additional demineralize water necessary to fill them, the duration of a startup process must be extended. An approximate schedule of such a startup follows, with hours shown preceding generation at 70 MW net output:

- -35 Start make-up water systems to fill Demin storage tank. Start M/U Water pumps to fill Condenser
- -31 Start Condensate pumps. Begin filling DA Feedwater tank.
- -23.5 Start-up Circ. Water and Closed Cooling water systems
- -23 Start filling Boiler
- -19 Start fans and begin furnace purge
- -18.5 First Start-up Burner in.
- -16 Shut drum vent
- -15 Shut vents and drains
- -10.5 Hogging ejector in, Vacuum breaker shut, Gland steam sys lined up
- -8.5 Fill Fuel bins
- -7 Begin solid fuel feed
- -5 Roll TG
- -3 Sync TG
- -2 Line up extractions
- -1 All extractions in
- 0 @ 70nMW AGC on

Please keep in mind that we haven't performed a startup when returning from a long-term layup scenario, so these durations and milestones are our best estimates. We will refine them with experience.

EXHIBIT R32



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When to Change Your Oil



Is It Mileage or Time That Determines When to Change Your Oil?

The rule of thumb for oil changes is every 5000 -7500 miles, depending on the manufacturer's recommendation. But what if you do not drive more than 7500 miles for the entire year? If you use the car only for short trips on city streets, particularly in cold weather, you probably should have the oil changed every three months.

Such driving, in which the engine never reaches its proper operating temperature, can cause condensation of water inside the crankcase and dilution of the oil by gasoline.

Water contamination of the oil occurs when moist air is drawn into the crankcase and condenses after the engine is turned off. Frequent short trips increase the amount of condensation.

The water in the crankcase is not harmful, but it can combine with sulfur, a byproduct of combustion, to form sulfurous acid, a weak acid that breaks down the lubricating qualities of the oil.

The fuel contamination is a separate problem. In the carburetors of older engines and even some fuel-injected engines, a richer mix of fuel is sent to the engine on cold starts. Also on cold starts, some gasoline seeps down the cylinder walls into the crankcase. A small amount of gasoline contamination is not harmful, but larger amounts dilute the oil and lower the viscosity-again compromising the oil's lubricating qualities.

Another problem associated with driving a car only on short trips is that engine deposits tend to increase because the combustion chamber never heats up enough to burn off hard carbon that forms on the piston head and valves. Eventually, this can cause engine ping, because the deposits create localized hot spots inside the combustion chamber that cause the fuel to burn unevenly.

When you drive a car a long distance, the engine, coolant and oil all get quite hot and these contaminants are boiled out of the oil and soot does not form as quickly. If the weather is cold, you need to drive a lot farther, certainly more than 10 miles at freeway speeds, to reach operating temperature.

If you drive mostly on long but infrequent trips, there is nothing wrong with changing your oil every six months or even every year, according to Texaco oil experts.

The final consideration is your car warranty. If the manufacturer specifically requires you to change the oil based on elapsed time, it would probably be worth doing so until the warranty expires. If the engine needed a repair covered under the warranty, a dealer might balk at honoring a claim if the oil changes did not follow the manufacturer's recommendations.



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