Progress Energy

May 26, 2010

VIA HAND DELIVERY

Ms. Ann Cole, Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: *Petition for approval of Letter Agreement to Negotiated Purchase Power Contract with Pinellas County Resource Recovery by Progress Energy Florida, Inc.*; Docket No. 090499-EQ

Dear Ms. Cole:

Please find enclosed for filing on behalf of Progress Energy Florida, Inc. ("PEF") and Pinellas County Resource Recovery ("Pinellas County") the original and five (5) copies of its responses to Staff's Data Request No. 5 in the above referenced docket.

Thank you for your assistance in this matter. Please call me at (727) 820-5184 should you have any questions.

Sincerely,

John T. Burnett LMS

John T. Burnett

JTB/lms

COM
APA
ECR 1
GCL 1
RAD 3
SSC
ADM
OPC
CLK

PROGRESS ENERGY FLORIDA, INC.'S RESPONSES TO STAFF DATA REQUEST NO. 5
DOCKET NO. 090499-EQ

Q1. Please provide a schedule identifying and describing the maintenance to be performed on the Pinellas County Resource Recovery Facility. Also, please include documentation as to when this maintenance schedule was finalized and approved by the County.

Answer: Attached is a copy of Veolia's electrical generation and maintenance outage projections for 2009 (dated September 9, 2008) showing that construction work was planned for the fall of 2009, and for 2010 (dated September 17, 2009) showing the planned outage in the spring of 2010. Veolia is responsible for planning and scheduling maintenance at the WTE; the scheduling does not require County approval as long as it is in compliance with contract conditions. A portion of the work originally planned for the fall of 2009 (boiler tube replacement) was performed in the spring of 2009 due to the increased frequency of tube failures. Also included, within the document titled "Section 4 – Time Schedule and Delay Liquidated Damages," is the schedule for the boiler tube / grate replacement project from the County's contract with Veolia. This contract required that Veolia complete refurbishment of all three boilers by April 2010, thus requiring that the third boiler be completed in early spring, 2010 (See Attachment 1).

Also included in "Attachment 1" are copies of the schedule of work for the fall 2009 outage which details what maintenance activities were performed and the schedule for that work. The fall outage included regular outage testing and maintenance, boiler refurbishment work, and some additional (non-routine) work required under the operating agreement with the County (SDA cone replacement and ash conveyor replacement).

Q2. Please provide supporting documentation to verify any discussions held with David Gammon concerning the use of portable generators, as stated in the County's letter to Mr. Gammon dated April 23, 2010.

Answer: Attached are excerpts from Mr. Koon's monthly work log documenting telephone conversations with David Gammon in regards to our plan to use portable generators to serve plant parasitic loads, so as to avoid the Facility's capacity factor falling below 70 percent (Attachment 2). Mr. Koon serves as a primary contact for the County in communications with Progress Energy. Once PEF presented the option to reduce capacity pursuant to the letter agreement that is the subject of the PSC docket, there were no further communications related to the portable generators as this option was eliminated in favor of the capacity reduction.

Also included in "Attachment 2" are excerpts from Mr. Koon's work logs for February 2009. Portable generators were used for facility power from March 23 through March 28, 2009 when the Pinellas County RRF was isolated from the grid due to work being performed by PEF. As was done with the recently completed outage, the County notified PEF of our intent to bring in portable generators for in-house power supply. Although the power needs were considerably less during this period, this project demonstrates successful implementation of using portable generators for in-house supply, and was one of the factors that lead us to consider this approach for the fall outage period.

Q3. Please provide supporting documentation to verify that the County has "completed all planning and engineering for the County's portable-generator plan, and that the County was prepared to implement that alternate approach when PEF suggested the option of a temporary and partial curtailment," as stated in the County's letter to Mr. Gammon dated April 23, 2010.

Answer: Documentation that the County had completed the planning and engineering for use of portable generators is included in Attachment 3.

Q4. Please provide a timeline showing when the County first studied the idea of using portable generators up through the decision to move forward with the portable generators.

Answer: Please see Attachment 2.

Q5. Please provide supporting documentation between the County and Ring Power concerning the lease of the portable generators and the commitment that the generators could be in place in order to meet the schedule for the maintenance activities described in question 1.

Answer: This data is included with Attachment 3.

Q6. Please provide supporting documentation that the letter agreement between PEF and the County would "cost Pinellas County as much or more than the portable generator plan would have cost," as stated in the County's letter to Mr. Gammon dated April 23, 2010.

Answer: The monthly cost (in reduced revenues from PEF) associated with the partial curtailment was $865,050.

The monthly cost of the portable generator program was estimated to be $834,200.

	Each Unit	Total	
Generator Rental	$ 44,000	$176,000	
Fuel Tank	$ 1,000	$ 4,000	
Transfer Switch	$ 2,500	$ 10,000	
Power Cable	$ 38,400	$ 38,400	Only one required
PM Service	$ 2,500	$ 10,000	
Fuel	$148,950	$595,800	130 gph @ $1.54 gal
		$834,200	$865,050 partial curtailment

Fuel costs would have varied depending on whether all four generators needed to run continuously to meet in-house power needs; costs above assume continuous operation.

As shown, there is a nominal difference of $30,000 month between the two options based on monthly costs.

One-time charges totaling $284,570 include:

- Freight charges - $10,000 ($5,000 each way),
- Ring Power technician for start up services - $2,800,
- Purchase of Switchgear equipment - $164,000, and
- Engineering, material and installation costs - $107,770.

The County intended to put the generators into service on or about August 15. This was a full month prior to the start of the partial curtailment period. However, based on actual generation figures with parasitic load covered by the portable generators, the County would have been able to discontinue use of the portable generators in mid-November and still maintain a 70% rolling average capacity. The total cost for the partial curtailment was **$2,610,033**. The estimated cost for the portable generators, based on 4 months of operation with all four generators running continuously (August 15 - November 15) and including one time charges, would have been $3,621,370. This increased cost would have been more than offset by increased electric revenue (based on all WTE generation being sold to PEF rather than some of the generation being required for parasitic load). Given a conservative parasitic load of 10 MW/hour, the additional 240 MWH per day at $26/MW (actual pricing during this time period ranged from $26.23/MW to $30.71/MW) would have generated $187,200 additional revenue per month, or $748,800 over the duration of the program, to the County, resulting in a net cost of **$2,872,570**.

Q7. The proposal from Ring Power dated August 4, 2009, states that the pricing is based on a minimum 6 month rental. Please provide supporting documentation of how the pricing would be affected if the rental period was less than 6 months. Specifically, what would be the pricing if the rental period were the same as the actual partial curtailment period?

Answer: Please see clarifying correspondence from Ring Power included with Attachment 3.

Q8. The proposal from Ring Power dated August 4, 2009, shows a total rental price of $228,400 per month for four units. Please use the pricing proposal from Ring Power to calculate the monthly and total cost of the portable generator plan.

Answer: Please see the response to Question 6.

Q9. The information previously provided by the County shows the portable generators operating at capacity factors approaching 99%. Please provide supporting documentation from Ring Power that would verify such performance.

Answer: The County's generation estimates are based on a continuous output of 1.7 MW from the 2 MW (nameplate rating) generators, equivalent to an 85% capacity factor. Ring Power has provided documentation regarding expected availability of the portable generators (see Attachment 3). Additionally, the County was planning to rent five generators, four of which would have been in continuous use with the fifth generator available as a backup to cover scheduled maintenance or unscheduled downtime. The 99% capacity factor value was computed with reference to the continuous rated capacity of four generators, such that the result reflected high availability and performance as well as the fifth (spare) generator in the calculations.

Q10. Please provide any correspondence between the County and PEF concerning the interconnection of the portable generators.

Answer: There was no correspondence or documentation provided to PEF concerning the interconnection of the portable generators, since the decision was made to pursue a reduction in capacity pursuant to the letter agreement after the initial phone call to PEF. Had the County moved forward with the portable generator program, we would have timely provided all relevant information to PEF.

Attachment 1

Attachment 1

MW forecast for 2009 - documentation of the work schedule

MW forecast for 2010 - documentation of the work schedule

Construction Agreement schedule for Exhibit 2 - demonstrates overall time frame within which boiler refurbishment was to be completed

Fall 2009 outage scope of work - describes work for boiler refurbishment, as well as other maintenance work performed during the fall outage

Spring 2010 outage scope of work - describes work for boiler refurbishment, as well as other maintenance work performed during the spring outage

VEOLIA
ENVIRONMENTAL SERVICES

WASTE-TO-ENERGY
NORTH AMERICA

September 9, 2008

Kelsi Oswald
WTE Program Manager
Pinellas County Department of Solid Waste Operations
3095 114th Ave North
St. Petersburg, Florida 33716

RE: Pinellas County Resource Recovery Facility 2009 Net MW Forecast

Dear Mrs. Oswald,

The Electrical Power Purchase Agreement between Pinellas County Florida and Florida Power Corporation (FPC) Article 4.0 - Operating Conditions, requires an "estimate of the amount of electricity to be generated by the facility and delivered to FPC for each month of the following calendar year. Therefore, the following table lists the MW Forecast for the Pinellas County Resource Recovery Facility (PCRRF) for 2009.

Month	Net MWs
Jan 09	40,426
Feb 09	36,154
Mar 09	26,612
Apr 09	40,900
May 09	41,273
Jun 09	40,298
Jul 09	37,858
Aug 09	35,157
Sep 09	21,655
Oct 09	24,200
Nov 09	25,706
Dec 09	42,268
TOTAL	412,506

Veolia ES Pinellas, Inc.
2901 110th Avenue N.
St. Petersburg, Florida 33716
tel: 845-656-5642
www.VeoliaES.com
F:\Users\OPERATIONS\Progress Energy\Veolia Pinellas - Progress Net MW Forecast 2009 090408.doc

In addition, the tentatively 2009 outage schedule is provided below for your information:

Month	Unit	Start (date)	End (date)	Duration (days)	Reason
January					
February					
March	1	3/21/2009	3/24/2009	4	Common cold Iron
	2	3/14/2009	3/24/2009	11	Main yearly outage
	3	3/21/2009	3/31/2009	11	Main yearly outage
April					
May					
June					
July	2	7/6/2009	7/9/2009	4	Mini Cleaning and repair outage
August	1	8/22/2009	08/31//2009	10	Capital Improvement project
September	1	9/1/2009	9/30/2009	30	Capital Improvement project
October	1	10/1/2009	10/31/2009	31	Capital Improvement project
October	2	10/28/2009	10/31/2009	4	gallery belt and cleaning
October	3	10/28/2009	10/31/2009	4	gallery belt and cleaning
November	1	11/1/2009	11/19/2009	19	Capital Improvement project
December					
			Total (Boilers):	128	
			Total (TG1)	8	
			Total (TG2)	8	

Should you have any questions, please do not hesitate to contact me.

Best Regards,

Jayver Luque
Assistant Facility Manager

cc: Robert Hauser, PCU
Luke Koon, PCU
Veolia Management
Central File: Progress Energy 2009 Power Generation Reforecast

Veolia ES Pinellas, Inc.
2901 110th Avenue N.
St Petersburg, Florida 33716
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VEOLIA
ENVIRONMENTAL SERVICES

WASTE-TO-ENERGY
NORTH AMERICA

September 17, 2009

Pinellas County – Utilities Solid Waste
3095 – 114th Avenue North
St. Petersburg, Fl 33716

Attn: Kelsi Oswald
Waste to Energy Program Manager

Subj: Pinellas County Resource Recovery Facility 2010 Net MW Forecast

Dear Kelsi,

The Electrical Power Purchase Agreement between Pinellas County Florida and Florida Power Corporation (FPC) Article 4.0 - Operating Conditions, requires an "estimate of the amount of electricity to be generated by the facility and delivered to FPC for each month of the following calendar year. Therefore, the following table lists the MW Forecast for the Pinellas County Resource Recovery Facility (PCRRF) for 2010.

Month	Net MWs
Jan 10	36,174
Feb 10	23,838
Mar 10	25,557
Apr 10	38,100
May 10	37,270
Jun 10	36,577
Jul 10	35,238
Aug 10	32,466
Sep 10	35,147
Oct 10	36,319
Nov 10	33,420
Dec 10	38,139
TOTAL	408,245

Veolia ES Pinellas, Inc.
3001 110th Avenue N.
St. Petersburg, Florida 33716
tel: 727-572-9163
www.VeoliaES.com

In addition, the tentative 2010 outage schedule is provided below for your information:

Month	Unit	Start (date)	End (date)	Duration (days)	Reason
January	2	1/20/2010	1/31/2010	12	#2 Capital Improvement project
February	2	2/1/2010	2/28/2010	28	#2 Capital Improvement project
March	1	3/9/2010	3/12/2010	4	Common cold Iron
	2	3/1/2010	3/31/2010	31	#2 Capital Improvement project
	3	3/8/2010	3/11/2010	4	Common cold Iron
April	2	4/1/2010	4/8/2010	8	#2 Capital Improvement project
May	1	5/3/2010	5/6/2010	4	Boiler Wash
May	2	5/12/2010	5/15/2010	4	Boiler Wash
May	3	5/24/2010	5/27/2010	4	Boiler Wash
June					
July	1	7/11/2010	7/14/2010	4	Boiler Wash
July	2	7/26/2010	7/29/2010	4	Boiler Wash
August	3	8/2/2010	8/5/2010	4	Boiler Wash
September					
October	1	10/16/2009	10/28/2009	13	Fall Outage
November	2	11/5/2010	11/7/2010	3	Boiler wash
November	3	11/13/2009	11/27/2009	15	Fall Outage
December					
			Total (Boilers)	142	
			Total (TG1)	4	
			Total (TG2)	27	

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3001 110th Avenue N.
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Should you have any questions, please do not hesitate to call.

Sincerely yours,

Christopher J. Neu
Vice President – Operations, FL

cc: Tommy Murphy
Luke Koon, PCU
File

Veolia ES Pinellas, Inc.
3001 110th Avenue N.
St Petersburg, Florida 33716
tel: 727-572-9163
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Construction Agreement Schedule

Section 4
Time Schedule and Delay Liquidated Damages

4.1 General Requirements

Within ten (10) business days from the Capital Project Commencement Date for this Capital Project, the Contractor shall submit a labor loaded (including subcontractors) schedule, prior to commencement of work. At a minimum that schedule shall track the following activities for each project and each combustion unit:

1. Preliminary and final specifications
2. Preliminary and final design drawings
3. Procurement of equipment and parts
4. Procurement of materials
5. Installation of equipment
6. Installation of materials
7. Labor loading for installation activities
8. Testing
9. Start-ups
10. Demonstrations of performance
11. Acceptance

4.2 Schedule Guidelines

The Contractor's schedule shall generally follow the below schedule guidelines, the number of Days set forth below are for the Contractor's informational purposes and are the number of Days from the Capital Project Commencement Date for the Capital Project for each unit for this Exhibit and there are no damages associated with not completing the tasks within the timeframes noted below. Damages are associated with not having this Capital Project Accepted by the Scheduled Performance Date as set forth in Section 4.3 of this Exhibit 2. The Contractor is responsible for choosing the sequence of construction between the three combustion units.

4.2.1 Furnace Waterwall Replacements

1. Preliminary design shall be completed within 30 Days.

2. Requests for proposals shall be issued to bidders within 60 Days.

3. Final design shall be completed within 90 Days.

4. Purchase orders shall be issued for all equipment within 105 Days.

5. All equipment for the first combustion unit to be refurbished shall be received on site within 300 Days.

6. All equipment for the second combustion unit to be refurbished shall be received on site within 660 Days.

7. All equipment for the third combustion unit to be refurbished shall be received on site within 1020 Days.

8. All Work for the first combustion unit to be refurbished shall be completed and Accepted within 390 Days.

9. All Work for the second combustion unit to be refurbished shall be completed and Accepted within 780 Days.

10. All Work for the third combustion unit to be refurbished shall be completed and Accepted within 1170 Days.

4.2.2 Martin Stokers Reconditioning

1. Preliminary design shall be completed within 30 Days.

2. Requests for proposals shall be issued to bidders within 60 Days.

3. Final design shall be completed within 90 Days.

4. Purchase orders shall be issued for all equipment within 105 Days.

5. All equipment for the first combustion unit to be refurbished shall be received on site within 300 Days.

6. All equipment for the second combustion unit to be refurbished shall be received on site within 660 Days.

7. All equipment for the third combustion unit to be refurbished shall be received on site within 1020 Days.

8. All Work for the first combustion unit to be refurbished shall be completed and Accepted within 390 Days.

9. All Work for the second combustion unit to be refurbished shall be completed and Accepted within 780 Days.

10. All Work for the third combustion unit to be refurbished shall be completed and Accepted within 1170 Days.

4.2.3 Combustion Air Pre-Heater Replacements

1. Preliminary design shall be completed within 60 Days.

2. Requests for proposals shall be issued to bidders within 90 Days.

3. Final design shall be completed within 105 Days.

4. Purchase orders shall be issued for all equipment within 120 Days.

5. All equipment for the first combustion unit to be refurbished shall be received on site within 240 Days.

6. All equipment for the second combustion unit to be refurbished shall be received on site within 600 Days.

7. All equipment for the third combustion unit to be refurbished shall be received on site within 960 Days.

8. All Work for the first combustion unit to be refurbished shall be completed and Accepted within 390 Days.

9. All Work for the second combustion unit to be refurbished shall be completed and Accepted within 780 Days.

10. All Work for the third combustion unit to be refurbished shall be completed and Accepted within 1170 Days.

4.2.4 Ash Riddling System Modifications

1. Preliminary design shall be completed within 60 Days.

2. Requests for proposals shall be issued to bidders within 90 Days.

3. Final design shall be completed within 105 Days.

4. Purchase orders shall be issued for all equipment within 120 Days.

5. All equipment for the first combustion unit to be refurbished shall be received on site within 240 Days.

6. All equipment for the second combustion unit to be refurbished shall be received on site within 600 Days.

7. All equipment for the third combustion unit to be refurbished shall be received on site within 960 Days.

8. All Work for the first combustion unit to be refurbished shall be completed and Accepted within 390 Days.

9. All Work for the second combustion unit to be refurbished shall be completed and Accepted within 780 Days.

10. All Work for the third combustion unit to be refurbished shall be completed and Accepted within 1170 Days.

4.3 Scheduled Performance Date and Delay Liquidated Damages

The scheduled Performance Date for the Acceptance of all Work included in this Exhibit shall be 1170 Days from the Capital Project Commencement Date established pursuant to Schedule 7 to the Construction Agreement for the Capital Project contained in this Exhibit.

If the Contractor fails to achieve Acceptance of this Capital Project on or before the Scheduled Performance Date, the County shall be entitled to liquidated damages equal to two thousand dollars ($2,000) per Day for each Day after the Scheduled Performance Date until the Capital Project has achieved Acceptance. Payment of such liquidated damages shall be in accordance with Section 7.3.2 of the Construction Agreement.

In addition to the liquidated damages described above, there shall also be liquidated damages associated with the total number of boiler outage days needed to perform the Work included in this Exhibit. If the Contractor fails to achieve Acceptance of this Capital Improvement Project with less than 360 days of cumulative boiler outage time (i.e., the total time the three combustion units are collectively off line to complete all Work included in this Exhibit), the County shall be entitled to liquidated damages equal to two thousand dollars ($2,000) per Day for each boiler outage Day in excess of the 360 boiler outage day total until the last unit is brought back on line and the Capital Project has been Accepted. Payment of such liquidated damages shall be in accordance with Section 7.3.2 of the Construction Agreement. The County's Authorized Representative shall approve the outage schedules for all three combustion units.

Fall 2009 Schedule of Work

ID	Task Name	Duration	Start	Finish	Predecessors
1	**Boiler 1 CIP outage**	**247.38 days**	**Tue 9/1/09**	**Sun 11/22/09**	
2	**Pre-Outage task- boiler No.1**	**31 days**	**Tue 9/1/09**	**Fri 9/11/09**	
3	Inspect and Clear Baghouse Hoppers	120 hrs	Tue 9/1/09	Sun 9/6/09	
4	Prep lockout tagout for B101	120 hrs	Tue 9/1/09	Sun 9/6/09	
5	Start inspecting and clearing all superheat hoppers on B101	120 hrs	Tue 9/1/09	Sun 9/6/09	
6	Start inspecting and clearing all economizer hoppers on B101	120 hrs	Tue 9/1/09	Sun 9/6/09	
7	Start inspecting and clearing all the baghouse hopper on B101	120 hrs	Tue 9/1/09	Sun 9/6/09	
8	Clean out contact sump with filter press	120 hrs	Tue 9/1/09	Sun 9/6/09	
9	Boiler wash set up hoses and equipment	8 hrs	Fri 9/11/09	Fri 9/11/09	
10	Remove grapple No.1 crane	6 hrs	Thu 9/10/09	Thu 9/10/09	
11	Start inspecting and clearing all the SDA hopper on B101	8 hrs	Sat 9/5/09	Sat 9/5/09	
12	Remove all but 4 bolts on all economizer doors and store all bolts	8 hrs	Fri 9/11/09	Fri 9/11/09	
13	**Boiler 1 Shut down**	**3.75 days**	**Sat 9/12/09**	**Sun 9/13/09**	
14	Stop feeding B101	0.5 hrs	Sat 9/12/09	Sat 9/12/09	
15	Burn out refuse in hopper and grate	4 hrs	Sat 9/12/09	Sat 9/12/09	14
16	Ensure No. 1 air heater is valve out	2 hrs	Sat 9/12/09	Sat 9/12/09	14
17	Shut down FD fan after bed burned out sufficiently B101	0 hrs	Sat 9/12/09	Sat 9/12/09	15
18	B101 cool down	8 hrs	Sat 9/12/09	Sat 9/12/09	15
19	Run all feeders and grates off B101	4 hrs	Sat 9/12/09	Sat 9/12/09	14
20	Install furnace box fall protection B101	2 hrs	Sat 9/12/09	Sun 9/13/09	23
21	De-clinker furnace box	13.5 hrs	Sat 9/12/09	Sat 9/12/09	15
22	Sweep off all feeders and grate runs B101	4 hrs	Sun 9/13/09	Sun 9/13/09	20
23	Place all lockouts on B101	4 hrs	Sat 9/12/09	Sat 9/12/09	21
24	Clean out discharger before boiler wash	8 hrs	Sat 9/12/09	Sun 9/13/09	25
25	Run off grates from declinkering	4 hrs	Sat 9/12/09	Sat 9/12/09	21
26	**Boiler 1 operations off line task**	**21.88 days**	**Sat 9/12/09**	**Sun 9/20/09**	
27	Start Unit 1 boiler wash	36 hrs	Sun 9/13/09	Mon 9/14/09	24
28	Station Operators to monitor ash movement during wash	36 hrs	Sun 9/13/09	Mon 9/14/09	24
29	Clean out both front and back of dischargers B101	6 hrs	Mon 9/14/09	Tue 9/15/09	27
30	Clean up entire ground floor by dischargers	5 hrs	Tue 9/15/09	Tue 9/15/09	29
31	Open all under grate plenums and clear if full B101	24 hrs	Mon 9/14/09	Tue 9/15/09	27
32	Remove SNCR lances B101	2 hrs	Mon 9/14/09	Mon 9/14/09	27
33	Open all boiler doors and install boiler light B101	4 hrs	Sat 9/12/09	Sun 9/13/09	23
34	Wash air heater	12 hrs	Mon 9/14/09	Tue 9/15/09	28

ID	Task Name	Duration	Start	Finish	Predecessors
35	Inspect and clear out SDA hopper	36 hrs	Sat 9/12/09	Mon 9/14/09	23
36	Wash out bagouse No.3 inlet breeching	24 hrs	Mon 9/14/09	Tue 9/15/09	35
37	Inspect and clear economizer pant legs B101	12 hrs	Tue 9/15/09	Tue 9/15/09	30
38	Run out all ash on baghouse No.1	12 hrs	Sat 9/12/09	Sun 9/13/09	23
39	Rebuild SCR lances B101	120 hrs	Tue 9/15/09	Sun 9/20/09	30
40	Clean & rebuild urea flow tubes	120 hrs	Tue 9/15/09	Sun 9/20/09	30
41	Rebuild SDA lances	120 hrs	Tue 9/15/09	Sun 9/20/09	30
42	Inspect and all inlet baghouse breaching chain dampers, ensure	6 hrs	Tue 9/15/09	Tue 9/15/09	30
43	Wash the 1.6 and 1.7 riddling conveyors	4 hrs	Sun 9/13/09	Sun 9/13/09	44
44	Drain out the 1.6 conveyor	2 hrs	Sun 9/13/09	Sun 9/13/09	
45	Clear safety valve drain pans	4 hrs	Tue 9/15/09	Tue 9/15/09	30
46	Exercise all boiler doors B101	12 hrs	Tue 9/15/09	Tue 9/15/09	30
47	Lock down the 1.6 &1.7 drag conveyors	2 hrs	Mon 9/14/09	Mon 9/14/09	
48	Lock down VC-1 conveyor	2 hrs	Mon 9/14/09	Mon 9/14/09	
49	Drain and open No.1 boiler steam drum	8 hrs	Mon 9/14/09	Mon 9/14/09	
50	No.1 steam drum inspection	4 hrs	Tue 9/15/09	Tue 9/15/09	
51	No.1 tube shield inspection	4 hrs	Wed 9/16/09	Wed 9/16/09	
52	Inspection of boiler flue gas lane ways. Superheat & Economizer	12 hrs	Mon 9/14/09	Tue 9/15/09	27
53	Clean out entire inlet baghouse plenum B101	12 hrs	Mon 9/14/09	Mon 9/14/09	35
54	**Boiler 1 contractor work**	**208.5 days**	**Mon 9/14/09**	**Sun 11/22/09**	
55	Replace VC1 pan	108 hrs	Mon 9/21/09	Fri 9/25/09	
56	GK to inspect VC pan after replacement - possible re-spring	8 days	Mon 9/28/09	Wed 10/7/09	
57	Replace No.1 SDA cone	1080 hrs	Mon 9/28/09	Thu 11/12/09	35
58	Replaced 110 second pass roof tubes	336 hrs	Sun 10/4/09	Sun 10/18/09	
59	Boiler 1 Steam drum repairs	12 hrs	Mon 9/14/09	Tue 9/15/09	
60	Start scaffold boiler 1 after evaporator is cleaned	1 hr	Mon 9/14/09	Mon 9/14/09	
61	Boiler 1 Tube shield repair	120 hrs	Mon 10/26/09	Sat 10/31/09	
62	Start discharger replacements	456 hrs	Tue 10/27/09	Sun 11/15/09	
63	Boiler 1 UT profile starts	108 days	Sat 10/17/09	Sun 11/22/09	183
64	Make tube replacement and repairs after UT's	72 hrs	Fri 10/23/09	Mon 10/26/09	
65	Change out all baghouse No.1 outlet and deflation fan shafts	40 hrs	Mon 10/19/09	Fri 10/23/09	
66	Baghouse No.1 double dump inspection	40 hrs	Sat 10/24/09	Fri 10/30/09	177
67	Inspect economizer double dumps	8 hrs	Mon 11/2/09	Mon 11/2/09	66
68	Inspect baghouse screw conveyors	8 hrs	Tue 11/3/09	Tue 11/3/09	67

ID	Task Name	Duration	Start	Finish	Predecessors
69	Boiler 1 feed hopper repairs	40 days	Mon 10/19/09	Sun 11/1/09	
70	Replacing inboard bearing on No.1 FD fan	24 hrs	Fri 10/16/09	Tue 10/20/09	
71	Balance FD fan	6 hrs	Thu 11/19/09	Thu 11/19/09	
72	Install new expansion joints on rear OFA	24 hrs	Mon 10/26/09	Tue 10/27/09	64
73	Install new expansion joints on pant legs	48 hrs	Mon 11/2/09	Wed 11/4/09	
74	Baghouse hopper repairs	48 hrs	Mon 10/26/09	Wed 10/28/09	
75	Conduct TG1 battery capacity test (FRCC)	10 hrs	Mon 10/12/09	Tue 10/13/09	
76	**Boiler 1 inhouse maintenance task**	**130.13 days**	**Mon 9/14/09**	**Tue 10/27/09**	
77	PM No.1 ID fan	12 hrs	Mon 10/19/09	Tue 10/20/09	
78	Inspect alll boiler 1 superheat single dump valve	8 hrs	Mon 9/14/09	Mon 9/14/09	
79	Inspect superheater single dump valves	12 hrs	Mon 10/19/09	Tue 10/20/09	
80	Martin hydraulic tank and pump inspection	48 hrs	Tue 10/20/09	Tue 10/27/09	
81	TLT hydraulic tank and pump inspection	48 hrs	Tue 10/20/09	Tue 10/27/09	
82	Inspect under fire air fan and dampers	12 hrs	Tue 10/20/09	Wed 10/21/09	
83	Inspect rear and front over fire air dampers	24 hrs	Tue 10/20/09	Thu 10/22/09	
84	Pebble lime bin vent PM and service	48 hrs	Mon 10/19/09	Mon 10/26/09	
85	Rebuild SDA slide gates	48 hrs	Mon 10/19/09	Mon 10/26/09	
86	Total feed water flow FQI - 1161A	4 hrs	Mon 9/14/09	Mon 9/14/09	
87	Main steam temperature FQI - 1161A	4 hrs	Mon 9/14/09	Mon 9/14/09	
88	Main steam pressure PI - 1118	4 hrs	Tue 9/15/09	Tue 9/15/09	
89	Feed water temperature TI - 1125	4 hrs	Tue 9/15/09	Tue 9/15/09	
90	Steam coil air heater inlet temperature TI - 1008	4 hrs	Wed 9/16/09	Wed 9/16/09	
91	Steam coil air heater outlet temperature TI - 1007	4 hrs	Wed 9/16/09	Wed 9/16/09	
92	Average economizer inlet flue gas temperature TI - 1111-11	4 hrs	Thu 9/17/09	Thu 9/17/09	
93	Economizer outlet water temperature (into the SDA)TI - 1TI - 04(	4 hrs	Thu 9/17/09	Thu 9/17/09	
94	Economizer outlet water temperature TI1125-3	4 hrs	Fri 9/18/09	Fri 9/18/09	
95	Total Aux burner gas volume FQI - 0302	4 hrs	Fri 9/18/09	Fri 9/18/09	
96	Burner Mechanical inspection	12 hrs	Mon 9/21/09	Tue 9/22/09	
97	**Boiler 3 outage October**	**138.75 days?**	**Tue 9/8/09**	**Sat 10/24/09**	
98	**Pre- Outage task - boiler 3**	**131 days**	**Tue 9/8/09**	**Wed 10/21/09**	
99	Inspect and Clear Baghouse Hoppers	120 hrs	Mon 10/12/09	Sat 10/17/09	
100	Prep lockout tagout for B103	120 hrs	Mon 10/12/09	Sat 10/17/09	
101	Start inspecting and clearing all superheat hoppers on B103	120 hrs	Mon 10/5/09	Sat 10/10/09	
102	Start inspecting and clearing all economizer hoppers on B103	120 hrs	Mon 10/5/09	Sat 10/10/09	

ID	Task Name	Duration	Start	Finish	Predecessors
103	Start inspecting and clearing all the baghouse hopper on B103	120 hrs	Mon 10/5/09	Sat 10/10/09	
104	Hydraulic system leak check	8 days	Mon 10/12/09	Wed 10/21/09	
105	Clean out contact sump with filter press	120 hrs	Mon 10/5/09	Sat 10/10/09	
106	Boiler wash set up hoses and equipment	120 hrs	Tue 10/13/09	Sun 10/18/09	
107	Remove all but 4 bolts on all economizer doors and store all bolts	8 hrs	Tue 9/8/09	Tue 9/8/09	
108	Start inspecting and clearing all the SDA hopper on B103	8 hrs	Fri 10/9/09	Fri 10/9/09	
109	Remove all but 4 bolts on all economizer doors and store all bolts	8 hrs	Mon 10/12/09	Mon 10/12/09	
110	**Boiler 3 shut down**	**6.25 days**	**Tue 10/6/09**	**Fri 10/9/09**	
111	Stop feeding B103	0.5 days	Tue 10/6/09	Wed 10/7/09	
112	B103 off line	0.1 hrs	Tue 10/6/09	Tue 10/6/09	
113	Burn out refuse in hopper and grate	6 hrs	Tue 10/6/09	Wed 10/7/09	112
114	De-clinker furnace box	6 hrs	Wed 10/7/09	Wed 10/7/09	
115	Run grates after declinkering	8 hrs	Wed 10/7/09	Wed 10/7/09	114
116	Remove all boiler pyrometer B103	2 hrs	Wed 10/7/09	Wed 10/7/09	
117	Ensure No. 3 air heater is valve out	2 hrs	Tue 10/6/09	Wed 10/7/09	112
118	Shut down FD fan after bed burned out sufficiently B103	0 hrs	Thu 10/8/09	Thu 10/8/09	
119	Place all lockouts on B103	4 hrs	Thu 10/8/09	Thu 10/8/09	118
120	Trip TG 2 reverse power relay	0 hrs	Wed 10/7/09	Wed 10/7/09	
121	Physically check B300 breaker is open	0.5 hrs	Wed 10/7/09	Thu 10/8/09	120
122	Lock out generator breaker B300	0.5 hrs	Thu 10/8/09	Thu 10/8/09	121
123	Ensure TG2 is put on turning gear	0.5 hrs	Thu 10/8/09	Thu 10/8/09	122
124	TG2 to run oil system and cooling for 24 hrs	24 hrs	Thu 10/8/09	Fri 10/9/09	123
125	**Boiler 3 Operation's off line task**	**27.38 days**	**Wed 10/7/09**	**Fri 10/16/09**	
126	Start cutting discharger front faces off	6 hrs	Wed 10/7/09	Wed 10/7/09	
127	Start blasting superheat hoppers	24 hrs	Wed 10/7/09	Thu 10/8/09	126
128	Start blasting Platin area 045 elevation	24 hrs	Thu 10/8/09	Fri 10/9/09	127
129	Start stringing superheats and enconomizer	10 hrs	Fri 10/9/09	Fri 10/9/09	128
130	Walk boiler down before main blast clear all personnel and close	0.5 hrs	Fri 10/9/09	Fri 10/9/09	129
131	Blast entire back pass at one time B103	0.1 hrs	Fri 10/9/09	Fri 10/9/09	130
132	Clear B103 superheat & economizer hoppers	6 hrs	Fri 10/9/09	Sat 10/10/09	131
133	Clean out both front and back of dischargers B103	5 hrs	Sat 10/10/09	Sat 10/10/09	132
134	Clean out all ash in baghouse hoppers	12 hrs	Sat 10/10/09	Sat 10/10/09	133
135	Clean up entire ground floor by dischargers	5.5 hrs	Sat 10/10/09	Sun 10/11/09	134
136	Open all under grate plenums and clear if full B103	24 hrs	Thu 10/8/09	Fri 10/9/09	119

ID	Task Name	Duration	Start	Finish	Predecessors
137	Install furnace box fall protection B103	2 hrs	Sat 10/10/09	Sat 10/10/09	
138	Remove SNCR lances B103	2 hrs	Thu 10/8/09	Thu 10/8/09	119
139	Wash air heater	12 hrs	Thu 10/8/09	Thu 10/8/09	119
140	Inspect and clear out SDA hopper	24 hrs	Thu 10/8/09	Fri 10/9/09	141
141	Blast clean SDA	3 hrs	Thu 10/8/09	Thu 10/8/09	
142	Inspect and clear economizer pant legs B103	60 hrs	Thu 10/8/09	Sat 10/10/09	
143	Run out all ash on baghouse No.3	12 hrs	Thu 10/8/09	Thu 10/8/09	119
144	Clean off B103 Martin grate	6 hrs	Sat 10/10/09	Sat 10/10/09	
145	Rebuild SCR lances B103	5 days	Thu 10/8/09	Fri 10/9/09	119
146	Clean & rebuild urea flow tubes	5 days	Thu 10/8/09	Fri 10/9/09	119
147	Rebuild SDA lances	5 days	Thu 10/8/09	Fri 10/9/09	119
148	Inspect all inlet baghouse breaching chain dampers, ensure duct	6 hrs	Mon 10/12/09	Mon 10/12/09	
149	Open and inspect all riddlen convey chutes	2 hrs	Thu 10/8/09	Thu 10/8/09	119
150	Clear safety valve drain pans	4 hrs	Thu 10/8/09	Thu 10/8/09	119
151	Drain and open steam drum for inspection	40 hrs	Mon 10/12/09	Wed 10/14/09	
152	Inspect steam drum	4 hrs	Mon 10/12/09	Mon 10/12/09	
153	Inspect Platins superheats and economizers	12 hrs	Tue 10/13/09	Tue 10/13/09	
154	Inspect all baghouse hoppers	12 hrs	Tue 10/13/09	Tue 10/13/09	
155	Hydro boiler find leaks	6 hrs	Fri 10/9/09	Fri 10/9/09	
156	Inspect inlet baghouse breeching	2 hrs	Wed 10/14/09	Wed 10/14/09	
157	Inspect outlet breeching and poppet valves	8 hrs	Thu 10/15/09	Thu 10/15/09	
158	Inspect supperheater hoppers	3 hrs	Fri 10/16/09	Fri 10/16/09	
159	Inspect economizer to SDA crossover	3 hrs	Fri 10/16/09	Fri 10/16/09	158
160	Open and drain No.2 DA for inspection	8 hrs	Thu 10/8/09	Thu 10/8/09	119
161	Exercise all boiler doors B103	12 hrs	Mon 10/12/09	Mon 10/12/09	
162	Lock down steam seal system TG2	2 hrs	Thu 10/8/09	Thu 10/8/09	122
163	Boiler turned over to contractors	0.5 days	Sat 10/10/09	Sat 10/10/09	133
164	**Boiler 3 contractor work**	**137.88 days**	**Tue 9/8/09**	**Sat 10/24/09**	
165	Start discharger replacement	336 hrs	Sat 10/10/09	Sat 10/24/09	
166	Scaffold evaporator Second pass	16 hrs	Fri 10/9/09	Sat 10/10/09	
167	Remove evpaorator sacaffold	12 hrs	Wed 10/21/09	Wed 10/21/09	
168	Set up vacuum trucks to vacuum out B103 SH sigle dump valves	72 hrs	Sat 10/10/09	Tue 10/13/09	
169	Tube shield repairs	72 hrs	Sat 10/10/09	Tue 10/13/09	
170	Repair steam seal system TG2	48 hrs	Mon 10/12/09	Wed 10/14/09	122

ID	Task Name	Duration	Start	Finish	Predecessors
171	Build scaffold under No.2 TG for bus duct inspection	6 hrs	Wed 10/7/09	Wed 10/7/09	
172	Clean TG2 air coolers air coolers	8 hrs	Fri 10/16/09	Mon 10/19/09	208
173	Inspect No.2 TG bus duct	72 hrs	Mon 10/12/09	Thu 10/15/09	
174	Filter all lube oil in TG2	40 hrs	Mon 10/12/09	Mon 10/19/09	124
175	TG2 exciter replacement to start	88 hrs	Mon 10/12/09	Thu 10/15/09	
176	Conduct TG2 battery capacity test (FRCC)	12 hrs	Mon 10/12/09	Tue 10/13/09	
177	Baghouse No.3 double dump inspection	40 hrs	Mon 10/12/09	Fri 10/16/09	
178	No.2 DA internal inspection	4 hrs	Tue 10/13/09	Wed 10/14/09	
179	Boiler 3 steam main drain line replacement	120 hrs	Mon 10/12/09	Fri 10/23/09	
180	No.3 steam drum inspection	4 hrs	Wed 10/14/09	Wed 10/14/09	151
181	Repair steam leak on TG2 common drain header	4 hrs	Thu 10/15/09	Thu 10/15/09	
182	Repair leak on No.TG2 common drain system by No.3 discharge	6 hrs	Mon 10/19/09	Mon 10/19/09	
183	Start UT profile boiler 3	108 hrs	Tue 10/13/09	Sat 10/17/09	
184	Make tube replacement and repairs after UT's	92 hrs	Sat 10/17/09	Wed 10/21/09	183
185	Hydo boiler after tube repair	6 hrs	Wed 10/21/09	Wed 10/21/09	184
186	AVP install new isolation valves for No.4 boiler feed pump	12 hrs	Sat 10/10/09	Sun 10/11/09	
187	AVP to Remove No.2 bypass condenser pressure control valve	8 hrs	Thu 10/8/09	Thu 10/8/09	
188	Install New No.2 bypass pressure control valve	12 hrs	Fri 10/16/09	Sat 10/17/09	
189	AVP to repair diltion valves & & installed 4" buttery auto actuator	6 hrs	Fri 10/9/09	Fri 10/9/09	
190	Boiler 3 feedtable and undergrate and surface repairs	240 hrs	Wed 10/21/09	Fri 11/20/09	
191	Start control valve inspection	10 days	Mon 10/12/09	Fri 10/23/09	
192	Inspect and repair NRV TG2	40 hrs	Mon 10/12/09	Fri 10/16/09	
193	Tube shield inspection	4 hrs	Mon 10/12/09	Tue 10/13/09	126FS+12
194	Overhaul No.2 DA relief valve	12 hrs	Fri 10/9/09	Sat 10/10/09	
195	Clean out B103 superheat patin area (High pressure waterblaste	12 hrs	Fri 10/23/09	Fri 10/23/09	
196	Install DA rebuilt relief valves	12 hrs	Thu 10/15/09	Fri 10/16/09	
197	Install 4 inch nipples for superheat hopper cannons	12 hrs	Fri 10/16/09	Fri 10/16/09	
198	Inspect and repair feed hopper upper area	48 hrs	Sun 10/18/09	Tue 10/20/09	
199	**Boiler 3 inhouse maintenance task**	**45.5 days?**	**Thu 10/8/09**	**Fri 10/23/09**	
200	PM No.3 ID fan	12 hrs	Mon 10/19/09	Tue 10/20/09	
201	Baghouse screw inspection	12 hrs	Fri 10/9/09	Mon 10/12/09	143
202	Super heat dump valves Inspect & repair sigle dump valves	36 hrs	Fri 10/16/09	Thu 10/22/09	
203	Inspect and repair under and over fire air dampers	36 hrs	Thu 10/8/09	Wed 10/14/09	119
204	PM TG2 lube oil conditioner	12 hrs	Fri 10/9/09	Mon 10/12/09	124

ID	Task Name	Duration	Start	Finish	Predecessors
205	Rebuild No.3 feed water control valve	1 day?	Thu 10/8/09	Fri 10/9/09	160
206	Inspect recirc damper for boiler 3	8 hrs	Fri 10/16/09	Fri 10/16/09	
207	Remove top & bottom caps on TG2 air coolers	8 hrs	Thu 10/15/09	Thu 10/15/09	173
208	Remove supply and return pipes and top covers on TG2 air coole	12 hrs	Thu 10/15/09	Fri 10/16/09	173
209	Install supply and return lines & covers for TG2 air coolers	12 hrs	Mon 10/19/09	Tue 10/20/09	172
210	Rebuild SDA knife gates boiler 3	36 hrs	Mon 10/19/09	Fri 10/23/09	
211	Inspect underfire air fan and damper components	12 hrs	Mon 10/19/09	Tue 10/20/09	
212	Total feed water flow FQI - 050A	4 hrs	Mon 10/12/09	Mon 10/12/09	
213	Main steam temperature 03 TIC - 060	4 hrs	Mon 10/12/09	Mon 10/12/09	
214	Main steam pressure PI - 03 - PI066	4 hrs	Tue 10/13/09	Tue 10/13/09	
215	Feed water temperature 03 - TI - 051	4 hrs	Tue 10/13/09	Tue 10/13/09	
216	Steam coil air heater inlet temperature03- TI - 005 - 1	4 hrs	Wed 10/14/09	Wed 10/14/09	
217	Steam coil air heater outlet temperature 03-TI - 005	4 hrs	Wed 10/14/09	Wed 10/14/09	
218	Average economizer inlet flue gas temperature TI - 03 - TI 045	4 hrs	Thu 10/15/09	Thu 10/15/09	
219	Economizer outlet water temperature (into the SDA)TI - 3TI- 040	4 hrs	Thu 10/15/09	Thu 10/15/09	
220	Economizer outlet water temperature 03- TI - 052	4 hrs	Fri 10/16/09	Fri 10/16/09	
221	Total Aux burner gas volume FQI - 302	4 hrs	Fri 10/16/09	Fri 10/16/09	
222	Inspect feedtable hoppers	4 hrs	Mon 10/12/09	Mon 10/12/09	
223	Inspect feedchute hopper, wall Transition walls and damper	4 hrs	Mon 10/12/09	Mon 10/12/09	222
224	Inspect header protection blocks	1 hr	Tue 10/13/09	Tue 10/13/09	223
225	Inspect under grates	24 hrs	Tue 10/13/09	Fri 10/16/09	224
226	Inspect Grate surface	8 hrs	Fri 10/16/09	Mon 10/19/09	225
227	Inspect clinker roller	12 hrs	Mon 10/19/09	Tue 10/20/09	226
228	Inspect grate drive Assemblies (yoke areas)	36 hrs	Wed 10/14/09	Tue 10/20/09	
229	Inspect Martin hydraulic system	24 hrs	Fri 10/9/09	Tue 10/13/09	
230	Inspect the dischager TLT hydrauic system	24 hrs	Wed 10/14/09	Fri 10/16/09	229
231	Inspect economizer collection and transfer screw replace gasket	12 hrs	Mon 10/12/09	Tue 10/13/09	
232	Inspect baghouse north and south screws	12 hrs	Tue 10/13/09	Wed 10/14/09	
233	Inspect both north and south burners	12 hrs	Mon 10/12/09	Tue 10/13/09	
234	Inspect force draft fan, fan wheel, bearings, and couplings	12 hrs	Mon 10/19/09	Tue 10/20/09	
235	Inspect and lubricate FD fan dampers and perform stroke test	6 hrs	Tue 10/13/09	Tue 10/13/09	
236	Inspect and lubricate all OFA dampers and perform stroke test	6 hrs	Fri 10/16/09	Fri 10/16/09	
237	Inspect and lubricate the ID fan damper and perform stroke test	12 hrs	Mon 10/19/09	Tue 10/20/09	
238	**Boiler 2 outage October**	**42.16 days?**	**Tue 10/6/09**	**Tue 10/20/09**	

ID	Task Name	Duration	Start	Finish	Predecessors
239	**Stop feeding B102**	**21.29 days**	**Tue 10/6/09**	**Tue 10/13/09**	
240	B102 off line	0 hrs	Tue 10/6/09	Tue 10/6/09	
241	Burn out refuse in hopper and grate	6 hrs	Thu 10/8/09	Thu 10/8/09	
242	De-clinker furnace box	6 hrs	Wed 10/7/09	Wed 10/7/09	
243	Run grates after declinkering	6 hrs	Wed 10/7/09	Wed 10/7/09	242
244	Remove all boiler pyrometer B102	2 hrs	Thu 10/8/09	Thu 10/8/09	
245	Ensure No. 2 air heater is valve out	2 hrs	Thu 10/8/09	Thu 10/8/09	
246	Shut down FD fan after bed burned out sufficiently B102	0 hrs	Thu 10/8/09	Thu 10/8/09	241
247	Place all lockouts on B102	4 hrs	Sat 10/10/09	Sat 10/10/09	
248	Trip TG1 reverse power relay	0 hrs	Tue 10/6/09	Tue 10/6/09	
249	Physically check B100 breaker is open	0.5 hrs	Tue 10/6/09	Tue 10/6/09	248
250	Ensure TG1 is put on turning gear	0.5 hrs	Tue 10/6/09	Tue 10/6/09	248
251	TG1 to run oil system and cooling for 24 hrs	170.3 hrs	Tue 10/6/09	Tue 10/13/09	248
252	**Boiler 2 Operation's off line task**	**19.06 days**	**Wed 10/7/09**	**Tue 10/13/09**	
253	Start blasting superheat hoppers	24 hrs	Wed 10/7/09	Thu 10/8/09	242
254	Start blasting Platin area 045 elevation	24 hrs	Thu 10/8/09	Fri 10/9/09	253
255	Start stringing superheats and enconomizer	10 hrs	Fri 10/9/09	Fri 10/9/09	
256	Walk boiler down before main blast clear all personnel and close	0.5 hrs	Fri 10/9/09	Fri 10/9/09	
257	Blast entire back pass at one time B102	0.1 hrs	Fri 10/9/09	Fri 10/9/09	256
258	Clear B103 superheat & economizer hoppers	6 hrs	Fri 10/9/09	Sat 10/10/09	257
259	Clean out both front and back of dischargers B102	5 hrs	Sat 10/10/09	Sat 10/10/09	258
260	Clean out all ash in baghouse hoppers	12 hrs	Thu 10/8/09	Thu 10/8/09	
261	Clean up entire ground floor by dischargers	5.5 hrs	Sat 10/10/09	Sat 10/10/09	259
262	Open all under grate plenums and clear if full B102	24 hrs	Sun 10/11/09	Mon 10/12/09	
263	Install furnace box fall protection B102	2 hrs	Sat 10/10/09	Sat 10/10/09	
264	Wash air heater	12 hrs	Thu 10/8/09	Thu 10/8/09	
265	Inspect and clear out SDA hopper	24 hrs	Thu 10/8/09	Fri 10/9/09	
266	Blast clean SDA	3 hrs	Fri 10/9/09	Fri 10/9/09	
267	Inspect and clear economizer pant legs B102	60 hrs	Sat 10/10/09	Mon 10/12/09	
268	Run out all ash on baghouse No.2	12 hrs	Sat 10/10/09	Sat 10/10/09	
269	Clean off B102 Martin grate	6 hrs	Sat 10/10/09	Sat 10/10/09	268
270	Rebuild SDA lances	5 days	Mon 10/12/09	Tue 10/13/09	262
271	Inspect all inlet baghouse breaching chain dampers, ensure duct	6 hrs	Sun 10/11/09	Sun 10/11/09	
272	Open and inspect all riddlen convey chutes	2 hrs	Mon 10/12/09	Mon 10/12/09	

ID	Task Name	Duration	Start	Finish	Predecessors
273	**Boiler 2 maintenance & contractor work**	**33.38 days?**	**Fri 10/9/09**	**Tue 10/20/09**	
274	Sandblast B102 lower steam wall between stringer loops and hig	8 hrs	Sat 10/10/09	Sat 10/10/09	
275	UT lower steam wall between stringer loops and high temp super	12 hrs	Sat 10/10/09	Sun 10/11/09	
276	Make tube repairs	144 hrs	Mon 10/12/09	Sun 10/18/09	
277	Refractory 5' x 46' band on the rear lower steam wall	24 hrs	Sun 10/18/09	Mon 10/19/09	276
278	Water blast out rest of superheat hoppers	8 hrs	Tue 10/20/09	Tue 10/20/09	282
279	Repair ram feeder impact plates	42 hrs	Fri 10/9/09	Tue 10/13/09	
280	Set up on matin yoke area and inspected and repair pins grease	54 hrs	Fri 10/9/09	Wed 10/14/09	
281	Inspect and repair feedtable top skin	1 day?	Tue 10/13/09	Tue 10/13/09	279
282	Repair feedchute	240 hrs	Sat 10/10/09	Tue 10/20/09	
283	Surface inspection	4 hrs	Sun 10/11/09	Sun 10/11/09	
284	Under grate inspection	24 hrs	Thu 10/15/09	Sat 10/17/09	
285	**Common**	**28.13 days**	**Sun 10/11/09**	**Tue 10/20/09**	
286	Galley belt inspection and repair bearings and scappers	48 hrs	Fri 11/13/09	Fri 11/20/09	287
287	Clean out Gallery belt by take- up so inspection can be checked	48 hrs	Sun 10/11/09	Tue 10/13/09	

SPRING 2010 TASK LIST

ITEM #	B102 shut down for outage	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
1	Stop feeding B102	0 days	2/6/2010	X			
2	Valve out air heater	1 hr	2/6/2010	X			
3	Cool down boiler for furnace blasting	4 hrs	2/6/2010	X			
4	Ensure all superheater hoppers are clear before blasting	1 hr	2/6/2010	X			
5	Ensure all economizer hoppers are clear before blasting	1 hr	2/6/2010	X			
6	Ensure SDA hopper is clear	1 hr	2/6/2010	X			
7	Ensure all baghouse hoppers are running out	1 hr	2/6/2010	X			
8	Cool boiler for entering for deck cord install	19 hrs	2/6/2010	X			
9	Remove all pyrometers and place in E&I shop	1 hr	2/6/2010	X			
10	Remove Urea lances	1 hr	2/6/2010	X			
11	Remove SDA lances	1 hr	2/6/2010	X			
12	Shut down FD fan	0.05 days	2/6/2010	X			
13	Blasters on site to blast furnace	8 hrs	2/6/2010	X			
14	Run feeders and grates off after furnace blasting is complete	8 hrs	2/6/2010	X			
15	Lock out boiler steam side for entering	4 hrs	2/6/2010	X			
16	Install Furnace box lighting	2 hrs	2/6/2010	X			
17	Open all boiler doors when doing lock out to help boiler cool down	4 hrs	2/6/2010	X			
18	Install pen house blower	0.5 hrs	2/6/2010	X			
19	Make confine space permits for entering all levels of superheat and economizer	1 hr	2/6/2010	X			
20	Blasters back on site to string deck cord in superheat and economizer	12 hrs	2/7/2010	X			
21	Set deck cord charge	1 hr	2/7/2010	X			
22	Blasters to check tell-tail fuse after blasting	0.5 hrs	2/7/2010	X			
23	Blasters to enter boiler and remove all caps and strings	2 hrs	2/7/2010	X			
24	Clear superheat hoppers and economizer hoppers after blasting	4 hrs	2/7/2010	X			

ITEM #	B102 Operation's task list	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
25	Lock out all valves for B102 feed chute for chute replacement	2 hrs	2/6/2010	X			
26	Lock out Martin feeders and grates	1 hr	2/6/2010	X			
27	Install fall protection	2 hrs	2/6/2010	X			
28	Make - confine space for furnace box	1 hr	2/6/2010	X			
29	Sweep off feed table after furnace blasting	8 hrs	2/6/2010	X			
30	Drain 2.6 drag conveyor	2 hrs	2/7/2010	X			
31	Open all under-grate hopper doors and clear hoppers	4 hrs	2/7/2010	X			
32	Lock out 2.6 and 2.7 drag conveyor	1 hr	2/7/2010	X			
33	Back fill boiler for hydro	8 hrs	2/7/2010	X			
34	Lock out both TLT dischargers	1 hr	2/7/2010	X			
35	High pressure blast front and back of dischargers	24 hrs	2/7/2010	X			
36	Clean out safety valve drain pans	1 hr	2/7/2010	X			
37	Hydro boiler	6 hrs	2/7/2010	X			
38	Identify all leaks with paint and note in control room log book	12 hrs	2/8/2010	X			
39	Open all economizer doors	6 hrs	2/8/2010	X			
40	Clean-up ground floor after discharger cleanout	24 hrs	2/8/2010	X			
41	Open pant leg doors	2 hrs	2/8/2010	X			
42	Open crossover doors	2 hrs	2/8/2010	X			
43	Break down all slurry guns for inspection and repair	48 hrs	2/9/2010	X			
44	Inspect the baghouse inlet breeching ash build up	8 hrs	2/11/2010	X			
45	Cleanout baghouse in let breeching	12 hrs	2/11/2010	X			
46	Vacuum out the superheat to economizer crossover	24 hrs	2/11/2010	X			
47	Break down urea guns for inspection an rebuild as needed	48 hrs	2/12/2010	X			
48	Perform Acid wash on slurry system	12 hrs	2/16/2010				
49	Perform acid ash on dilution system	12 hrs	2/16/2010				
50	Clean out Martin hydraulic cabinet and pump skid	8 hrs	2/16/2010				
51	Clean out the TLT hydraulic skid	8 hrs	2/17/2010				
52	Inspect all baghouse inlet chain damper operation	8 hrs	2/17/2010				
53	Drain steam drum after hydro	4 hrs	2/17/2010	X			
54	Open both steam drum doors for drum inspection	2 hrs	2/17/2010	X			
55	Shake all baghouse compartment bags	48 hrs	2/17/2010	X			

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ITEM #	Contractor work on B102	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
56	Turn feed chute over to construction (Cliff)	0 days	2/8/2010	X			
57	Cut dischargers open	8 hrs	2/7/2010	X			
58	Turn sifting over to construction (Cliff)	0 days	2/7/2010	X			
59	Turn furnace box over to construction (Cliff)	0 days	2/8/2010	X			
60	Turn dischargers over to construction (Cliff)	0 days	2/8/2010	X			
61	Inspect B102 steam drum	6 hrs	2/23/2010	X			
62	Replace both dischargers B102	240 hrs	2/22/2010				
63	Scaffold second pass	12 hrs	2/20/2010	X			
64	Scaffold superheat hoppers	8 hrs	2/20/2010	X			
65	Scaffold superheat dead air space	4 hrs	2/21/2010	X			
66	Scaffold pant legs	4 hrs	2/21/2010	X			
67	Scaffold all economizer hoppers	8 hrs	2/21/2010	X			
68	Inspect all tile and refractory for repairs	8 hrs	2/21/2010				
69	Scaffold under both generators	8 hrs	2/21/2010	X			
70	Inspect furnace membrane for pick up work	8 hrs	2/22/2010				
71	Remove shields on second pass platen tubes	24 hrs	3/1/2010				
72	Make tile and refractory repairs	72 hrs	3/1/2010				
73	Install new tube shields on B102 second pass	48 hrs	3/1/2010				
74	Start baghouse shaft ,solenoid replacement	108 hrs	2/22/2010				
75	Remove refractory on steam wall	12 hrs	2/12/2010				
76	Start sand blasting boiler for UT profile	72 hrs	3/5/2010				
77	Start UT profile	108 hrs	3/8/2010				
78	Start Lower steam wall replacement	192 hrs	3/12/2010				
79	Start making tube repairs after UT profile	120 hrs	3/12/2010				
80	Boiler 2 Final hydro	8 hrs	3/21/2010				

ITEM #	Mechanical maintenance task (ETaylor)	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
81	TLT Hydraulic System PM B102	12 hrs	2/8/2010	x		Doug Kirk	
82	Martin Hydraulic System PM	12 hrs	2/8/2010	x		Doug Kirk	
83	Inspect Economizer Collection and Transfer Screw Conveyors, replace gasket materials and secure lids.	12 hrs	2/9/2010			Willie Metcalfe	Replacement Screws and Hardware ordered
84	Inspect Bag House North and South Screw Conveyors	8 hrs	2/9/2010	x		Chuck Reece	
85	Inspect SDA Slide Gates B102	8 hrs	2/9/2010			Doug Kirk	
86	Inspect Auxiliary Burners B102	8 hrs	2/10/2010	x		Art Yabczanka	
87	Inspect Soot Blower System B102	48 hrs	2/10/2010			Doug Kirk	
88	Inspect the Forced Draft Fan (FD) Fan Wheel, Bearings, coupling, lubricate linkage and perform stroke control from control room. B102	12 hrs	2/14/2010			Randell Trowell	
89	Inspect Front Air Damper B102	8 hrs	2/15/2010			Art Yabczanka	
90	Inspect Rear Air Damper B102	8 hrs	2/16/2010			Chris Dick	
91	Inspect Induced Draft Fan (ID) Fan Wheel, Bearings, couplings. lubricate linkage, lubricate damper assemblies and perform stroke control from control room	24 hrs	2/17/2010			Doug Kirk	
92	Inspect Super Heat Dump Valves B102	8 hrs	2/19/2010			Carlos Conforme	
93	Inspect Economizer Dump Valves B102	8 hrs	2/19/2010			Carlos Conforme	
94	Inspect both Economize Screw Conveyors B102	8 hrs	2/20/2010	x		Doug Kirk	
95	Inspect Economizer Hoppers B102	8 hrs	2/21/2010			Doug Kirk	
96	Inspect Bag House Dump Valves B102	24 hrs	2/21/2010			Chuck Reece	
97	Inspect Bag House N & S Screw Conveyors B102	8 hrs	2/23/2010	x		Chuck Reece	
98	Inspect Drag Conveyors B102	24 hrs	2/24/2010			Carlos Conforme	
99	Inspect, lubricate fasting devices on all boiler access doors B102	12 hrs	2/26/2010			Chris Dick	
100	Inspect Deflation Fan Dampers B102	8 hrs	2/27/2010			Art Yabczanka	

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ITEM #	E&I outage work	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
101	Megger and record motor data for Boiler #2 motors	8 hrs	2/8/2010			Darren Stewart	NonOUtage
102	Calibrate instruments on Boiler #2 and associated equip.	180 hrs	2/8/2010			Darren Stewart	NonOUtage
103	Calibrate steam flow instruments on #2 TG-----All HHV calibrations for Units #1,2,3	40 hrs	3/8/2010			Darren Stewart	K.Cockream
104	Relocate TC's from urea ports to thermal wells in boiler #1on 4.5 lvl N and S	12 hrs	3/8/2010			Darren Stewart	NonOUtage
105	Re-pull coax cabling for Hopper #1 and #2 cameras to control room	48 hrs	3/9/2010			Darren Stewart	MJM
106	#3 Feedchute Hopper Camera Not Working-actually #1 hopper as we relocated #1's to #3	4 hrs	3/9/2010			Darren Stewart	MJM
107	Replace bad EHC bladder #1 TG left bladder	8 hrs	3/9/2010			Darren Stewart	Parts?
108	TAW to degasify TR103 due to high acetylene concentrations	48 hrs	3/9/2010			Darren Stewart	TAW
109	Clean out all Bailey, DCS cabinets, and PC's in Control Room	172 hrs	3/9/2010			Darren Stewart	T.Schmitt
110	Cutsforth to install EasyChange brushes in #2TG	48 hrs	3/9/2010			Darren Stewart	Cutsforth
111	Cutsforth to install EasyChange brushes in #1 TG	48 hrs	3/9/2010			Darren Stewart	Cutsforth
112	Repair/replace all non-functioning pull and alignment switches on Gallery belt	72 hrs	3/9/2010			Darren Stewart	NonOUtage
113	Install Phoenix fuse holders in DCS cabinets	12 hrs	3/9/2010			Darren Stewart	T.Schmitt
114	Install new pull cord switch to replace removed switch	12 hrs	3/9/2010			Darren Stewart	NonOUtage
115	Calibrate flow meters on water lines(see comments)	8 hrs	3/9/2010			Darren Stewart	AMJ here on 3/18/10
116	TG #1 -ensure tight seal on all vents, covers and ports	8 hrs	3/9/2010			Darren Stewart	NonOUtage
117	Repair flex on crane pulpit chairs- all 3 chairs	6 hrs	3/10/2010			Darren Stewart	P.Huynh
118	Protective Relay for Feeder TR02 Needs Battery Replace, In Alarm	4 hrs	3/10/2010			Darren Stewart	Vendor
119	#1 TG- Clean bushings and stand-off insulators	8 hrs	3/10/2010			Darren Stewart	Fall Outage
120	Replace melted wiring on B103 S pyrometer	6 hrs	3/10/2010			Darren Stewart	MJM
121	Replace Arc Horn SO3 A/phase	8 hrs	3/10/2010			Darren Stewart	GE
122	#2 TG- Clean bushings and stand-off insulators	12 hrs	3/10/2010			Darren Stewart	MJM
123	Calibrate instruments #1 TG hyd and L.O. systems	12 hrs	3/13/2010			Darren Stewart	R.Hammer
124	Properly seal inspection port cover on collector housing TG#2	6 hrs	3/13/2010			Darren Stewart	NonOUtage
125	Order and Replace filter screen on #2 TG floor	2 hrs	3/13/2010			Darren Stewart	NonOUtage
126	Replace arrestor box fir #2 and #3 FD fans	4 hrs	3/8/2010			Darren Stewart	MJM
127	Calibrate instruments- Unit #1 - require outage	20 hrs	3/8/2010			Darren Stewart	R.Hammer
128	Install Phoenix fuse holders in RSPB control cabinet	10 hrs	3/8/2010			Darren Stewart	MJM
129	Complete instrument calibrations on #2 TG hyd & L.O. sys	12 hrs	3/15/2010			Darren Stewart	NonOUtage

ITEM #	Boiler 2 HHV critical calibrations	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
130	Total feedwater flow FQI - 2116A	4 hrs	2/15/2010				
131	Main steam temperature 2125-2	4 hrs	2/15/2010				
132	Main steam pressure PI - PI-2118	4 hrs	2/15/2010				
133	Feedwater temperature TI - 2125	4 hrs	2/16/2010				
134	Steam coil air heater inlet temperature TI - 2008	4 hrs	2/16/2010				
135	Steam coil air heater outlet temperature TI - 2007	4 hrs	2/16/2010				
136	Average economizer inlet flue gas temperature TI - TI - 2111 - 11	4 hrs	2/17/2010				
137	Economizer outlet water temperature (into the SDA) 2TI-040	4 hrs	2/17/2010				
138	Economizer outlet water temperature TI - 2125 - 3	4 hrs	2/17/2010				
139	Total Aux burner gas volume FQI - 302	4 hrs	2/18/2010				

ITEM #	B101 Pre-Shutdown	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
140	Prep lockout tag out for B101 and TG outage	5 Days	2/10/2010				
141	Check on inventory of hydrogen and CO2	2 hrs	2/10/2010	X		Mark Stapleton	Ordered 12 CO2
142	Massage bags and rap cell plates on B101	12 hrs	2/15/2010				
143	Start inspecting and clearing all superheat hoppers on B101	40 hrs	2/15/2010				
144	Start inspecting and clearing all economizer hoppers on B101	40 hrs	2/15/2010				
145	Start inspecting and clearing all the baghouse hopper on B101	40 hrs	2/15/2010				
146	Start inspecting and clearing all the SDA hopper on B101	40 hrs	2/15/2010				
147	Remove all but 4 bolts on all economizer doors and store all bolts in bucket and put in ops cage on second floor	11.94 hrs	2/15/2010				

ITEM #	B103 Pre-Shutdown	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
148	Prep lockout tag out for outage	5 days	2/10/2010				
149	Start inspecting and clearing all superheat hoppers on B103	5 days	2/10/2010				
150	Start inspecting and clearing all economizer hoppers on B103	40 hrs	2/10/2010				
151	Start inspecting and clearing all the baghouse hopper on B103	40 hrs	3/6/2010			Rob Benoit	

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152	Start inspecting and cleaning all the SDA hopper on B103	40 hrs	3/6/2010			Gil Ramos	
153	Massage bags and rap cell plates on B103	40 hrs	3/8/2010			Mike Christian	Will Do Cleaning Shutdown Cycles
154	Remove all but 4 bolts on all economizer doors and store all bolts in bucket and put in ops cage on second floor	8 hrs	2/26/2010			Steven Boles	

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ITEM #	Common Outage Preparation	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
155	Install scaffold under both TG generators	8 hrs	2/11/2010	X		Tom McCandless	
156	Check CO2 & Hydrogen inventory	1 day?	2/12/2010	X		Mark Stapleton	
157	Pressure wash Gallery & C-1 rollers, structure and take-ups before shut down	12 hrs	3/4/2010			Noe Cabrera	New Employees Will Assist
158	Clean up under Gallery and C-1 ground floor after belt washing	12 hrs	3/4/2010			Laborers	
159	Remove ash from No.3 under fire air duct work	8 hrs	3/5/2010			Veolia	
160	Lower set point on cooling tower level so when tower shuts of fit does not over flow	8 hrs	3/7/2010			Bernard Coley	
161	Lower set point on dilution tank	8 hrs	3/7/2010			Bernard Coley	
162	Lower set point to bring down waste water tank level	8 hrs	3/7/2010				What
163	Lower set point on slurry tank	8 hrs	3/7/2010			Bernard Coley	

ITEM #	TG 2 Shut down	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
164	Trip TG 2 reverse power relay	0.5 hrs	3/8/2010			Pete Moore	Are We Doing Overspeed Testing
165	Physically check B300 breaker is open and log in control room log	0.5 hrs	3/8/2010			Pete Moore	
166	Ensure TG2 is put on turning gear after RPM's run down	0.5 hrs	3/8/2010			Louis Matthews	
167	TG2 to run oil system and cooling for 24 hrs	24 hrs	3/8/2010			Pete Moore	
168	Lock out generator breaker B300	0.5 hrs	3/8/2010			Pete Moore	

ITEM #	Boiler #3 Shut Down	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
169	Stop feeding B103	0 days	3/8/2010			Pete Moore	
170	Boiler #3 off line	2 hrs	3/8/2010			Pete Moore	
171	Remove all boiler pyrometer B103	1 hr	3/8/2010			Louis Matthews	
172	Ensure No. 3 air heater is valve out	1 hr	3/8/2010			Louis Matthews	
173	B103 cool down	4 hrs	3/8/2010			Mike Christian	
174	Run all feeders and grates off B103	4 hrs	3/8/2010			Mike Christian	
175	Shut down FD fan after bed burned out sufficiently B103	0.5 days	3/8/2010			Mike Christian	
176	Set all grate runs at 50% stroke B103	0.5 hrs	3/8/2010			Matt Illingworth	
177	Set all feeder tables all the way back B103	0.5 hrs	3/8/2010			Rob Benoit	
178	Place all lockouts on B103	4 hrs	3/8/2010			Gary Evans	
179	Make up confine space for B103 furnace box	0.5 days	3/8/2010			Gary Evans	
180	Install furnace box fall protection B103	1 hr	3/8/2010			Nathan Forshier	
181	Sweep off all feeders and grate runs B103	8 hrs	3/8/2010			Laborers	

ITEM #	Boiler 3 Outage task	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
182	Pre Hydro boiler 3	8 hrs	3/8/2010			Charlie Wilson	
183	Clear all Super heat hoppers B103	4 hrs	3/8/2010			Josh Bowers	
184	Clear all economizer hoppers and screws	4 hrs	3/8/2010			Josh Bowers	
185	Run out all ash on baghouse No.3	12 hrs	3/8/2010			Josh Bowers	
186	Inspect and clear out SDA hopper B103	12 hrs	3/8/2010			Steven Boles	
187	Exercise all boiler doors B103	8 hrs	3/8/2010			Gary Evans	
188	Clear safety valve drain pans B103	1 hr	3/8/2010			Dale Eggleston	
189	Open all under grate plenums B103	2 hrs	3/8/2010			Gary Evans	
190	Remove SNCR lances B103	12 hrs	3/8/2010			Steven Boles	
191	Open all boiler doors and install boiler light B103	8 hrs	3/8/2010			Nathan Forshier	
192	Clean out both diechargers B103	12 hrs	3/9/2010			Joe Turconi	
193	Inspect and clear all under grate convey chutes B103	12 hrs	3/9/2010			Steven Boles	
194	Inspect and all inlet baghouse breaching chain dampers, ensure ducts & tracks are clear and that chain damper works B103	8 hrs	3/9/2010				
195	Inspection of boiler flue gas lane ways. Superheat & Economizer Clear all lanes that are blocked	8 hrs	3/9/2010				
196	Clean up ground floor after discharger cleanout	8 hrs	3/9/2010			Laborers	
197	Park both diechargers back after clean out B103	1 hr	3/9/2010			Joe Turconi	
198	Tag out dischargers in preparation for VC liner replacement	1 hr	3/9/2010			Gary Evans	
199	Rebuild SCR lances B103 as needed	8 hrs	3/11/2010			Louis Matthews	
200	Clean & rebuild urea flow tubes as needed B103	8 hrs	3/11/2010			Louis Matthews	
201	Rebuild SDA lances as needed B103	8 hrs	3/11/2010			Laborers	
202	Inspect and clear economizer pant legs B103	4 hrs	3/12/2010				
203	Wash air heater B103	8 hrs	3/12/2010			Gary Evans	

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ITEM #	TG1 Shut Down	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
204	Trip TG 1 reverse power relay	0.5 hrs	3/8/2010			Pete Moore	
205	TG1 to run oil system and cooling for 24 hrs	24 hrs	3/8/2010			Pete Moore	
206	Physically check B100 breaker is open and log in control room log	0.5 hrs	3/8/2010			Pete Moore	
207	Ensure TG1 is put on turning gear after RPM's run down	0.5 hrs	3/8/2010			Louis Matthews	
208	Start purge of generator	6 hrs	3/8/2010			Pete Moore	
209	Lock out generator breaker B100 and roll out of cubical	0.5 hrs	3/8/2010			Pete Moore	

ITEM #	Boiler #1 Shutdown	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
210	Stop feeding B101	0 days	3/8/2010			Pete Moore	
211	B101 off fire	2 hrs	3/8/2010			Pete Moore	
212	Remove all boiler pyrometer B101	1 hr	3/8/2010			Louis Matthews	
213	Ensure No. 1 air heater is valve out	1 hr	3/8/2010			Louis Matthews	
214	B101 cool down	4 hrs	3/8/2010			Mike Christian	
215	Run all feeders and grates off B101	4 hrs	3/8/2010			Mike Christian	
216	Shut down FD fan after bed burned out sufficiently B101	0.5 days	3/8/2010			Mike Christian	
217	Set all grate runs at 50% stroke B101	0.5 hrs	3/8/2010			Matt Illingworth	
218	Set all feeder tables all the way back B101	0.5 hrs	3/8/2010			Rob Benoit	
219	Place all lockouts on B101	4 hrs	3/8/2010			Gary Evans	
220	Make up confine space for B101 furnace box	0.5 days	3/8/2010			Gary Evans	
221	Install furnace box fall protection B101	1 hr	3/8/2010			Nathan Forshier	
222	Sweep off all feeders and grate runs B101	8 hrs	3/8/2010			Laborers	

ITEM #	Boiler 1 Outage task	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
223	Clear all Super heat hoppers B101	4 hrs	3/8/2010			Steven Boles	
224	Clear all economizer hoppers and screws	4 hrs	3/8/2010			Steven Boles	
225	Run out all ash on baghouse No.1	12 hrs	3/8/2010			Steven Boles	
226	Clean out both dischargers B101	12 hrs	3/8/2010			Joe Turconi	
227	Inspect and clear out SDA hopper B101	12 hrs	3/8/2010			Josh Bowers	
228	Open all under grate plenums B101	2 hrs	3/8/2010			Steven Boles	
229	Remove SNCR lances B101	12 hrs	3/8/2010			Gary Evans	
230	Open all boiler doors and install boiler light B101	8 hrs	3/8/2010			Gary Evans	
231	Clean up ground floor after discherger cleanout	8 hrs	3/8/2010			Laborers	
232	Park both dischargers back after clean out B101	1 hr	3/8/2010			Joe Turconi	
233	Tag out dischargers in preparation for VC liner replacement	1 hr	3/8/2010			Nathan Forshier	
234	Clear safety valve drain pans B101	1 hr	3/9/2010			Dale Eggleston	
235	Exercise all boiler doors B101	8 hrs	3/9/2010			Ken Star	
236	Inspect and clear all under grate convey chutes B101	12 hrs	3/9/2010			Ken Star	
237	Inspect and all inlet baghouse breaching chain dampers, ensure ducts & tracks are clear and that chain damper works B101	8 hrs	3/9/2010			Brian O'Loughlin	
238	Pre Hydro boiler 1	6 hrs	3/9/2010			Brian O'Loughlin	
239	Rebuild SCR lances B101 as needed	8 hrs	3/9/2010			Gary Evans	
240	Clean & rebuild urea flow tubes as needed B101	8 hrs	3/9/2010			Laborers	
241	Rebuild SDA lances as needed B101	8 hrs	3/10/2010			Matt Illingworth	
242	Inspection of boiler flue gas lane ways. Superheat & Economizer Clear all lanes that are blocked B101	8 hrs	3/10/2010			Mark Stapleton	
243	Inspect and clear economizer pant legs B101	4 hrs	3/11/2010				
244	Wash air heater B101	8 hrs	3/11/2010			Bernard Coley	

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ITEM #	Common equipment contractor repairs	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
245	CMN on site to setup for vibrating conveyor liner replacement	1 day?	3/8/2010			CMN	
246	Disconnect chain on gallery belt gear box	12 hrs	3/9/2010				
247	Cooling tower overall inspection	37 hrs	3/9/2010				
248	Remove Gallery belt	8 hrs	3/9/2010			Epperson	
249	Repair gallery belt skirting	96 hrs	3/9/2010				
250	Change out No.1 circ pump & motor	36 hrs	3/9/2010			Eclipse	
251	Replace vibration conveyor liner # 2	96 hrs	3/9/2010			CMN	
252	Replace vibration conveyor liner # 3	96 hrs	3/9/2010			CMN	
253	Remove old C-1 belt	8 hrs	3/9/2010			Epperson	
254	Replace bad rollers on C-1	24 hrs	3/9/2010			Epperson	
255	Vacuum debris & material out of cooling tower sump	48 hrs	3/9/2010			Veolia	
256	Clean No.1 surface condenser tubes	12 hrs	3/9/2010			Conco	
257	Remove old belt C-9	4 hrs	3/9/2010			Epperson	
258	Relag head pulley on gallery belt	12 hrs	3/9/2010			Epperson	
259	Remove old belt C-4	4 hrs	3/9/2010			Epperson	
260	Replace Gallery belt gear box and coupling	12 hrs	3/9/2010				
261	Reset scrapers on C-1 belt	2 hrs	3/9/2010			Epperson	
262	Replace bad rollers on gallery belt	12 hrs	3/10/2010			Epperson	
263	Replace bad rollers on C-4	8 hrs	3/10/2010			Epperson	
264	Replace bad rollers on C-9	8 hrs	3/10/2010			Epperson	
265	Relag both upper take-up bend pullies on Gallery belt	8 hrs	3/10/2010			Epperson	
266	Clean No.2 surface condenser	12 hrs	3/10/2010			Conco	
267	Install new belt and vulcanize C-1 belt	12 hrs	3/11/2010			Epperson	
268	Make tower sump concrete repairs	48 hrs	3/11/2010			Lou Arpino	
269	Install new belt and vulcanize gallery belt	24 hrs	3/11/2010			Epperson	
270	Replace take-ups on C-12	8 hrs	3/12/2010			Epperson	
271	Repair skirting on C-1 belt	12 hrs	3/12/2010			Epperson	
272	Install new belt and vulcanize belt C-4	12 hrs	3/12/2010			Epperson	
273	Install new belt and vulcanize belt in C-9	8 hrs	3/12/2010			Epperson	
274	Reset gallery belt scrappers	4 hrs	3/12/2010			Epperson	
275	Reset scrapers on C-4	2 hrs	3/12/2010			Epperson	
276	Reset scrapers on C-9	2 hrs	3/12/2010			Epperson	

ITEM #	Electrical Outage work	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
277	Inspect and PM SO1 & SO2	4 hrs	3/9/2010			GE	
278	Install Automatic bus tie for TG2 rectifier	12 hrs	3/9/2010				
279	Add breakers to both TG1 & TG2 UPS breaker panels in control room	8 hrs	3/9/2010				
280	Inspect and PM TRO1 transformer & all associated components	4 hrs	3/9/2010			GE	
281	Inspect and PM BO1 & all associated components	4 hrs	3/9/2010			GE	
282	Change both GE electrical monitor power source to the UPS back up power	8 hrs	3/9/2010				
283	Install Automatic bus tie for TG1 rectifier	12 hrs	3/10/2010				
284	Change out TR103 transformer	12 hrs	3/10/2010				
285	Inspect & PM 1152 breaker and TR101 transformer 4160KV	3 hrs	3/10/2010			GE	
286	Inspect & PM 2152 breaker and TR102 transformer 480V	3 hrs	3/10/2010			GE	
287	Inspect & PM 3152 breaker and TR103 transformer 480V	3 hrs	3/10/2010			GE	
288	Inspect & PM 4152 breaker and TR108 transformer 480V	3 hrs	3/10/2010			GE	
289	Inspect and PM associated breakers for TR101 4160KV	6 hrs	3/11/2010			GE	
290	Inspect and PM associated breakers for TR103 480V	12 hrs	3/11/2010			GE	
291	Inspect and PM associated breakers for TR102 480V	12 hrs	3/11/2010			GE	
292	Inspect and PM associated breakers for TR106 480V	12 hrs	3/12/2010			GE	
293	**TG1 Repairs work**						
294	Install new excitation brush rigging	48 hrs	3/9/2010			Cutsforth	
295	CT & PT inspection	8 hrs	3/9/2010			GE	
296	Clean No.1 Generator Hydrogen coolers	6 hrs	3/11/2010			Conco	
297	**TG2 Repair work**						
298	Install new excitation brush rigging	36 hrs	3/9/2010			Cutsforth	
299	CT & PT inspection	8 hrs	3/9/2010			GE	

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ITEM #	Common equipment contractor repairs	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
245	CMN on site to setup for vibrating conveyor liner replacement	1 day?	3/8/2010			CMN	
246	Disconnect chain on gallery belt gear box	12 hrs	3/9/2010				
247	Cooling tower overall inspection	37 hrs	3/9/2010				
248	Remove Gallery belt	8 hrs	3/9/2010			Epperson	
249	Repair gallery belt skirting	96 hrs	3/9/2010				
250	Change out No.1 circ pump & motor	36 hrs	3/9/2010			Eclipse	
251	Replace vibration conveyor liner # 2	96 hrs	3/9/2010			CMN	
252	Replace vibration conveyor liner # 3	96 hrs	3/9/2010			CMN	
253	Remove old C-1 belt	8 hrs	3/9/2010			Epperson	
254	Replace bad rollers on C-1	24 hrs	3/9/2010			Epperson	
255	Vacuum debris & material out of cooling tower sump	48 hrs	3/9/2010			Veolia	
256	Clean No.1 surface condenser tubes	12 hrs	3/9/2010			Conco	
257	Remove old belt C-9	4 hrs	3/9/2010			Epperson	
258	Relag head pulley on gallery belt	12 hrs	3/9/2010			Epperson	
259	Remove old belt C-4	4 hrs	3/9/2010			Epperson	
260	Replace Gallery belt gear box and coupling	12 hrs	3/9/2010				
261	Reset scrapers on C-1 belt	2 hrs	3/9/2010			Epperson	
262	Replace bad rollers on gallery belt	12 hrs	3/10/2010			Epperson	
263	Replace bad rollers on C-4	8 hrs	3/10/2010			Epperson	
264	Replace bad rollers on C-9	8 hrs	3/10/2010			Epperson	
265	Relag both upper take-up bend pullies on Gallery belt	8 hrs	3/10/2010			Epperson	
266	Clean No.2 surface condenser	12 hrs	3/10/2010			Conco	
267	Install new belt and vulcanize C-1 belt	12 hrs	3/11/2010			Epperson	
268	Make tower sump concrete repairs	48 hrs	3/11/2010			Lou Arpino	
269	Install new belt and vulcanize gallery belt	24 hrs	3/11/2010			Epperson	
270	Replace take-ups on C-12	8 hrs	3/12/2010			Epperson	
271	Repair skirting on C-1 belt	12 hrs	3/12/2010			Epperson	
272	Install new belt and vulcanize belt C-4	12 hrs	3/12/2010			Epperson	
273	Install new belt and vulcanize belt in C-9	8 hrs	3/12/2010			Epperson	
274	Reset gallery belt scrappers	4 hrs	3/12/2010			Epperson	
275	Reset scrapers on C-4	2 hrs	3/12/2010			Epperson	
276	Reset scrapers on C-9	2 hrs	3/12/2010			Epperson	

ITEM #	Electrical Outage work	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
277	Inspect and PM SO1 & SO2	4 hrs	3/9/2010			GE	
278	Install Automatic bus tie for TG2 rectifier	12 hrs	3/9/2010				
279	Add breakers to both TG1 & TG2 UPS breaker panels in control room	8 hrs	3/9/2010				
280	Inspect and PM TRO1 transformer & all associated components	4 hrs	3/9/2010			GE	
281	Inspect and PM BO1 & all associated components	4 hrs	3/9/2010			GE	
282	Change both GE electrical monitor power source to the UPS back up power	8 hrs	3/9/2010				
283	Install Automatic bus tie for TG1 rectifier	12 hrs	3/10/2010				
284	Change out TR103 transformer	12 hrs	3/10/2010				
285	Inspect & PM 1152 breaker and TR101 transformer 4160KV	3 hrs	3/10/2010			GE	
286	Inspect & PM 2152 breaker and TR102 transformer 480V	3 hrs	3/10/2010			GE	
287	Inspect & PM 3152 breaker and TR103 transformer 480V	3 hrs	3/10/2010			GE	
288	Inspect & PM 4152 breaker and TR108 transformer 480V	3 hrs	3/10/2010			GE	
289	Inspect and PM associated breakers for TR101 4160KV	6 hrs	3/11/2010			GE	
290	Inspect and PM associated breakers for TR103 480V	12 hrs	3/11/2010			GE	
291	Inspect and PM associated breakers for TR102 480V	12 hrs	3/11/2010			GE	
292	Inspect and PM associated breakers for TR106 480V	12 hrs	3/12/2010			GE	
293	**TG1 Repairs work**						
294	Install new excitation brush rigging	48 hrs	3/9/2010			Cutsforth	
295	CT & PT inspection	8 hrs	3/9/2010			GE	
296	Clean No.1 Generator Hydrogen coolers	6 hrs	3/11/2010			Conco	
297	**TG2 Repair work**						
298	Install new excitation brush rigging	36 hrs	3/9/2010			Cutsforth	
299	CT & PT inspection	8 hrs	3/9/2010			GE	

SPRING 2010 TASK LIST

ITEM #	Common Mechanical Inhouse repair work (ET)	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
300	Change oil in all Cooling tower gear boxes	24 hrs	3/9/2010			Ephraim Taylor	Stage Drums and Equip. 3-3-2010
301	Help Dan pan install new tower suction screens	12 hrs	3/9/2010			Dale Eggleston	
302	Acid flush Plate frame coolers	12 hrs	3/9/2010			Dan Penn	
303	Help Dan Penn install cooling tower suction screens	12 hrs	3/9/2010			Dan Penn	Maint. Can assist as needed
304	Remove lids top and bottom covers on the TG1 generator hydrogen coolers	8 hrs	3/8/2010			Chuck Reece	

ITEM #	Common Operations task	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
305	Drain, open and tagout for inspect Dilution tank	8 hrs	3/9/2010			Bernard Coley	
306	Drain, open and tagout out for inspect Slurry tank	8 hrs	3/10/2010			Bernard Coley	
307	Install new tower screens	12 hrs	3/9/2010			Dan Penn	
308	Drain, open and tagout No.1 surface condenser	4 hrs	3/8/2010			Nathan Forshier	
309	Drain, open and tagout No 2 surface condenser	4 hrs	3/8/2010			Nathan Forshier	
310	Drain cooling tower sump and tagout entire tower	16 hrs	3/8/2010			Keith Miser	
311	Drain open and tagout for inspection of internal components # 1 DA	8 hrs	3/8/2010			Charlie Wilson	
312	Inspect suction screens on the plate frame cooling pumps	24 hrs	3/11/2010			Nathan Forshier	
313	Pressure wash C-1 structure and rollers	8 hrs	3/9/2010			John Duncan	
314	Pressure wash C-4 structure and rollers	8 hrs	3/9/2010			John Duncan	
315	Pressure wash C-9 structure and rollers	8 hrs	3/9/2010			John Duncan	
316	Pressure wash gallery belt structure and rollers	12 hrs	3/9/2010			Steven Boles	
317	Clean up under all belt conveyors ground floor	12 hrs	3/9/2010			Laborers	

ITEM #	Operation's Electrical Distribution	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
318	Turn on TG1 DC oil pump	0.25 hrs	3/8/2010			Pete Moore	
319	Shut down all 480V & 4160KV equipment on the TR01 side	0.25 hrs	3/8/2010			Pete Moore	
320	Open TR102 breaker, lockout and tag(2152)	0.25 hrs	3/8/2010			Pete Moore	
321	Open TR103 Breaker, lockout and tag (3152)	0.25 hrs	3/8/2010			Pete Moore	
322	Close in back-up transform to both TR102 &103	0.25 hrs	3/8/2010			Pete Moore	
323	Ensure TG1 AC lube oil pump comes back on.	0.25 hrs	3/8/2010			Pete Moore	
324	Open B01 main incoming breaker Lock & tag	0.25 hrs	3/8/2010			Pete Moore	
325	Open SO1 & SO2 main incoming switches lock and tag	0.25 hrs	3/8/2010			Pete Moore	
326	Open TR106 breaker , lock and tag (4152)	0.25 hrs	3/8/2010			Charlie Wilson	
327	Open TR101 breaker & lock and tag (1152)	0.25 hrs	3/8/2010			Charlie Wilson	
328	TR01 side is locked down for GE to preform breaker Maint.	0.1 hrs	3/8/2010				

ITEM #	Outage Valve Work	Planned Duration	Scheduled Start	Completed Yes	Completed No	Assigned To	COMMENTS
329	No.2 cooling tower circ pump discharge valve						
330	50LB header low point drain No.2TG side	4 hrs	2/6/2010				
331	Boilers 1&2 main steam header drains	4 hrs	2/6/2010				
332	No.2 south steam drum safety	4 hrs	2/6/2010				
333	No.2 boiler ERV	4 hrs	2/6/2010				
334	No.2 boiler superheat safety	4 hrs	2/6/2010				
335	No.2 north drum safety	4 hrs	2/6/2010				
336	No.2 SDA dilution check valve (prior to 2-FCV831)	4 hrs	2/6/2010				
337	TG2 before and after seat drain	4 hrs	2/6/2010				
338	TG2 main steam auto header lead drain	4 hrs	2/6/2010				
339	Boiler 2 primary superheat atemperator	4 hrs	2/7/2010				
340	No.3 superheat safety	4 hrs	2/7/2010				
341	Repair flange leak on TG1 main steam header auto drain OGPL	4 hrs	2/7/2010				
342	Replace drain valves on TG2 main steam header on by # 2 bypass condenser PRV	4 hrs	2/7/2010				
343	Repair steam leak on TG1 level switch pot	4 hrs	2/7/2010				

Attachment 2

Attachment 2

Timeline, including excerpts from Luke Koon's monthly work logs

Timeline Evaluating Options for Supplemental Power

Winter / Spring 2009 - concerns over low capacity led County and Veolia to begin exploring options for auxiliary generation to maintain capacity above 70%.

February 9, 2009 - Luke Koon work log
Luke Koon notified David Gammon that portable generators will be needed to supply power while PEF performs their outage because the WTE has to be isolated from the grid during this period, and inquired as to whether PEF would cover the rental cost for these generators. "Called David Gammon to discuss the PEF outage and payment of costs for portable generators. I don't think PEF is going to reimburse county for this cost."

February 19, 2009 - Luke Koon work log
Meeting with Veolia to review schedule and proposal to split CIP work on boiler #2 into two phases. "Meeting with Veolia (C. Neu), Bob and Kelsi to review Veolia proposal for replacement of boiler (CP Exhibit #2) components starting in late March, complete CIP work (boilers/grates) for boiler #1 starting in October and replacement of #2 grate system in early 2010. Will review capacity impacts and comment."

February 27, 2009 - Luke Koon work log
Luke Koon contacts PEF to explore option of purchasing electricity from another QF to supplement our capacity commitments. "I call David Gammon today to discuss the possibility of the County purchasing electricity from another QF facility with re-sale to PEF at our rates, this is to keep our 12 month capacity rolling average out of the danger zone. David advised that other facilities have made this request in the past and their response has always been no, but he will run it up the flag pole to see if their position has changed."

March 3, 2009 - email from Tamara Waldmann (PEF)
PEF advises that PPA is specific as to delivery point being only the WTE facility and that our request is outside the terms of the agreement.

March 3, 2009 - Luke Koon work log
"Discussed capacity issues with Progress Energy and what the county is proposal to brace up low rolling averages. PEF says the PPA is very specific in that the only delivery point for energy generation is the WTE facility."

March 8, 2009 - email from Joe Cascio (CDM)
CDM advises they have evaluated package boiler application at facility, contact with Nationwide Boiler Inc. indicates this is a viable option, but they would not have units available until May / June. There are other vendors that might have earlier availability.

March 11, 2009 - email from Leo Lakowski (Veolia)
Veolia provides summary of options for auxiliary power generation and reducing parasitic loads being evaluated. Options include diesel and gas fired electric generation, will add package boilers to consideration.

Note: Portable generators were used for the period from March 23 - March 28, 2009.

Summer 2009, Discussions resume on bringing in auxiliary power to cover fall outage period.

July 14, 2009 - WTE Monthly Operations Meeting minutes
County, Veolia and CDM agreed to schedule task team meeting for July 15 to work on plan to maintain capacity.

July 15, 2009 - Luke Koon work log, meeting notes
"Meeting with CDM and Veolia to discuss various potential way to increase net electrical generation. Veolia will supplement natural gas into the combustion process during low trash levels and periods when wet trash restrict maximum steam load. Veolia will also investigate the possibility of adding portable generators (5-6 MW) to offset inhouse load requirements and add to net." Internal meeting held to discuss various options for maintaining/increase of capacity during construction period/s and low generation

July 15-22, 2009 - Luke Koon work log
Review data from spring 2009 and evaluate options to pursue

July 23, 2009 - Luke Koon work log
Decision has been made to utilize portable generators, meet with Ring Power to work on details. "Attended meeting with Veolia, CDM and Ring Power to discuss adding additional electric generation capacity to the facility."

July 23, 2009 - meeting notes
Ring Power informs us during meeting they have 8 units readily available, 2 in Tampa and 6 in St Augustine, 1 day required to setup on-site

July 24, 2009 - email from Yoon Chae (Veolia)
Establish overall projected cost for third party engineering, generator rental and fuel

July 24, 2009 - email from Roger Koehler (Veolia)
Confirmed existing contract for fuel purchase from Hess, also evaluating other suppliers to see if we can obtain better pricing.

July 29, 2009 - email from Roger Koehler (Veolia)
Verification of existing contract with Ring Power and Veolia Solid Waste.

July 29, 2009 - Luke Koon work log
Discussed proposed portable generator program with David Gammon. "KO [Kelsi Oswald] and I call David Gammon of PEF to advise him of the need to add supplemental electrical generation for the facility to support CIP projects and to prevent the county from dropping below the 70% for committed capacity. We proposed temporary diesel generators or purchasing additional electricity from PEF. David suggest we look at doing a partial force majeure (reducing our commitment over a short period of time)."

July 31, 2009 - meeting notes
Meeting held with Ring Power to review proposal, details for tie-in, and firm up availability of required generators.

August 3, 2009 - Luke Koon work log
"Talked with David Gammon of Progress Energy who advised that PEF would consider a committed capacity reduction from the County for a period of time. I advised David that we were suggesting a reduction of 18.25 MW commitments for about eight months. David requested that we send him our request ASAP so he could get the ball rolling on his end."

August 4, 2009 - correspondence
Received formal proposal with cost from Ring Power

August 6, 2009 - Luke Koon work log
"Finalized draft letter to PEF requesting capacity commitment reduction and send out for comments."

August 11, 2009 - Luke Koon work log, correspondence
"We did get the letter sent to Progress today requesting a temporary capacity commitment reduction. I talked to David Gammon who advised he will try to get the LOU out asap (day or two) and we can start the reduction on September 1st, even though the BCC has not yet acted."

September 8, 2009 - Luke Koon work log
"Advised [Greg Hart - PEF] we will be sending notice to PEF tomorrow as we expect the BOCC to approve this afternoon."

September 8, 2009 - Board of County Commissioners meeting agenda
Board of County Commissioners approves LOU with PEF and contract amendment with Veolia in support of temporary capacity reduction.

September 9, 2009 - Luke Koon work log, correspondence
"Finalized and sent curtailment request letter to Progress Energy early this am. We will start the partial curtailment on Sept. 15th."

Projected Schedule if County had not decided to enter into agreement with PEF

August 5-6, 2009
Scheduled to issue purchase order to Ring Power

August 10-15, 2009
Scheduled to mobilize equipment, install designed tie-ins

August 16, 2009
Scheduled to energize portable generators

Attachment 3

Attachment 3

This attachment includes documentation supporting questions 3, 5 through 7, and 9. The portable generator program was being managed through Ring Power; MJM Electric, Inc. was a subcontractor to Ring Power for this project and Carastro & Associates, Inc. was a subcontractor to MJM Electric.

Ring Power

Generator specifications (Q5, Q9)

Ring Power Quote - documentation of pricing, (Q3, Q5, Q6, Q8)

Follow-up Correspondence - verification of equipment availability and pricing adjustment for early termination (Q3, Q5, Q7, Q9)

Hess contract for fuel purchase and pricing documentation (Q3, Q6, Q8)

MJM Electric Quotation with Scope of Work - documentation that planning for this project had been completed and County was ready to mobilize (Q3, Q6, Q8); also includes pricing for switchgear.

Carastro & Associates

Email (07/30/09) - documentation of engineering in support of portable generator program (Q3)

Conference Call notes (07/31/09)- documentation of engineering in support of portable generator program (Q3, Q5)

NOTE: July 30 email indicates minimum of 4 weeks for mobilization; this is due to need to perform relay coordination study and estimated 6 week timeframe to obtain switchgear; please note on Graybar quote included with MJM quotation that MJM identified equipment that was available within 7-day time period, and that no coordination study was required based on 480v installation (conference call notes)

TAW invoice for previous generator rental - supporting documentation that we have successfully used portable generators for in-house power in the past

Russell D Waldbesser/EMAIL
07/20/2009 04:27 PM

To "Cascio, Joseph N." <casciojn@cdm.com>@ONYX
cc Christopher.Neu@veoliaes.com, "Crellin, William" <CrellinWR@cdm.com>, Giovanni.Marcusa@VeoliaES.com, "Oswald, Kelsi" <koswald@co.pinellas.fl.us>,
bcc
Subject Re: FW: XQ2000 Generator Specs

Some things to consider is the length of time the generators will be in service, if for a long period of time I do not think the cables should lay on the ground like we do during a week outage
Will we need a transfer switch or disconnect line side of transformers
Not all portable generators have a synch scope
What is the response time from the vendor for an emergency call if we have problems with the generators
Last outage we connected at the low voltage side of the transformers and removed the shunts or the bus bar depending what transformer we connected the generators to
We have transformers connected 4-wire and 3-wire on the 480v side

Russell Waldbesser
Plant Engineer
Veolia Pinellas ES Inc
3001 110th Avenue N
ST.Petersburg FL 33716

727-572-9163 ex15
russell.waldbesser@veoliaes.com

"Cascio, Joseph N." <casciojn@cdm.com>
07/20/2009 09:34 AM

To <Christopher.Neu@veoliaes.com>, <lkoon@pinellascounty.org>, "Oswald, Kelsi" <koswald@co.pinellas.fl.us>
cc "Crellin, William" <CrellinWR@cdm.com>, "Strobridge, Daniel" <StrobridgeDE@CDM.com>, "Stoller, Paul" <StollerPJ@cdm.com>, <loream@cdm.com>, <Giovanni.Marcusa@VeoliaES.com>, <russell.waldbesser@veoliaes.com>
Subject FW: XQ2000 Generator Specs

To All:

In speaking with two local Ring Power representatives on the availability and applicability of supplemental generation for the Pinellas RRF, the following is offered:

Attached is a spec sheet for a 2MW class generator set.
Multiple diesel powered units in the 1MW to 2MW range are readily available.
Each unit has three associated ratings: Stand-by, Primary, and Continuous (the ratings associated with a 2MW generator are 2MW, 1.825MW and 1.640 MW respectively).
2MW units are sound attenuated and mounted on 40' x 8' trailers with 1,250 fuel tanks.

2,500 auxiliary fuel tanks are available for lease.
Fresh diesel fuel (no algae) is critical to reliable operations of the generator sets.
At 1.7MW the unit will consume approximately 120gph.
A rough estimate of the monthly lease cost for a 1MW unit is $20,000.
Units with extended rental periods may apply the rental fees toward unit purchase.
Ring Power is capable of turnkey operation including: preliminary survey, engineering, transportation, setup, hookup, fueling, and decommissioning.
Ring Power forecasts they can have units operating within 2 weeks.

Other areas of consideration:

Each unit is limited to the electrical capacity of the system into which it will be connected.
Due to the potential fault current contributions from the generator sets (in conjunction with the system's available fault current), an assessment of the interrupt/withstand ratings of the circuit components will need to be performed.
Arc Flash capabilities may change on several electrical systems thereby altering the level of minimum Personal Protective Equipment (PPE).
Is there a benefit to remote start/stop capability?

Please let me know if you have any questions or require additional information.

Regards,
Joe Cascio

-----Original Message-----
From: Alan.Obal@RingPower.com [mailto:Alan.Obal@RingPower.com]
Sent: Thursday, July 16, 2009 2:03 PM
To: Cascio, Joseph N.
Subject: XQ2000 Generator Specs

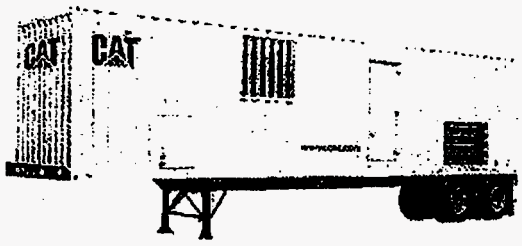
Hi Joe, Attached is a spec sheet for the newer Caterpillar Model XQ2000 power modules.

Please feel free to call with any questions.

Thank You,
Alan Obal
Cell # 727-639-0599

(See attached file: XQ2000 3516B Rental Spec - ISO.pdf)

XQ2000 3516B Rental Spec - ISO.pdf



XQ2000 (3516B) UTILITY POWER MODULE SOUND ATTENUATED

480 V, 60 Hz, 1825 EKW PRIME

FEATURES

EMISSIONS AND NOISE

- Meets most worldwide emissions requirements without after treatment. Low noise to achieve a noise pressure of only 75 dB(A) at 15 meters.

COMPLETE SOLUTION WITH ATTACHMENTS

- Wide range of rugged features, system attachments, factory designed, selected and tested at 60 Hz. **Fully Prototype Tested** with certified torsional vibration analysis and actual noise measurements available.

ENGINE

- Reliable, rugged, Caterpillar 3516B diesel engine.
- V16, 4 stroke-cycle, turbocharged-Aftercooled.
- Worldwide industry leader.
- Designed for maximum performance and minimum fuel consumption.

GENERATOR

- Exclusive Caterpillar SR4B generator, performance and design matched to Caterpillar 3516B engine.
- Single bearing, Form Wound, 825 Frame, 6 lead.
- Permanent magnet excitation with Caterpillar CDVR digital voltage regulator.
- Optimum winding pitch for least total harmonic distortion.

WORLDWIDE PRODUCT SUPPORT

- Worldwide parts availability through your Caterpillar dealer, with over 1,800 dealer branch stores operating in 166 countries.
- Caterpillar dealer services technicians are trained to service every aspect of your electric power generation system.
- Customer Support Agreements offer back-to-back services from scheduled inspections and preventive maintenance to total maintenance and repair contracts.

GENERATOR SET & CONTAINER

- Cooling system 43C ambient operating & vertical discharge radiator for close proximity to buildings.
- Industry standard 40 foot (12 m) container. Interior walls and ceiling are insulated with 4 in (100 mm) of acoustic glass and covered with perforated metal sheet for a durable interior wall surface. Floor of container is insulated with acoustic glass and covered with galvanized steel.
- Three lockable personnel (padlock) doors are provided with sound attenuation and double sealed. One door is located on each side of the engine for service and one on the container left side to access the control room. Includes Stainless steel hardware & hinges and panic release.
- External access door provided for bus bars and auxiliary connections for external power source feeding (jacket water heater, battery charger, space heater in generator, switchgear space heater, A/C lighting and sockets).
- Convenient external lockable connections for fuel.
- Fuel transfer system.
- 24 VDC interior lights with 60 minutes timer in switchgear room and in engine room.
- 1,250 Gals (4,731 L) fuel tank with cooler (part of the radiator), primary filter water separator.
- 30 Gals (110 L) lube oil make up tank (gravity) with manual fill from interior.
- Delivered fully tested, ready to operate.
- Two 4.5 kg (10 lb) carbon dioxide fire extinguisher bottle mounted on wall.
- Meets or exceeds specifications: ISO 3046, IEC 34, ISO 8528, EGSA101P, JEM1359, AS1359, AS2789, BS4999, NEMA MG1-22

FEATURES (Continued)

SWITCHGEAR & CONTROLS

- Caterpillar Utility paralleling switchgear is intended for automatic or manual paralleling with a utility power source as a load management system, with provisions for standby operation feeding an isolated load network. Modes of operation are field configurable and include:
  - Single Unit Island Mode.
  - Multiple Unit Island Mode (up to 10 units).
    - Includes Load Sense / Load Demand control.
    - Load sharing capability is provided via network communication.
  - Single Unit Utility Parallel Mode.
    - Automatic paralleling.
    - Selectable for Import / Export control. (Requires 4-12-20 mA customer input.)
- Convenient operator interface
  - 6" Touch screen graphic display
  - Graphical one-line diagrams.
- Modules can operate in groups up to 10 with all communications synchronizing and load sharing between units by datalink for quick and convenient setup. (Max cumulative distance 1500 ft)
- Protection includes 3000A Generator circuit breaker with 100kA Interrupt Capability, extensive protective relays and internal power distribution.
- Convenient customer connections for power and fluids.
- Request to run signal (customer input)

FACTORY INSTALLED STANDARD EQUIPMENT

Feature	Benefits
Caterpillar 3516B Engine	Air cleaner with service indicator Batteries Primary & secondary fuel filters with service indicators; lubricating oil pump, fuel priming pump Lube oil make-up system Critical Grade silencers with side inlet and end outlet Radiator; jacket water heater (two elements 4500 W) Service meter; standard eight-gauge instrument panel Electronic ADEM® III Governing System The ADEM® III control is designed to control/interface Electronic Unit Injector (EUI) equipped engines. The ADEM® III controller is composed of the ADEM III® ECM, control software, sensors, actuators, fuel injectors, and interface to the generator system. All ADEM® III controllers are designed to survive the harshest environments. Environmentally sealed, die-cast aluminum housing isolates and protects electronic components from moisture and dirt contamination. Rigorous vibration testing ensures product reliability and durability. SIMPLE SERVICING - Each ADEM® III system works in combination with the Caterpillar ET service tool software to keep the engine operating at peak performance. - Displays measured parameters. - Retrieves active and logged event codes documenting abnormal system operation. - Performs calibrations and diagnostic tests. - Supports flash programming of new software into the ADEM® III ECM SELF DIAGNOSTICS - Each ADEM® III ECM has a full compliment of self diagnostics. The ECM can detect faults in the electrical system and report those faults to the service technician for quick repair.

FACTORY INSTALLED STANDARD EQUIPMENT (Continued)

Feature	Benefits
Caterpillar SR4B Generator	480 Volt SR4B brushless, 825 frame Permanent magnet excited, three-phase with digital voltage regulator Class H insulation operating at class F for extended life Single bearing, 6 lead star connected Three phase voltage sensing Space heater
Generator Set EMCP®3.3 Local control panel	Generator mounted EMCP®3.3 local panel Provides MODBUS datalink to engine and generator Convenient service access for Caterpillar service tools (not included) The Caterpillar EMCP®3.3 places fully featured power metering, protective relaying and engine and generator control and monitoring at your fingertips. Integration with the CDVR provides enhanced system performance. Ability to view and reset diagnostics on J1939 Network modules via the control panel removes the need for a separate service tool for troubleshooting. Fully featured power metering, protective relaying, engine and generator parameter viewing, and expanded AC metering are all integrated into this controller. Real-time clock allows for date and time stamping of diagnostics and events. OPERATOR INTERFACE - Graphical display with positive image, transflective LCD, adjustable white backlight/contrast. - Two LED status indicators (1 red, 1 amber). - Three Engine Control Keys and Status Indicators (Run/Auto/Stop). - Lamp Test Key. - Alarm Acknowledgement Key. - Display Navigation Keys - Two Shortcut Keys: Engine Operating Parameters and Generator Operating Parameters.
Switchgear controls	Caterpillar Utility paralleling switchgear is intended for automatic or manual paralleling with a utility power source as a load management system, with provisions for standby operation feeding an isolated load network. Modes of operation are field configurable and include: - Single Unit Island Mode - Multiple Unit Island Mode · Includes Load Sense / Load Demand control · Load sharing capability is provided via network communication - Single Unit Utility Parallel Mode. · Automatic paralleling · Selectable for Import / Export control · If Import control is selected a 4-12-20mA signal is required and will be provided by others that is scalable to the utility contribution

FACTORY INSTALLED STANDARD EQUIPMENT (Continued)

<table>
<tr><th>Features</th><th>Benefits</th></tr>
<tr><td>Switchgear controls (Continued)</td><td>INCOMING UTILITY BREAKER STATUS CIRCUIT - Circuit to accept customers contact from remote utility disconnect device. Customer to provide a normally open form "a" contact to indicate when the local load network is connected to the utility grid.
UTILITY TRANSFER TRIP CIRCUIT - Circuit accepts input (normally open dry contact) from customer's system protective relay(s) or other controlling device. Operation of contacts causes tripping of the generator circuit breaker via the generator lock-out relay (ANSI device 86) and places the engine in cooldown mode. Circuit is disabled when operating in single unit or multiple unit island modes.</td></tr>
<tr><td>Switchgear monitoring</td><td>Graphical mimic one line that shows generator with its respective circuit breaker in a one-line representation of the system. The graphics utilize black and white indicators and bar graphs while actively displaying the following information:
- Utility CB Open/Closed. Input contacts provided by others.
- Utility kW. A 4-12-20mA signal required and provided by others that is scalable to the utility contribution.
- Generator CB Open/Closed/Tripped
- Generator Volts/Amps/kW/Frequency
- Engine Stopped/Running/Cooldown/Pre-Alarm/Shutdown
- Engine ECS Position Off/Auto/Manual/Cooldown
- Utility Output kW
- System Summary Alarm
Display includes all alarms and values from local EMCP® panel via MODBUS® datalink plus monitoring and protection items in switchgear.
Event logging is also included with up to 500 stored events.
<u>Standard system local annunciation is also included</u>
<table>
<tr><td>Status, Light Only (Non-Latching)</td><td>Single Unit Island Mode</td></tr>
<tr><td>Multiple Unit Island Mode</td><td>Single Unit Utility Parallel Mode</td></tr>
<tr><td>Gen CB Open (Green)</td><td>Gen CB Closed (Red)</td></tr>
<tr><td>Gen Tripped</td><td>Gen ECS Not in Auto</td></tr>
<tr><td>Gen ECS in Auto</td><td>Emergency Mode</td></tr>
<tr><td>Alarm, Light and Horn (Non-Latching)</td><td>Low Fuel Main Tank</td></tr>
<tr><td>Gen Fail to Synch</td><td>Fuel system alarm</td></tr>
<tr><td>Shutdown Alarm, Light and Horn (Latching)</td><td>Processor Fault</td></tr>
<tr><td>Emergency Stop</td><td>Critical Low fuel Level</td></tr>
<tr><td>Rupture Basin</td><td>Gen Circuit Breaker Tripped</td></tr>
<tr><td>Gen Loss of Field</td><td>Gen Reverse Power</td></tr>
<tr><td>Gen Undervoltage</td><td>Gen Overvoltage</td></tr>
<tr><td>Gen Underfrequency</td><td>Gen Overfrequency</td></tr>
<tr><td>78/81 df/dt shutdown</td><td></td></tr>
</table>
</td></tr>
</table>

FACTORY INSTALLED STANDARD EQUIPMENT (Continued)

Feature	Benefits
Switchgear protection	Power Module switchgear on 3516B generator set. Switchgear consist of a Generator control cabinet (upper) and one Utility / AC Distribution cabinet (lower). Switchgear is built to meet UL Standards. Generator Circuit Breaker - UL Listed 3000A, 100kA interrupt capability, three pole, drawout, electrically operated, molded case circuit breaker. Display of EMCP3.3 faults, CDVR and ADEM®III provided by Modbus RTU PowerLynx Generator / Intertie Protective Relaying including Device 15 # Auto synchronizer Device 25 # Synchronizing check Device 27/59 # Under/Over voltage Device 32 # Reverse Power Device 40 # Loss of excitation Device 65 # Governor load sharing, soft loading control Device 78/81 Rate of change of frequency Device 90 # VAR/PF and cross current compensation controller Device 810/U # Under/Over frequency Two form C run contacts included for motor starters and motorized louvers AC distribution cabinet - Includes circuit breakers and distribution for motor starters, battery charger, fuel transfer pump, AC lighting, generator space heater, convenience receptacles, ventilation fans, motorized louvers, jacket water heaters
Switchgear connections	BUS BARS - Three phase, plus fully rated neutral, bus bars are silver-plated copper with NEMA standard hole pattern for connection of customer load cables. Bus bars are sized for full load capacity of the generator set at 0.8 power factor. Also includes ground bus, silver-plated copper, for connection to the generator frame ground and field ground cable. SHORE POWER CONNECTION BLOCK - 240 VAC shore power connections for jacket water heaters, generator space heater and battery charger. Includes fault protection and relays to de-energize jacket water heaters and generator space heater when engine is running.

AVAILABLE OPTIONAL EQUIPMENT

Feature	Benefits
Remote Software	Includes installed Ethernet modem, Ethernet switch and web server (supports up to 2 clients, if required additional clients can be added at additional cost) provides via Internet Explorer located on customer PC, data access.
Site Controller	Includes industrial PC and site PC software. Local communications, via Internet Explorer located on customer PC, provided to interface with touchscreen. Server software and Ethernet compatible touchscreen provided. This option is browser based with ability to view 1 to 10 individual units with Internet Explorer. From the customer PC you can launch a browser and look at each initial unit with the same views displayed at the local unit. The customer will be responsible for the Ethernet network (wiring, hubs, router, switches, etc.) between customer remote PC and multiple on site units.

SPECIFICATIONS for 60 Hz - 1825 EkW, 480 V -

CATERPILLAR SR4B GENERATOR

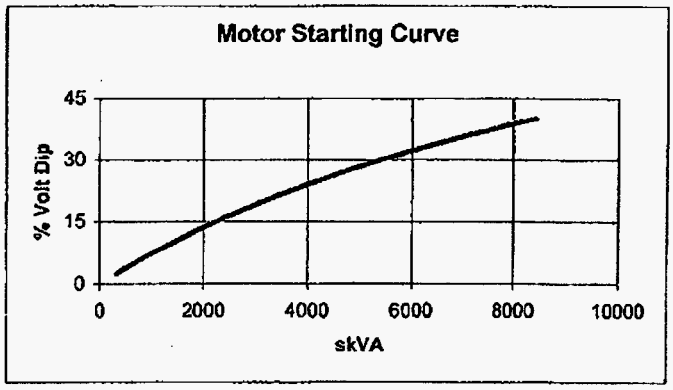
Voltage regulation	< ±0.5%
Voltage gain	Adjustable
Wave form	< 5% deviation
TIF	< 50
THD	< 3%
Enclosure	IP 22
Amperage	2743.6

Time Constants

	Seconds
T'do	6.6330
T'd	0.4643
T"do	0.0074
T"d	0.0064
T"qo	0.0057
T"q	0.0050
Ta	0.0438
Te	0.2225

Reactance Data

	per unit	Ohms
X"d	0.1347	0.0136
X'q	0.1229	0.0124
X'd	0.2178	0.0220
Xd	2.9981	0.3028
Xq	1.4732	0.1487
X2	0.1287	0.0130
X0	0.0079	0.0008



CATERPILLAR 3516B ENGINE

V-16, 4-stroke-cycle diesel
Bore – mm (in).....170 (6.7)
Stroke – mm (in).....190 (7.5)
Displacement – L (cu in).....69.0 (4210)
Aspiration..... Turbocharged – Aftercooled
Heater – kJ/kWh (Btu/kWh)..... 8977 (8509)

EkW Rating	1825	Frequency	60
Power Factor	0.80	Insulation	H
kVA Rating	2281	Poles	4
Duty (C)	105	Excitation	PM
Frame	825	Winding Type	Form
RPM	1800	Leads	6
Volts	480	Pitch	0.6667
Bearings	1	Phases	3
Conn.	STAR	Amperage	2633
Regulation (V)	< 0.5 %	TIF	< 50
Enclosure	IP 22	THD	< 3 %

DIMENSIONS & WEIGHTS

CONTAINER SHIPPING DIMMENSIONS

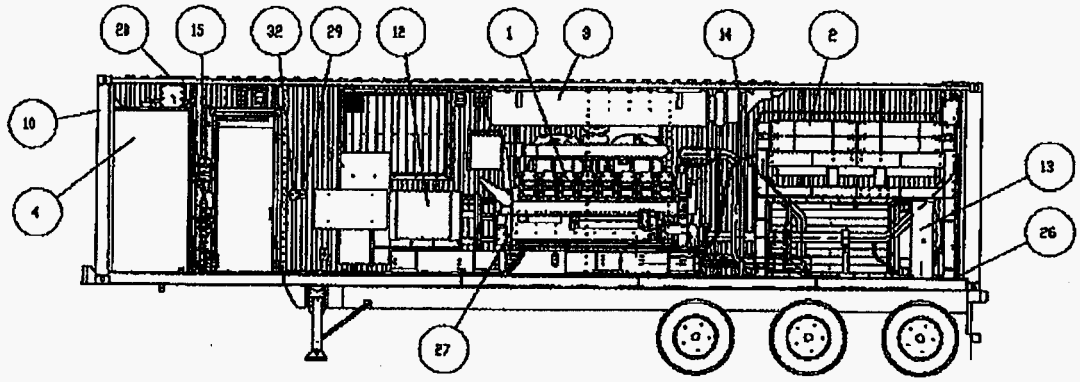
Length	12 192 mm	480 in
Width	2 438 mm	97.5 in
Height	2 896 mm	114 in

CONTAINER WEIGHT (WET):

32 688 Kg	72,000 lb

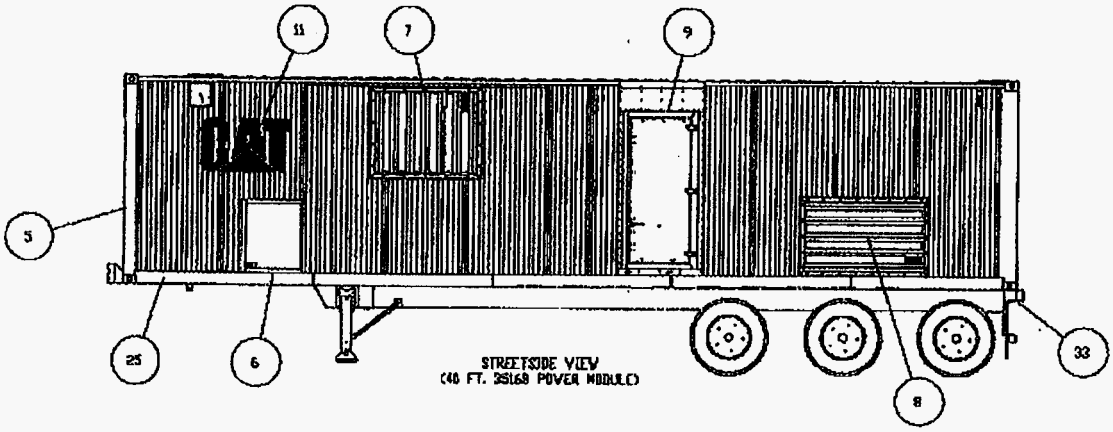
CONTAINER VIEWS:

Right side view
(Right side wall removed to show Interior components)



STREETSIDE VIEW (INTERIOR LAYOUT)
(40 FT. 3516B POWER MODULE)

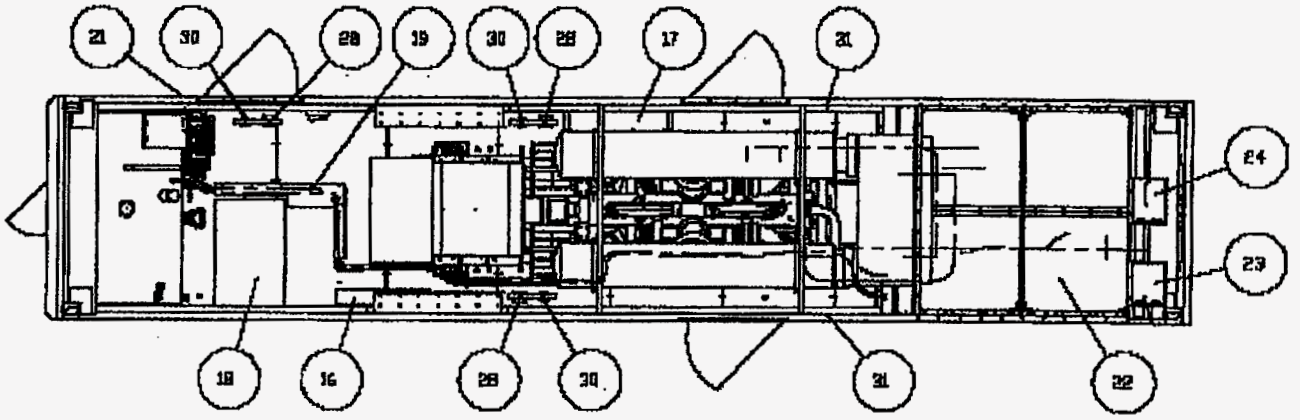
Right side view



STREETSIDE VIEW
(40 FT. 3516B POWER MODULE)

DIMENSIONS & WEIGHTS (Continued)

Top view
(Roof removed to show interior components)



TOP VIEW (INTERIOR LAYOUT)
(40 FT. 3516B POWER MODULE)

Legend

1	3516B GENSET- EPA CERTIFIED
2	51 SQ FT HORIZONTAL RADIATOR
3	CRITICAL GRADE MUFFLERS
4	1250 GAL FUEL TANK W/ TRANSFER SYSTEM
5	40FT ISO CONTAINER
6	LOAD CABLE ACCESS DOOR
7	ENGINE AIR INLET LOUVER
8	RADIATOR AIR INLET LOUVER
9	PERSONNEL ENTRANCE DOOR
10	EXTERIOR FUEL FILL DOOR
11	CAT DECALS AND LOGO
12	480V, 60 HZ GENERATOR
13	LUBE OIL MAKEUP SYSTEM
14	PARTITION WALL
15	FUEL/WATER SEPERATORS
16	CABLE BOX W/ BELLOWS
17	24V BATTERIES WITH WALKOVER GRATING
18	UTILITY COMPATIBLE SWITCHGEAR
19	STAINLESS STEEL FUEL LINES
20	FUEL PROBE ACCESS DOOR
21	FUEL DRAIN (1-1/2" NPT)
22	VERTICAL RADIATOR DISCHARGE
23	RADIATOR FILL (JW CIRCUIT)
24	RADIATOR FILL (AC CIRCUIT)
25	CHANNEL REINFORCEMENT
26	RADIATOR DRAIN LINES (1/2" NPT, 3/4" NPT)
27	OIL DRAIN
28	24V DC LIGHTS
29	24V DC TIMER
30	120V AC LIGHTS
31	4" ACOUSTIC PANELING
32	AC SWITCH & DUPLEX RECEPTACLE
33	3-AXLE CHASSIS (STD)

August 4, 2009

Mr. Christopher Neu
Veolia Environmental Services
3001 110th Ave North
St. Petersburg, FL 33716
Ph# 727-572-9163

Dear Chris,

I am pleased to submit the following proposal for your review.

Project: Temporary Power Generation
Pinellas County Waste to Energy Facility

(5) Caterpillar Model XQ2000 KW Power Modules
- Rated 2000 KW standby, 1825 KW Prime, 1640 KW Continuous
- Main circuit breaker, 277 / 480 volt, Wye
- 40' sound attenuated enclosure
- Trailer mounted with 1250 gallon on board fuel tank
- Paralleling switchgear

(4) 2500 gallon auxiliary fuel tanks, skid mounted
(4) 3000 Amp Manual Transfer switches

36,800 ft of 4/0 power cable, (736) 50' sections with Cam Lok ends

Rental Pricing:

Power Modules:	(4) Prime units:	$ 44,000.00 / Month (Each)
	(1) Spare Unit:	No charge
Fuel Tanks:	$ 1,000.00 / Month (Each)	
Transfer Switches:	$ 2,500.00 / Month (Each)	
Power Cable:	$ 38,400.00 / Month	

Total Monthly Rental Cost: $ 228,400.00

: 10421 Fern Hill Drive, Riverview, FL 33578 • PO Box 30169, Tampa, FL 33630-3169
TEL: 813-671-3700 • FAX: 813-671-2957 • URL: www.ringpower.com

Inbound Freight:	$ 5,000.00 (Budget price)
Return Freight:	$ 5,000.00 (Budget price)

Ring Power Service Tech for start up: $ 2,800.00 (based on normal business hours)
Start up includes training for Veolia personnel

PM Service: $ 2,500.00 per service (Each)

Rental Purchase Option:
The above equipment is available on our Rental Purchase Option Program in which 100% of the rental payments are applied toward the purchase price of the unit. Interest is accrued on the unpaid balance.

Notes:
Sales tax is not included in the rental rates
Installation and removal is not included in the rental rates
Engineering is not included in the rental rates
Diesel fuel is not included in the rental rates
Pricing is based on a minimum (6) Month rental
Veolia to provide 24 hour monitoring of all equipment

Insurance Requirement:
Veolia is responsible for providing an insurance certificate including liability coverage and property damage for rented/leased equipment. If a certificate is not provided there will be an additional monthly charge of 14% for our Fire, Theft, Vandalism Waiver.

Please feel free to call with any questions.
Best Regards,

Alan Obal
Ring Power Corporation
Power Systems Division
Cell # 727-639-0599

May 21, 2010

Mr. Chtistopher Neu
Veolia Environmental Services
3001 110th Ave North
St Petersburg, FL 33716

Project: Temporary Power Generation
Pinellas County Waste to Energy Facility
Ring Power Quotation Dated August 4, 2009

Dear Chris,

The above referenced quotation includes a monthly rental cost. The monthly cost would not have changed if the project was reduced from a (6) month rental to a (3) month rental.

Our Caterpillar Model XQ2000 Power Modules are capable of providing 1.7 MW for prime power applications. These units have been used successfully in numerous prime power applications similar to yours. Our proposal included (4) prime units and (1) standby (spare) unit. The standby unit was to provide reliability and also serve as a replacement unit during required maintenance of the prime units.

At the time of the proposal all (5) units were available for immediate shipment to the Pinellas County Facility.

Installation of the power modules was to be coordinated by MJM Electric, Inc.

Regards,

Alan Obal
Ring Power Corporation
Power Systems Division
Tampa, FL

Roger S Koehler/EMAIL
07/24/2009 10:38 AM

To Tom Murphy - CFO/EMAIL@ONYX
cc Christopher J Neu/EMAIL@EMAIL, Gary Smith/EMAIL@EMAIL, Steve S Passage/EMAIL@EMAIL, Tom Murphy - CFO/EMAIL@EMAIL, Yoon S
bcc
Subject Re: Natural Gas at Pinellas

Gary,

Here's the existing General Terms & Conditions we have in place with Hess which governs the Fixed Price contract. They agreed to the T&C's as marked.

The Solid Waste group uses almost all of the Fixed Price gallons - however the template would show that option if preferred (at current prices).

We typically find Marathon slightly more competitive in the Spot market - both have terminals in the Tampa area. Most of Hess's diesel in Florida is used in their retail stores - they aren't overly motivated to sell more - especially on the Gulf side. Let's see what their pricing suggests how motivated they are.


HESS Veolia FP Contract Tampa Mar 09.pdf


Hess Contract w Mark-ups.doc


Marathon Fact Sheet 2008.pdf

In both cases - the fuel would be delivered by Penn Tank lines or Klemm Tank lines in batches of 7500 gallons. Any facilities for rail or barge?

We could get a load in there with Mansfield Oil by the end of the day if it's that urgent - price would be about 3 cents higher. I think Hess could be in line by Monday unless that wanted an independent credit review. If the Pinellas liability are transferring to Solid Waste - it's probably not an issue.

Let's connect via phone to outline the opportunity and steps.

Please call when available, regards,

Roger

Roger Koehler
Vice President of Purchasing, North America
Veolia Environmental Services North America Corp.
125 South 84th Street, Suite 200, Milwaukee, WI 53214
tel: 414 778 7016 fax: 414 302 6007 cell: 414 839 2583
roger.koehler@veoliaes.com
www.VeoliaES.com

Tom Murphy - CFO/EMAIL@ONYX

HESS CORPORATION

CONTRACT DATE: 03/16/2009
SWAP NO. 15073

BUYER: MR. ROGER KOEHLER
VEOLIA ES SOLID WASTE INC.
125 SOUTH 84TH STREET, SUITE 175
MILWAUKEE, WI 53214
SOLD TO#: 534426
SHIP TO#: 534427
TELEPHONE: (414)778-7016
FAX: (414)302-6007

SELLER: MR. JOHN D. MCCONVILLE
HESS CORPORATION
1 HESS PLAZA
WOODBRIDGE, NEW JERSEY 07095
TELEPHONES: (732) 750-6463
FAX: (732) 750-6475

SELLER WILL SELL TO BUYER AND BUYER WILL PURCHASE, RECEIVE AND PAY FOR THE BELOW LISTED PRODUCT IN ACCORDANCE WITH THIS AGREEMENT. CONTRACT GALLONS WILL BE PICKED UP UNDER YOUR DELIVERED SHIP TO NUMBER. CONTRACT GALLONS MUST BE LIFTED DAILY IN A RATABLE FASHION.

PERIOD: MAY 1, 2009 – DECMBER 31, 2009

PRODUCT: ULSD PRODUCT CODE (P075)

VOLUME: 504,000 GALLONS (12 CONTRACTS)

PRICE & VOLUME PER MONTH AS FOLLOWS:

MONTH	VOLUME	PRICE
MAY	63,000 GALS.	$1.3733
JUNE	63,000 GALS.	$1.4118
JULY	63,000 GALS.	$1.4463
AUGUST	63,000 GALS	$1.4808
SEPTEMBER	63,000 GALS	$1.5262
OCTOBER	63,000 GALS	$1.5322
NOVEMBER	63,000 GALS	$1.5357
DECEMBER	63,000 GALS	$1.5417

ALL PRICES ARE EXCLUSIVE OF APPLICABLE TAXES OF ANY KIND (INCLUDING FEDERAL, STATE AND LOCAL USE, SALES, EXCISE, MERCANTILE AND GROSS RECEIPTS OR EARNINGS TAXES). INSPECTION FEES OR OTHER CHARGES, ALL OF WHICH SHALL BE BORNE BY BUYER. ANY TAXES, FEES OR OTHER CHARGES WHICH SELLER IS REQUIRED TO PAY OR COLLECT WITH RESPECT TO THE ULSD, ON THE PRODUCTIONS, MANUFACTURE, SALES, TRANSPORTATION OR DELIVERY THEREOF SHALL BE ADDED TO THE PRICE STIPULATED ABOVE AND PAID BY BUYER.

DELIVERY: F.O.B. TAMPA TERMINAL

PAYMENT TERMS: NET 10 DAYS FROM DATE OF DELIVERY.

GENERAL CONDITION OF SALE: ALL TERMS WILL BE AS SET FORTH IN SELLER'S GENERAL CONDITIONS OF SALE.

BUYER: VEOLIA ES SOLID WASTE INC.

BY: Richard Burke
~~ROGER KOEHLER~~
Richard Burke

TITLE: Treasurer

DATE: 3/16/09

SELLER: HESS CORPORATION

BY: John McConville
JOHN D. MCCONVILLE

TITLE: MANAGER, DISTRIBUTOR SALES

DATE: 3-16-09

HESS CORPORATION

Distributor Sales Agreement - General Conditions of Sale

This Distributor Sales Agreement is entered into as of 16 March, 2009 between Hess Corporation ("Seller") and Veolia ES Solid Waste, Inc. ("Buyer") (Each a "Party" and jointly "Parties").

The General Conditions of Sale herein apply to all sales of No. 2 Oil, Diesel Fuel, Gasoline and/or K-1 Kerosene (individually and/or collectively, "Product") by Seller to Buyer pursuant to a Petroleum Product Sales Agreement (each a "Product Agreement") signed by both Parties. If a conflict arises between the terms of the Distributor Sales Agreement and a Product Agreement, the Product Agreement will be controlling. All Product Agreements, together with the Distributor Sales Agreement, form a single, integrated agreement between the Parties ("Agreement").

1. **Delivery Quantities / Allocation Procedures**
   (a) Buyer is obligated to take delivery of the Contract Quantity that Seller makes available in any month ("Delivery Month") as set forth in the Product Agreement. Seller may reduce the Contract Quantity at any time for a Force Majeure event as set forth below.

   (b) If Buyer fails to take delivery of all or part of the Contract Quantity during any Delivery Month and the failure is not excused under the terms of the Agreement or by Seller's breach, then Seller will liquidate any remaining Contract Quantity for that month. If the market price of the Product at the time of liquidation is less than the Contract Price, then Buyer will be responsible to Seller for the difference ("Liquidation Charge"). If the market price of the Product at the time of liquidation is greater than the Contract Price, then Buyer will receive a credit from Seller for the difference. In addition, a transaction fee of $.0100 per gallon will be assessed on the remaining gallons and added to any Liquidation Charge.

   (c) To make quantities of Product available on an equitable basis to customers served from a terminal and to regulate its terminal operations as Seller deems appropriate, Seller reserves the right to schedule delivery of the Contract Quantity in any Delivery Month by specifying (i) loading hours and (ii) allowable daily, weekly, 10 day, or monthly maximum loadings for each customer ("Allocation Procedures"). Seller will give Buyer advance notice of the imposition of Allocation Procedures in such manner and within such time frame as Seller shall determine is necessary to effectuate compliance. If Buyer fails to comply with any Allocation Procedure imposed, Seller shall have the right to immediately cease all Product deliveries to Buyer for the duration of the period the Allocation Procedures are in effect.

2. **Payment Terms.** Payment terms are as set forth in the Product Agreement. Payment will be made at the office of Seller at 1 Hess Plaza, Woodbridge, New

Jersey, 07095, or elsewhere as designated by Seller.

3. **Financial Responsibility.** Seller's acceptance of the General Terms and any Product Agreement is conditioned on Buyer maintaining its creditworthiness during the term of the Agreement. If Seller determines in its good faith judgment that Buyer's credit has been materially impaired, Seller may require additional security ("Credit Assurance") for the payment of sums due under the Agreement, including collateral deposits, prepayments, letters of credit or other guaranty of payment or performance reasonably acceptable to Seller. Buyer agrees to furnish financial and credit information as requested by Seller. Any credit arrangements may be revoked by Seller at any time, When, in Seller's reasonable judgment, there is any doubt of Buyer's financial responsibility, or if Buyer fails to furnish credit information or provides false credit information, Seller may terminate this Agreement, suspend deliveries or decline to make further deliveries except for cash and any account of Buyer will immediately become due. The suspension of deliveries or the termination of this Agreement will be without prejudice to Seller's claim for damages and all rights of Seller are cumulative.

4. **Warranty.** SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING FITNESS FOR A PARTICULAR PURPOSE, EXCEPT THAT SELLER DOES PROVIDE THE LIMITED WARRANTY THAT THE NO. 2 OIL AND/OR DIESEL FUEL WILL BE OF MERCHANTABLE QUALITY, WILL COMPLY WITH APPLICABLE GOVERNMENT REGULATIONS AND THAT SELLER TITLE TO THE PRODUCT FREE AND CLEAR OF LIENS OR ENCUMBRANCES.

5. **Limitation of Liability.** Seller's liability hereunder, if any, is limited to replacement of Product supplied by it, provided that the market value of such Product makes Buyer whole. NEITHER PARTY WILL BE LIABLE TO THE OTHER UNDER THE AGREEMENT FOR CONSEQUENTIAL, INDIRECT OR PUNITIVE DAMAGES OR SPECIFIC PERFORMANCE, EXCEPT AS EXPRESSLY PROVIDED HEREIN.

6. **Force Majeure.** Neither Party will be liable to the other Party for failure to perform its obligations when the failure is due to causes not reasonably within the Party's control, and not caused by the Party's own negligence or misconduct ("Force Majeure"), but only for as long as and to the extent that performance is prevented or materially affected by Force Majeure. The Party claiming a Force Majeure event will notify the other Party in writing as soon as practicable and will use due diligence to remove the cause of the Force Majeure and resume performance under the Agreement. A Force Majeure event may be caused by breakdown or injury to facilities of Seller or those from whom Seller obtains Product, or other impairment or interference with Seller's supply including, but without limitation, unavailability of Product or the raw materials from which such Product is manufactured, or availability only at prices or under conditions which Seller, in its sole judgment, considers commercially unreasonable. Notwithstanding the foregoing, each Party acknowledges and assumes the risk that fuel market prices may fluctuate during

the term of the Agreement, possibly causing such Party to purchase or sell fuel pursuant to the Agreement at prices significantly higher or lower than prevailing fuel market prices. If one or more of the foregoing occurs or is continuing, and in Seller's reasonable judgment, does or will materially adversely affect Seller's ability to perform under this Agreement, Seller may, upon prior written notice to Buyer, terminate this Agreement with respect to undelivered quantities of Product. The notice will include an explanation of the reasons for termination. If Seller does not elect to terminate this Agreement, Seller will not be obligated to prorate Product deliveries hereunder, nor will Seller be obligated to deliver from a terminal, use a berthing, loading or unloading facility, type of carrier or manner of delivery other than those designated in the Product Agreement or, in the absence of any such designation(s), those customarily used in the performance hereunder, regardless of whether a commercially reasonable substitute method of, or arrangement for, delivery is available.

7. **Responsibility:** Title to, possession of and risk of loss in the Product will pass from Seller to Buyer at the outlet at Seller's loading rack ("Delivery Point"). As between the Parties, Seller will be deemed in exclusive control of the Product and responsible for any damage, injury, or charges occurring up to the Delivery Point, and Buyer will be deemed in exclusive control of the Product and responsible for any damage, injury, or charges occurring at and after the Delivery Point.

8. **Measurements and Inspection.** Quantities of Product delivered to Buyer's truck at Seller's loading rack will be determined by Seller's calibrated meters wherever in use, or by Buyer's certified truck calibration charts at point of delivery, or, where legally required, by certified weight measurement. Such certified calibration chart or true copy thereof must be on file with Seller's dispatcher prior to loading, or Seller's measurement will prevail.

9. **Motor Fuel Use: Indemnification of Seller and Warranty by Buyer**
(a) Buyer is aware that the Diesel Fuel is capable of being used as a motor fuel in vehicles for on-highway use, and that such use may be taxable or subject to other governmental charges. Buyer will indemnify and defend Seller against any assessments, claims, fines, penalties or interest, imposed or assessed against Seller by any agency on account of such taxes or other governmental charges on Diesel Fuel which later is sold by Buyer for ultimate use as a motor fuel in vehicles for on-highway use.

(b) Buyer warrants and represents to Seller that in the event the Diesel Fuel is later sold by Buyer for ultimate use as a motor vehicle fuel for on-highway use, Buyer will, as required by all applicable laws, timely pay all taxes and other governmental charges on all such Diesel Fuel.

(c) Buyer will comply with all applicable laws on use of Diesel Fuel as motor vehicle fuel.

(d) Buyer's indemnification, warranty and representation given hereunder will survive the termination of this Agreement.

10. **Indemnification:** In addition to the indemnification obligation of Buyer in Paragraph 9., Buyer will defend and indemnify Seller against all losses, costs and expenses, including court costs and reasonable attorney's fees, arising out of claims regarding personal injury or property damage from the Product, or other charges thereon which attach after title passes to Buyer (to the extent such claims are not due to Seller's negligence or willful misconduct). Seller will defend and indemnify Buyer against any losses, costs and expenses, including court costs and reasonable attorneys' fees, arising out of claims of title, personal injury or property damage from the Product or other charges thereon which attach before title passes to Buyer (to the extent such claims are not due to Buyer's negligence or willful misconduct).

11. **Notices:** All notices, demands or requests pertaining to the Agreement will be made in writing and may be delivered by hand delivery, first class mail (postage prepaid), overnight courier service or by facsimile, to the Party's address listed on the Product Agreement. Notices sent by facsimile will be deemed to have been received upon the sending Party's receipt of its facsimile's confirmation. Notice by overnight mail or courier will be deemed to have been received on the next business day after it was sent or such eater time as is confirmed by the receiving Party. Notice delivered by hand will be deemed to be received at the time it is delivered to an officer or to a responsible employee of the receiving Party. Notice via first class mail will be considered delivered three (3) business days after mailing.

12. **Assignment:** Neither Party will assign the Agreement in whole or in part without the written consent of the other Party, which consent will not be unreasonably withheld, conditioned or delayed; provided, however, that either Party may, without the consent of the other Party (and without relieving itself from liability hereunder) transfer or assign the Agreement to an affiliate or successor, in ownership or control, to all or substantially all of the assets of the Party whose creditworthiness is equal to or higher than that of such Party. Creditworthiness under this section is to be determined in a commercially reasonable manner by the non-transferring Party.

13. **Waiver/Cumulative Remedies:** No delay or failure by a Party to exercise any right or remedy to which it may become entitled herein will constitute a waiver of that right or remedy. All waivers must be in writing. All remedies will be without prejudice and in addition to any right of setoff, recoupment, combination of accounts, lien or other right to which any Party or any of its affiliates is at any time otherwise entitled (whether by operation of law or in equity, under contract or otherwise).

14. **Governing Law:** The Agreement will be governed and construed in accordance with the laws of the State of New York, without regard to principles that would require the application of the law of a different state.

15. **Waiver of Jury Trial:** EACH PARTY WAIVES ITS RIGHT TO A JURY TRIAL REGARDING ANY LITIGATION ARISING FROM THE AGREEMENT.

16. **Confidentiality:** Except as provided for herein, neither Party will disclose the terms or conditions of this Product Agreement to any third party (other than the Party's employees, affiliates, lenders, counsel, accountants or advisors who have a need to know such information and have agreed to keep such terms confidential) except in order to comply with any applicable law, regulation, tariff, or in connection with any court or regulatory proceeding. However, each Party shall, to the extent practicable, use reasonable efforts to prevent or limit the disclosure.

17. **Entire Agreement:** The Distributor Sales Agreement and all Product Agreements constitute the entire agreement between the Parties relating to the subject matter hereof. Except to the extent herein provided for, no amendment or modification to the Agreement will be enforceable unless reduced to writing and executed by both Parties.Each provision hereof is to be deemed severable and if any provision contravenes any applicable law, the same shall be deemed to be amended so as to conform to such law or to be deleted if it cannot be amended so as to conform.

18. The Parties acknowledge that the Agreement is a forward agreement as defined in the Bankruptcy Code [11U.S.C.A. Sec 101(24)]. If one Party shall (a) voluntarily file a petition in bankruptcy, reorganization, or receivership, shall (b) be forced by its creditors into bankruptcy, reorganization, or receivership, shall (c) become insolvent, (d) shall fail to pay its debts as they become due, or shall (e) fail to give adequate assurance or security of its ability to perform its obligations hereunder within five (5) business days forty-eight (48) hours after receipt of a request therefore, the non-defaulting Party shall have the immediate right to liquidate and close out this Agreement and all other forward agreements between the Parties.

This Distributor Sales Agreement is made as of the first day written above, and may be executed in one or more counterparts, each of which will be deemed an original and all of which together will form one agreement.

BUYER: VEOLIA ES SOLID WASTE INC.

BY: Richard Burke
~~ROGER ROBITAILLE~~

TITLE: President

DATE: 3/16/09

SELLER: HESS CORPORATION

BY: John McConville

JOHN D. MCCONVILLE

TITLE: MANAGER, DISTRIBUTOR SALES

DATE: 3-16-09

MJM
ELECTRIC, INC.

August 5, 2009

Ringpower
10421 Fern Hill Drive
Riverview, FL 33578
ph: 727.639.0599
email: alan.obal@ringpower.com

ATTN: Alan Obal

REF: Veolia Temp Power
Our Quotation No. 709-45a

Dear Mr. Obal:

We are pleased to submit our proposal to furnish the necessary labor, materials, tools and equipment for the above referenced project.

I. TOTAL LUMP SUM PRICE: ..... $ 107,770.00

II. TERMS OF PAYMENT:

Monthly progress payments for installed work and material stored on site: NET: thirty (30) days.

III. QUALIFICATIONS:

A. We have **not** included any temporary electric other than for our own use.

B. We have **not** included the cost of bonds or an electrical permit if required.

C. We have included Florida State Sales Tax on material that we furnish.

D. We have included overtime.

E. We have based our price on signing an AIA 401 type of contract.

F. Our price is firm for acceptance for a period of thirty (30) days.

IV. WE HAVE BASED OUR PRICE ON THE FOLLOWING:

A. Connect four generators to MCCs 102, 103, 104, and 106.

B. Our plan is to:

a. Connect eight cables per phase and four cables per neutral from generators to four transfer switches (supplied by Ringpower) on top of the hill.
b. Lay exposed cables on dunnage on the concrete surface.
c. At grass, install cable in 24" trays on top of concrete barrier wall and turn down to electrical room.
d. Enter building next to existing cable tray and extend our cable tray to the selected MCCs.
e. At MCC 102, nipple into gear and add buss bars to taps to facilitate added terminations.
f. At MCC 103, nipple into gear and connect to existing buss using longer bolts.
g. At MCC105, we will terminate at TR 105 transformer using longer bolts.
h. At MCC 106, we will enter through the open space at top and terminate using longer bolts.

C. We will megger test all phases before energizing.

D. We will shrink seal all camlock connections.

E. We will seal all our penetrations at gear.

F. We will fabricate supports for the transfer switches.

G. All cabling is provided by Ringpower.

H. Ringpower supplied transfer switches will include mechanical lugs.

I. We have included the cost of engineering.

J. **MJM supply four ASCO 386 series non-automatic transfer switches adder...$90,120.00**. Ship two weeks after order.

V. ADDITIONAL INFORMATION:

A. Florida Contractor's License No. EC0001791 *(valid for all Florida counties)*.

B. We have visited the job site and are familiar with local site conditions.

C. We have the manpower and equipment to complete this project.

Thank you for the opportunity to submit our proposal and we look forward to working with you on this project.

Respectfully yours,
MJM Electric, Inc.

Jim Horton
Project Manager
Jim.horton@mjmelect.com

MJM
ELECTRIC, INC.

	Description	Qty	Net Price	U	Total Mat($)	Labor	U	Total Hours
1	4" GRC STRUT CLAMP	234	217.54	C	509.04	8.00	C	18.72
2	4" PVC - SCH 40 LAID ON GROUND	1,400	95.26	C	1,333.64	12.00	C	168.00
3	4" PVC FEM ADAPTER	12	180.44	C	21.65	[redacted]	C	0.00
4	4" PVC COUPLING	12	153.01	C	18.36	[redacted]	C	0.00
5	4" PVC 90 ELBOW	12	720.92	C	86.51	50.00	C	6.00
6	4" LT FLEX	36	10,836.50	M	390.11	18.40	C	6.62
7	4" LT STRAIGHT CONN	24	7,580.00	C	1,819.20	18.40	C	4.42
8	#2 THHN	1,490	673.39	M	1,003.35	17.36	M	25.87
9	#4/0 WELDING CABLE 600V	11,760	2,750.00	M	32,340.00	20.41	M	240.02
10	#4/0/1C 15KV CU SHLD 133%	4,470	3,745.00	M	16,740.15	46.80	M	209.20
11	1-H CRIMP LUG #4/0 PURPLE	336	366.72	C	1,232.18	45.00	C	151.20
12	#2 HYPRESS 1-HOLE LUG	12	352.83	C	42.34	28.13	C	3.38
13	4/0 HYPRESS 1-HOLE LUG	36	1,054.57	C	379.65	41.25	C	14.85
14	#4/0 15KV HV TERMINATION	36	75.00	E	2,700.00	3.60	E	129.60
15	P-1000 1 5/8" STRUT	140	118.39	C	165.75	16.50	C	23.10
16	1/2-13x1-1/2" BOLT (PLATED)	336	20.32	C	68.28	4.50	C	15.12
17	1/2-13 HEX NUT (PLATED)	336	15.00	C	50.40	3.00	C	10.08
18	1/2" FLAT WASHER (PLT)	336	10.00	C	33.60	1.50	C	5.04
19	1/2" LOCK WASHER (PLT)	336	15.00	C	50.40	1.50	C	5.04
20	UNLOAD AND SET 2500KVA TEMP TRANSFORMER	6	FMO [redacted]	E	0.00	8.00	E	48.00
21	DISCONNECT TEMP WIRING	1	USR [redacted]	E	0.00	48.00	E	48.00
22	REMOVE TEMP WIRING AND CONDUIT	1	[redacted]	E	0.00	80.00	E	80.00
23	RECONNECT PLANT WIRING	1	[redacted]	E	0.00	32.00	E	32.00
	Totals				58,984.61			1,244.25

DISC TEMP WIRING, REMOVE + RECONNECT PLANT WIRE

TEMP WITH 4/0 CABLES

	Labor Type	Crew	Hours	Rate $	SubTotal	Brdn %	Frng $	Brdn Tot.	Frng Tot.	Total	Full Rate
3	LU 915 FOREMAN	1.00	88.88	24.28	2,158.01	36.990	8.76	798.25	778.59	3,734.85	42.02
4	LU 915 JOURNEYMAN	4.00	355.50	22.07	7,845.89	37.820	8.00	2,967.32	2,844.00	13,657.21	38.42
6	LU 915 4TH APP	3.00	266.63	16.91	4,508.71	40.580	6.21	1,829.63	1,655.77	7,994.11	29.98
21	10% FOREMEN	0.75	66.66	26.71	1,780.49	36.990	8.76	658.60	583.94	3,023.03	45.35
22	10% JOURNEYMEN	3.00	266.63	24.28	6,473.78	37.820	8.00	2,448.38	2,133.04	11,055.20	41.46
24	10% 4TH APP	2.25	199.97	18.60	3,719.44	40.580	6.21	1,509.35	1,241.81	6,470.60	32.36
	Totals	14.00	1,244.27	21.29	26,486.32	38.554	7.42	10,211.53	9,237.15	45,935.00	36.92

	Incidental Labor	Hours	Rate $	SubTotal	Brdn %	Frng $	Brdn Tot.	Frng Tot.	Total	Full Rate
1	JOB SETUP	8.00	21.29	170.32	38.554	7.42	65.67	59.36	295.35	36.92
	Totals	8.00	21.29	170.32	38.557	7.42	65.67	59.36	295.35	36.92

	Indirect Labor	Lab %	Hours	Rate $	SubTotal	Brdn %	Frng $	Brdn Tot.	Frng Tot.	Total	Full Rate
1	PROJECT MANAGER		16.00	28.00	448.00	31.360	1.15	140.49	18.40	606.89	37.93
3	LU 915 NON-PRODUCTIVE F		16.00	24.28	388.48	40.140	8.26	155.94	132.16	676.58	42.29
	Totals		32.00	26.14	836.48	35.438	4.71	296.43	150.56	1,283.47	40.11

	Subcontractors	Cost	Total	Vendor	Notes
4	ENGINEERING	2,500.00	2,500.00	PLUG	
	Totals	2,500.00	2,500.00		

	General Expenses	Quantity	Field	Duration	Cost/Unit	Total Cost	Tax(%)	Total	Notes
3	CRANE TRUCK (per day)	1.00	<None>	5.00	300.00	1,500.00		1,500.00	
4	SERVICE TRUCK (per day)	1.00	<None>	10.00	50.00	500.00		500.00	
15	SITE STORAGE (per Month)	1.00	<None>	1.00	100.00	100.00		100.00	
17	CONSUMABLES	58,984.61	Ext Total Mat($)		0.02	1,179.69		1,179.69	
18	SMALL TOOLS	45,935.00	DirLb Total		0.03	1,378.05		1,378.05	
	Totals					4,657.74		4,657.74	

TIME SHEET

WEEK ENDING DATE: Week I

NAME	JOB #	C.C.	MON.		TUE.		WED.		THUR.		FRI.		*SAT.*		*SUN.*		TOTALS		
			ST	OT	ST	OT	ST	OT	ST	OT	ST	OT	ST	OT	*OT1*	*OT2*	ST	OT1	OT2
Foreman			8	4	8	4	8	4	8	4	8	4	12		12		40.0	44.0	
Journeyman Wireman			8	4	8	4	8	4	8	4	8	4	12		12		40.0	44.0	
Journeyman Wireman			8	4	8	4	8	4	8	4	8	4	12		12		40.0	44.0	
Journeyman Wireman			8	4	8	4	8	4	8	4	8	4	12		12		40.0	44.0	
Journeyman Wireman			8	4	8	4	8	4	8	4	8	4	12		12		40.0	44.0	
Apprentice			8	4	8	4	8	4	8	4	8	4	12		12		40.0	44.0	
Apprentice			8	4	8	4	8	4	8	4	8	4	12		12		40.0	44.0	
Apprentice			8	4	8	4	8	4	8	4	8	4	12		12		40.0	44.0	

COMMENTS:

TIME SHEET

WEEK ENDING DATE: Week II

NAME	JOB #	C.C.	MON.		TUE.		WED.		THUR.		FRI.		*SAT.*		*SUN.*		TOTALS		
			ST	OT	ST	OT	ST	OT	ST	OT	ST	OT	ST	OT	*OT1*	*OT2*	ST	OT1	OT2
Foreman			8	4	8	4	8	4	8	4	8	4					40.0	20.0	
Journeyman Wireman			8	4	8	4	8	4	8	4	8	4					40.0	20.0	
Journeyman Wireman			8	4	8	4	8	4	8	4	8	4					40.0	20.0	
Journeyman Wireman			8	4	8	4	8	4	8	4	8	4					40.0	20.0	
Journeyman Wireman			8	4	8	4	8	4	8	4	8	4					40.0	20.0	
Apprentice			8	4	8	4	8	4	8	4	8	4					40.0	20.0	
Apprentice			8	4	8	4	8	4	8	4	8	4					40.0	20.0	
Apprentice			8	4	8	4	8	4	8	4	8	4					40.0	20.0	

COMMENTS:

TIME SHEET

WEEK ENDING DATE: Week III

NAME	JOB #	C.C.	MON.		TUE.		WED.		THUR.		FRI.		*SAT.*		*SUN.*		TOTALS		
			ST	OT	ST	OT	ST	OT	ST	OT	ST	OT	ST	OT	*OT1*	*OT2*	ST	OT1	OT2
Foreman			8	2													8.0	2.0	
Journeyman Wireman			8	2													8.0	2.0	
Journeyman Wireman			8	2													8.0	2.0	
Journeyman Wireman			8	2													8.0	2.0	
Journeyman Wireman			8	2													8.0	2.0	
Apprentice			8	2													8.0	2.0	
Apprentice			8	2													8.0	2.0	
Apprentice			8	2													8.0	2.0	

COMMENTS:

Oswald, Kelsi

From: Christopher.Neu@veoliaes.com
Sent: Monday, May 24, 2010 3:19 PM
To: Oswald, Kelsi; Koon, Luke J
Cc: Richzambo@aol.com; Thomas.Murphy@veoliaes.com
Subject: Fw: Temp power
Attachments: image001.png

Kelsi

MJM acknowledgement that they could have completed work in 12 shift or 6 days had we elected.

Chris

Christopher J. Neu
Vice President/Facility Manager
Veolia ES Pinellas Inc.
E-mail: christopher.neu@veoliaes.com
www.VeoliaES.com

----- Forwarded by Christopher J Neu/OMP/ONYX on 05/24/2010 03:18 PM -----

"Mark J. Mazur" <mark.mazur@mjmelect.com>

05/24/2010 03:01 PM

To <christopher.neu@veoliaes.com>

cc

Subject Temp power

Chris,

I wanted to make sure I was clear with you on our intended schedule for the installation of your four temporary generators. Our proposal and submitted manpower loading were based on us taking twelve days with twelve hour shifts. That is no different to us than six days working two, twelve hour shifts. Had you indicated to us that you needed this job done in six days, we could done that.

Mark J. Mazur
President

MJM Electric Inc

5/25/2010

3225 East 4th Avenue
Tampa, FL 33605
Phone (813) 248-1711
Fax (813) 247-5011
Cell (813) 478-2134
Website – www.mjmelect.com
Email – mark.mazur@mjmelect.com

5/25/2010

Graybar
4010 W. OSBORNE AVE.
TAMPA FL 33614
Phone: 813-289-4144
Fax: 831-259-4365

To: MJM ELECTRIC INC
3225 E 4TH AVE
TAMPA FL 33605
Attn: SCOTT BARBER
Phone: 813-248-1711
Fax:
Email:

Date: 07/31/2009
Proj Name: 15KV SWITCHGEAR
GB Quote #: 209264129
Valid From: 07/31/2009
Valid To: 08/30/2009
Contact: CRAIG POWELL
Email: craig.powell@graybar.com

Proposal

We Appreciate Your Request and Take Pleasure in Responding As Follows

Item	Quantity	Supplier	Catalog Nbr	Description	Price	Unit	Ext.Price
Notes:	DEL 7 WORKING DAYS PLUS SHIPPING. COULD P/U W/ YOUR TRUCK						
200	1 EA	ACCURATE CTRL INC	PC GEAR W/6-1200A BRK N3R 120V CTRL W/GF		$164,000.00	1	$164,000.00

Signed:_____

Total in USD (Tax not included): $164,000.00

This equipment and associated installation charges may be financed for a low monthly payment through Graybar Financial Services (subject to credit approval). For more information call 1-800-241-7408 to speak with a leasing specialist.

To learn more about Graybar, visit our website at www.graybar.com

24-Hour Emergency Phone#: 1-800-GRAYBAR

Subject to the standard terms and conditions set forth in this document. Unless otherwise noted,freight terms are F.O.B. shipping point prepaid and bill. Unless noted the estimated ship date will be determined at the time of order placement.

"Luis Rodriguez" <Luis.Rodriguez@carastro.com> on 07/30/2009 11:04:12 AM

To: <maria.drybread@ringpower.com>, "Scott Barber" <scott.barber@mjmelect.com>, <jim.horton@mjmelect.com>
cc: "Paul Carastro" <Paul.Carastro@carastro.com>, <alan.obal@ringpower.com>

Subject: Pinellas Co. Waste-to-Energy Facility - Temporary Power Project

Maria; Alan;

Our preliminary findings are:

1- We need to protect the downstream equipment (Ring Power transf./generator); and also the upstream equipment, the plant's transformer, loads and 15kV gear. In order to accomplish this we will need a 15kV circuit breaker on the 13.8kV side of Ring Power's transformer to isolate the system during fault conditions. This will be typical for all generator/transformer modules.
This circuit breaker(s) shall have as a minimum the following protection relays; 50/51, 50/51G, 32.

2- We will need to run relay coordination and short circuit study of the temporary equipment and the relationship with the existing protective relays at the plant's switchgear. We need to make must sure we will not affect plant's operations. This will be require before temporary system is energize at the plant; due to determination of relay settings.

3- I have confirm with Russ Waldbessar (Plant Engineer) that the existing 15kV switchgear does not have any spare cubicle or circuit breaker that we could use; in lieu of connecting at the existing transformer TR-104.

Finally, we cannot accomplish all of the above in two weeks. We anticipate minimum of four weeks.

Sincerely,

Luis Rodriguez, P.E.

CARASTRO & ASSOCIATES, INC.
2609 West De Leon Street
Tampa, Fl. 33609

(813) 874-9494 off
(813) 373-3727 cell

Ring Power 7-31-09

A. Obal M. Major R. Waldbesser
C Ney S. Bajor 6. Marcuss.
J. Cascio

1. Looking to install 15kv bkrs -
   > possible rental
   > may need to purchase ($8-10k cost each)

2. Want to isolate 1 transformer / diesel circulating current

   low side of breaker - but concened to protect bkr sized to protect cable

---

7-31-09
1350hrs.

Paul Carastro Mark Major
Luis Rodriguez

conf. call

- not very difficult
  15kv switches 6 wks out -

- thrilled w/ 480v installation

- no coord study

- need group together -
  Luis / MJM visit site on Monday - 0800hrs
  + walkdown site (execusion plan)

- no extra cable. gen. locations - may be ok to leave camlocks

Temporary Power:

TR 103 bkr 33152
TR 102 bkr. 22152

TR 106 extended stabs

TR 105 transformer -

TR 106 RSPB impact
ash systems

TR 103 admin
vapor extr #1 T6
Refuse crane
Martin skid

aux. bkr N/G for use.

TR 102 Martin skid
CEM
lighting.

Duration
106
103
105
} 4-6 hrs

102
- longer period = 8 hrs

105 VC3
ash transfer

Date Scanned: 04/09/2009

Page: 1

TAW ENGINEERED SERVICE INC.

LAKELAND-TECHNICAL FIELD SVC
5070 SWINDELL ROAD
LAKELAND, FLORIDA 33810
863-686-5667 863-683-9806(FAX)

PLEASE REMIT TO:
TAW
P.O BOX 931665
Atlanta, GA 31193

INVOICE DATE	PROD CODE	DIV	BRANCH	DEPT	SLSMN	INVOICE NO.
03/31/09		HS	LL	060	tb	553373

ACCOUNT NO.
02497000

SOLD TO:
VEOLIA ENVIRONMENTAL SERVICES
PURCH AND SHARED SERV CTR-PINELLAS
125 SOUTH 84TH STREET SUITE 175
MILWAUKEE WI 53214

SHIP TO:
VEOLIA ENVIRONMENTAL SERVICES
LOCATION #.OU 26030
3001 110TH AVENUE NORTH
SAINT PETERSBURG FL 33716

INVOICE

PLEASE NOTE – All invoices are due by due date. If not paid within 15 days of due date, a late payment charge of 1 1/2% per month(18% annual rate) will be added. Purchaser shall be responsible for the cost of this account, including attorneys fees and costs. Terms and conditions are on back of invoice.

PO NUMBER	SHIP VIA AND DATE SHIPPED		TERMS	AMOUNT
	OUR TRUCK	03/30/09	NET 45 DAYS	8,320.00
51194			DUE DATE 05/15/09	

Item	Description	U/M	Shp'd	Ext Price
misc	MISCELLANEOUS	Ea	1	

DESC: Hook up generators and disconnect generators

OK TO PAY

OK
RW
4-13-09

TAW will provide technicians to run customer provided cables and generators to the transformers feeding there MCC line up. We will disconnect and isolate transformer from the secondary bus and connect generator leads to secondary bus. When the job is complete we will then remove the cable and reconnect the transformers. The transformers that will be disconnected and reconnected are TR-103, TR-105, TR-106. If there are any delays outside of TAW's control we will ajust quote accordingly. This work will take place on site for the dates of connect 3/23/09 Monday and removal on 3/28/09 Saturday.

$ PAID

DATE ENTERED: 4/17/09
PO# 51194 8320.00
0520000729 $
TOTAL

Total Gross 8,320.00

Kenworth 4/14/09

APPROVED
DATE: 4/20/09
BRITTNEY WILLIAMS
blw

JOB#212189 QUOTE#135070

TOTAL DUE THIS INVOICE 8,320.00

OD 4/13

April 13, 2009 9:30 AM

INVOICE

SUNBELT RENTALS

SEND ALL PAYMENTS TO:
SUNBELT RENTALS
PO BOX 409211
ATLANTA, GA 30384-9211

INVOICE NO	19760102-001
ACCOUNT NO	499970
INVOICE DATE	4/13/09
PAGE	2 of 2

INVOICE TO
1oz - 2766 - 2915
VEOLIA ES PINELLAS INC/VEOLIA
ENV SVC/SHARD SVCS OU#26030
125 S 84TH ST STE 175
MILWAUKEE WI 53214-1499

JOB ADDRESS
VEOLIA ES PINELLAS INC/VEOLIA
3001 110TH AVE N
WWTP
SAINT PETERSBURG, FL 33716-2002

727-572-9163

RECEIVED BY	MCCANDLESS, THOMAS
CONTRACT NO.	19760102
PURCHASE ORDER NO.	51215
JOB NO.	1 - WASTE MANAGEMENT

BRANCH
TAMPA PUMP & POWER
7520 HIGHWAY 301 N
TAMPA, FL 33637-6769
813-247-4800

QTY	EQUIPMENT #	Min	Day	Week	4 Week	Amount

SALES ITEMS:

Qty	Item number	Unit	Price

SALES ITEMS:

Qty	Item number	Unit	Price	Amount
8	E&DLABOR 2218XXX050 *** SERVICE TECH $45 PER HR ***	EA	45.000	360.00
1	ENVIRONMENTAL ENVIRONMENTAL	EA	248.570	248.57
1	RENTAL PROTECTION PLAN	EA		3421.19
	DELIVERY CHARGE			350.00
	PICKUP CHARGE			350.00

A discount of $5438.90 has been applied.
FINAL BILL: 3/20/09 07:00 AM THRU 4/03/09 07:14 AM.

$ PAID

DATE ENTERED: 4/24/09
PO# 51215
652000799 29166.86
TOTAL

APPROVED
DATE: 5 M 109
BRITTNEY WILLIAMS

Kenneth 5/4/09

Equipment. Service. Guaranteed.

SUBTOTAL	29,166.86
SALES TAX	1,732.70
INVOICE TOTAL	30,899.56

REMIT TO:

SUNBELT RENTALS
PO BOX 409211
ATLANTA, GA 30384-9211

NET DUE UPON RECEIPT

Invoices not paid within 30 days may be subject to a 1-½% per month charge.

RENTAL RETURN

April 21, 2009 12:47 PM

AP4/2

INVOICE

SUNBELT® RENTALS

SEND ALL PAYMENTS TO:
SUNBELT RENTALS
PO BOX 409211
ATLANTA, GA 30384-9211

INVOICE NO	19760102-001
ACCOUNT NO	499970
INVOICE DATE	4/13/09
PAGE	1 of 2

INVOICE TO
1ox - 2796 - 2914
VEOLIA ES PINELLAS INC/VEOLIA
ENV SVC/SHARD SVCS OU#26030
125 S 84TH ST STE 175
MILWAUKEE WI 53214-1499

JOB ADDRESS
VEOLIA ES PINELLAS INC/VEOLIA
3001 110TH AVE N
WWTP
SAINT PETERSBURG, FL 33716-2002

727-572-9163

RECEIVED BY	MCCANDLESS, THOMAS
CONTRACT NO.	19760102
PURCHASE ORDER NO.	51215
JOB NO.	1 - WASTE MANAGEMENT

BRANCH
TAMPA PUMP & POWER
7520 HIGHWAY 301 N
TAMPA, FL 33637-6769
813-247-4800

QTY	EQUIPMENT #	Min	Day	Week	4 Week	Amount
1	500KW DIESEL GENERATOR S208375 Make: E&E Model: 500 KW Ser #: 2160038423 HR OUT: 567.000 HR IN: 690.000 TOTAL: 123.000 Billed from 3/20/09 thru 4/03/09 *** UNLIMITED RUN TIME ***	780.00	780.00	1950.00	5850.00	3900.00
1	750KW DIESEL GENERATOR S213331 Make: E&E Model: 750 KW Ser #: 37194688581312 HR OUT: 166.000 HR IN: 280.000 TOTAL: 114.000 *** UNLIMITED RUN TIME *** *** 750kw at 500kw pricing ***	780.00	780.00	1950.00	5850.00	3900.00
1	1500KW DIESEL GENERATOR S63341 Make: E&E Model: 1500 KW Ser #: 33146166 HR OUT: 4654.000 HR IN: 4775.000 TOTAL: 121.000 *** UNLIMITED RUN TIME *** *** 1500kw at 1000kw pricing ***	1410.00	1410.00	3525.00	10575.00	7050.00
1	1000 GALLON DOUBLE WALL UL FUEL TANK 10546 Make: DRAGON PRO Model: 1000 GALLON Ser #: 24553	284.75	284.75	759.05	2125.00	1518.10
1	1000 GALLON DOUBLE WALL UL FUEL TANK 10550 Make: DRAGON PRO Model: 1000 GALLON Ser #: 24552	284.75	284.75	759.05	2125.00	1518.10
1	2300 GALLON DOUBLE WALL UL FUEL TANK S223705 Make: DRAGON PRO Model: 2300ET Ser #: N/A	374.00	374.00	1000.45	2805.00	2000.90
140	4/0 CAM LOC CABLE 50'	5.00	5.00	12.50	37.50	3500.00
35	4/0 FEMALE PIG TAIL	3.00	3.00	7.50	22.50	525.00
35	4/0 MALE PIG TAIL	3.00	3.00	7.50	22.50	525.00

Continued on Next Page

Equipment. Service. Guaranteed.

SUBTOTAL	
SALES TAX	
INVOICE TOTAL	SEE LAST PAGE

REMIT TO:
SUNBELT RENTALS
PO BOX 409211
ATLANTA, GA 30384-9211

NET DUE UPON RECEIPT

Invoices not paid within 30 days may be subject to a 1-½% per month charge.

RENTAL RETURN