Alexandria/Arlington
Resource Recovery Facility

Second Quarter 2013
Summary Operating Report

Prepared by:

HDR Engineering, Inc.
5426 Bay Center Drive, Suite 400
Tampa, Florida 33609

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Definition of Abbreviations & Acronyms

Abbreviation/Acronym	Definition
APC	Air Pollution Control
Apr	April
Aug	August
Avg	Average
Btu	British thermal unit
CAAI	Covanta Alexandria Arlington, Inc.
CEMS	Continuous Emissions Monitoring System
CO	Carbon Monoxide
Dec	December
Feb	February
FY	Fiscal Year
gal	Gallon
GAT	Guaranteed Annual Tonnage
HCl	Hydrochloric (Hydrogen Chlorides)
HDR	HDR Engineering Inc
ID	Induced Draft
Jan	January
Jul	July
Jun	June
klbs	Kilo-pounds (1,000 lbs)
kWhr	Kilowatt hours (1,000 watt-hours)
lbs	Pounds
LOA	Letter of Agreement
Mar	March
Max	Maximum
May	May
Min	Minimum
MSW	Municipal Solid Waste
MWhr	Megawatt hours
No	Number
NOV	Notice of Violation
Nov	November
NO_x	Nitrogen Oxide
Oct	October
OSHA	Occupational Safety and Health Administration
PDS	Potomac Disposal Services
ppm	Parts per million
ppmdv	Parts per million dry volume
PSD	Prevention of Significant Deterioration
Q1	First Quarter
Q2	Second Quarter
Q3	Third Quarter
Q4	Fourth Quarter
RE	Reportable Exempt
RNE	Reportable Non-Exempt
SDA	Spray Dryer Absorber
Sep	September
SO_2	Sulfur Dioxide
TCLP	Toxicity Characteristic Leaching Procedure
VADEQ	Virginia Department of Environmental Quality
WL	Warning Letter
yr	Year
YTD	Year to date

Alexandria/Arlington Waste-to-Energy Facility
Second Quarter 2013 Summary Operating Report

1.0 Purpose of Report

HDR Engineering, Inc. (HDR) was given authorization by the Trustees to conduct bi-monthly inspections and provide quarterly monitoring reports regarding the operation and maintenance of the Alexandria/Arlington Waste-to-Energy Facility (Facility) for the 2012 calendar year. This report is prepared for the second quarter of the 2013 fiscal year and summarizes Facility operations between October 1, 2012 and December 31, 2012. This report identifies the fiscal year beginning on July 1, 2012, as FY13, and the quarter beginning on October 1, 2012 as Q2FY13. This report is the final deliverable under the now expired agreement between the Trustees and HDR Engineering, Inc. Future reporting will be aligned with a new temporary agreement between CAAI and the Facilities Monitoring Group.

This report is based upon the experience HDR has in the waste-to-energy industry, upon site observation visits and previous reports provided by HDR, and upon data provided by Covanta Alexandria / Arlington, Inc. (CAAI), the Facility operator.

2.0 Executive Summary

CAAI operated the Facility in an acceptable manner and in accordance with established waste-to-energy industry practices during Q2FY13. The operation of the Facility, maintenance, safety, and overall cleanliness continue to be above average. Environmental performance was good with two (2) reportable environmental excursions throughout the quarter. An explanation of these events is contained in Section 6.0 of this report.

During Q2FY13, the Facility experienced one (1) instance of unscheduled downtime for the boilers totaling 5.8 hours, and three (3) instances of unscheduled downtime for the turbine generators totaling 39.9 hours. Boiler Nos. 1 and 2 experienced periods of downtime for scheduled maintenance totaling 176. 2 hours combined. Turbine Generator Nos. 1 and 2 also experienced periods of downtime for scheduled maintenance totaling

518.5 hours combined. The boilers experienced three (3) instances of standby time totaling 106.0 hours combined, and the turbine generators experienced two (2) instances of standby time totaling 40.1 hours combined during the quarter. A detailed listing of unit downtime is provided in Section 5.1 of this report.

Average waste processed during the quarter was 922 tons per day, or 94.6% of nominal facility capacity. Waste deliveries averaged 941 tons per day, which is 2.1% higher than the burn rate. The capacity utilization of 94.6% compares very favorably to industry averages, which are generally in the 88% to 92% range.

Performance trends for various measurements are presented in Section 4. In general, the Facility continues to demonstrate reasonable consistency in month to month performance throughout the most recent three year period tracked for detailed comparisons.

During the quarter, MSW processed decreased 3.5% from the corresponding quarter in FY12; steam production slightly increased (0.03%), and electricity generated (gross) decreased 10.7% from the corresponding quarter in FY12. The increase in steam production is attributable to an increase (2.7%) in waste heating value and 66.0 less hours of downtime (scheduled, unscheduled, and standby) experienced by the boilers as compared to the corresponding quarter of FY12. The significant decrease in gross electrical generation is attributable to 489.3 more hours of downtime (scheduled, unscheduled, and standby) experienced by the turbine generators as compared to the corresponding quarter of FY12. The majority of the turbine generator downtime was associated with the scheduled major overhaul of T-G No. 1.

3.0 Facility Inspection and Records Review

In November 2012, HDR met with the Facility management and other plant personnel to discuss Facility operations and maintenance, acquire Facility data and reports, perform an independent visual inspection of the operating Facility, photograph areas of interest, and perform a review of recent Facility activity. This visit was coordinated with the scheduled Trustees' meeting. At the time of the visit, HDR reviewed CAAI records, discussed performance issues with CAAI staff, and provided a monthly report. HDR maintains a running tabulation of the status of corrective actions and plant performance trends. CAAI provides the following documents for each month:

- Facility Monthly Operating Reports
- Monthly Continuous Emissions Monitoring System (CEMS) Reports

Table 1 summarizes maintenance, repair, and plant condition issues reported during this and prior audit reporting periods. An "A" indicates an issue of the highest priority and worthy of immediate attention. Such items are usually safety or operability issues. A "B" indicates that the issue needs to be dealt with as quickly as possible, but is not urgent. These items will usually result in a process improvement or will help avoid future "urgent" issues. A "C" indicates that the issue should be dealt with at the earliest convenience, but is not a priority issue. This category might include issues related to aesthetics, non-urgent maintenance, or housekeeping improvements which are not safety related.

Table 1: Summary of Audit Report Deficiencies

*A is highest priority & demands immediate attention: B needs attention, but is not urgent; C can be addressed at earliest opportunity & is not urgent.

Item No.	Audit Report Deficiencies	Issue Reported	Priority *	Resolution/Status	Date Resolved	Open / Closed
1	Pothole at tipping floor truck entrance. Note further deterioration observed during the June 2011 inspection.	February 2010	C	CAAI reports repairs were made in October 2012	Oct. 2012	Closed
2	Spider Cracks & Pothole at Ash Alley Truck entrance	February 2010	C	HDR observed that a temporary repair had been made during the October 2010 inspection. CAAI reports that permanent repairs will be made during the cold iron outage, which is scheduled for 2012.	Oct. 2012	Closed
3	Spider cracking at scale entry area	July 2010	C	Repair		Open
4	Spalling concrete at municipal scale platform. Note further deterioration observed during the June 2011 inspection.	July 2010	C	Repair		Open
5	Selected timbers on cooling tower basin need replacement	October 2010	C	Inspect/Replace timbers as needed. CAAI reports replacement of timbers were completed in September 2012.	Sept. 2012	Closed
7	Tipping Floor siding damaged	July 2012	C	Repair siding		Open
8	Tipping floor lighting needs improvement since installation of entrance roll-up door	July 2012	A	Add lighting or skylights. CAAI reports that skylights installed and they have improved daytime lighting conditions.	Dec. 2012	Closed
9	Pothole at truck entry roadway	May 2012	C	Repair		Open

4.0 Facility Operations

Monthly operating data provided by CAAI indicates that 84,822 tons of MSW were processed during Q2FY13, and a total 83,030 tons of MSW including 664 tons of Special Handling Waste were received. Total ash production during the quarter was 18,391 tons, which represents 21.7% of the waste processed. The average uncorrected steam production rate for Q2FY13 was 3.2 $tons_{steam}/ton_{waste}$; 3.6% more than the corresponding quarter in FY12.

Chart 1: Tons of Waste Processed

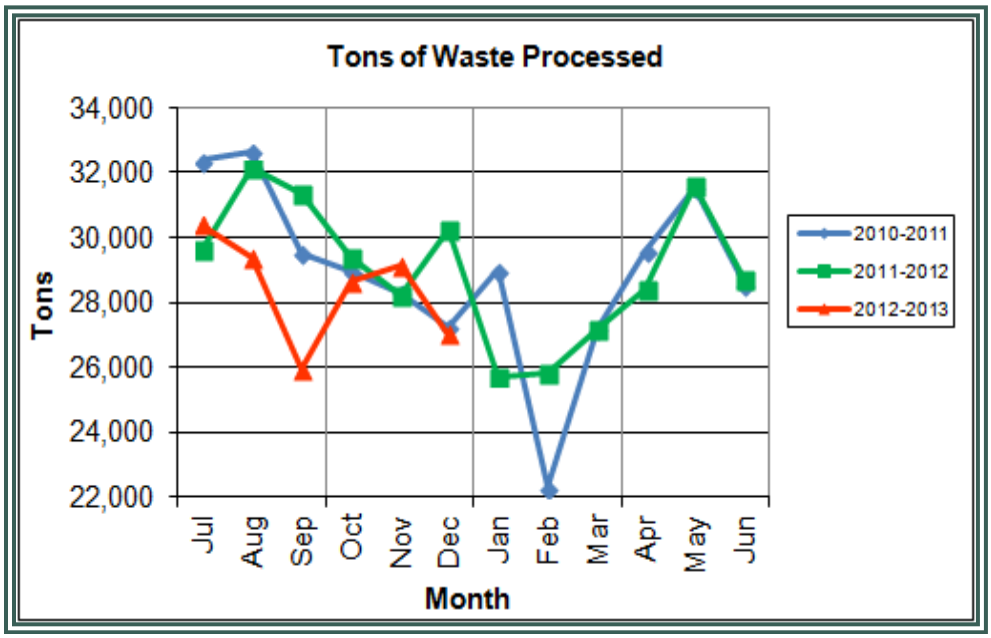


Chart 1 illustrates that Q2FY13 waste processed was lower (3.5%) than the corresponding quarter Q2FY12. CAAI reported that 526 tipping floor/MSW inspections were conducted during the quarter and four (4) notices of violation (NOV) were issued for the following:

- October – Two (2) NOV were issued for unacceptable waste
- November – Two (2) NOV were issued for unacceptable waste
- December – No NOV were issued.

Chart 2: Tons of Ash Produced per Ton of Waste Processed

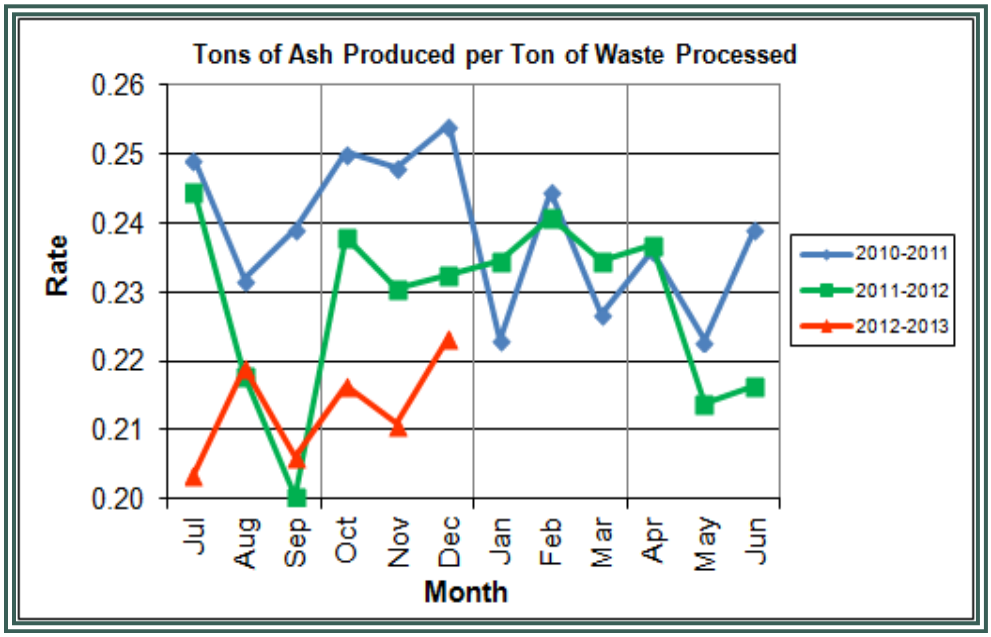


Chart 2 illustrates that ash production rates in Q2FY13 are lower (7.3%) at 21.7% of processed waste, compared to the corresponding quarter in FY12 when the ash production rate was 23.4% of processed waste. The significant decrease in ash production, which began in May, 2012 is attributed to the installation of the "semi-dry" ash discharger spray system, and represents less moisture in the ash residue shipped to disposal.

Chart 3: Ferrous Recovery Rate

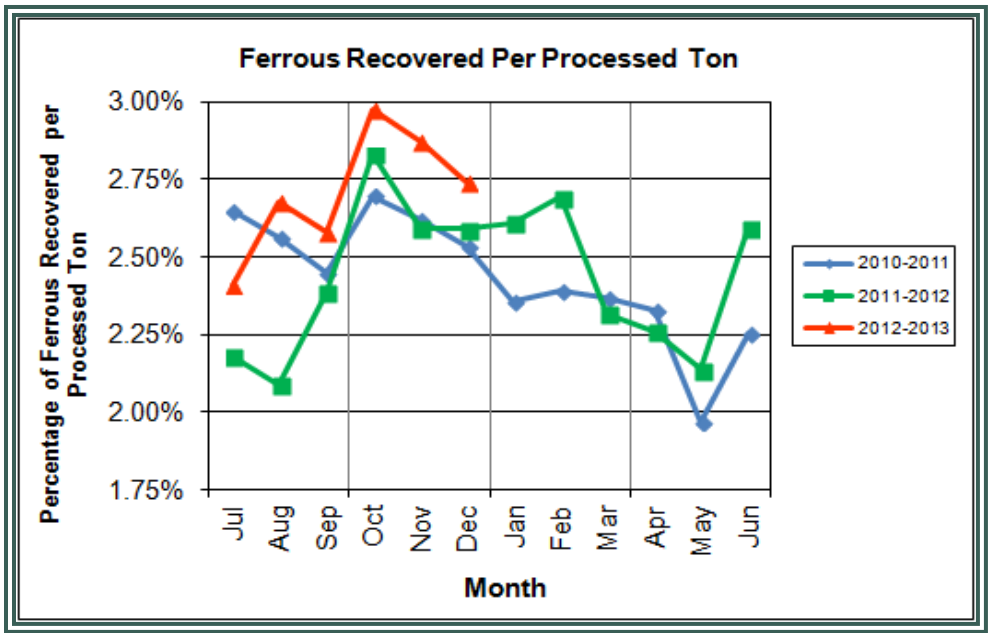
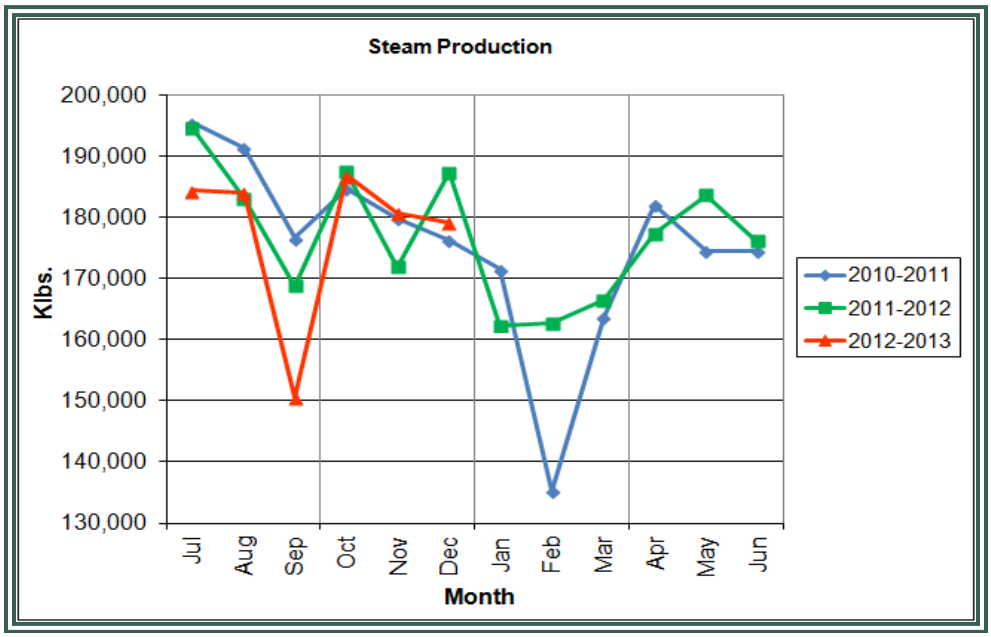


Chart 3 depicts the monthly ferrous metal recovery rate as a percentage of processed MSW tonnage. In Q2FY13, 2,429 tons of ferrous metals were recovered, a historic quarterly record, which is 3.5% higher than the corresponding quarter in FY12 and equivalent to 2.9% of processed waste. Ferrous metal recovered since the system was added in May 2007, totals 44,668 tons.

Chart 4: Steam Production



In Chart 4, the total steam production for Q2FY13 was 546,639 klbs., or less than 0.1% higher than the corresponding quarter in FY12. The increase in steam production is occurred despite slightly lower (3.5%) waste processed, and is primarily attributable to an increase (2.7%) in waste heating value.

Chart 5: 12-Month Rolling Steam Production

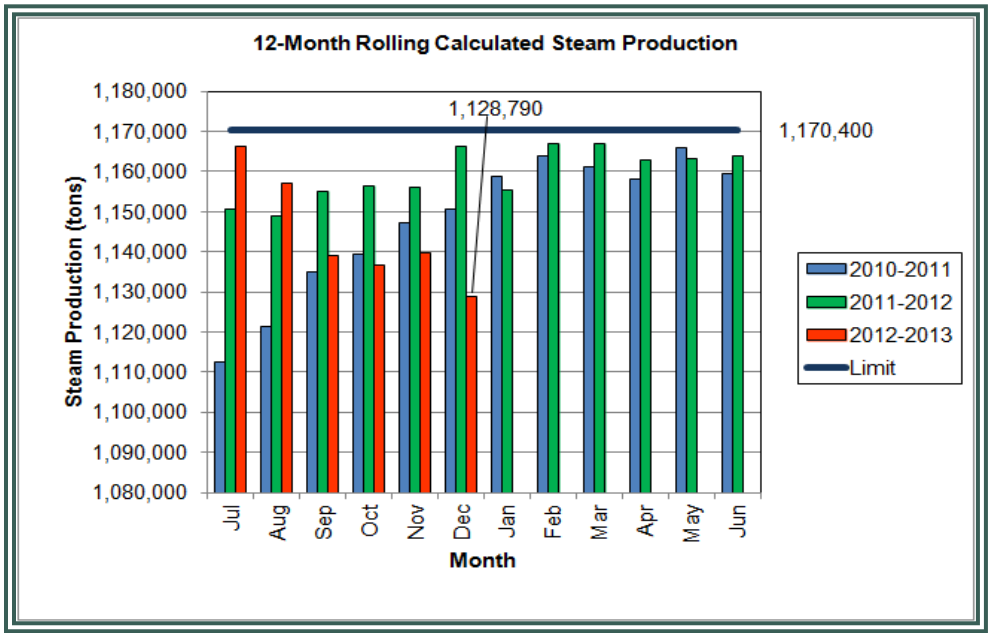
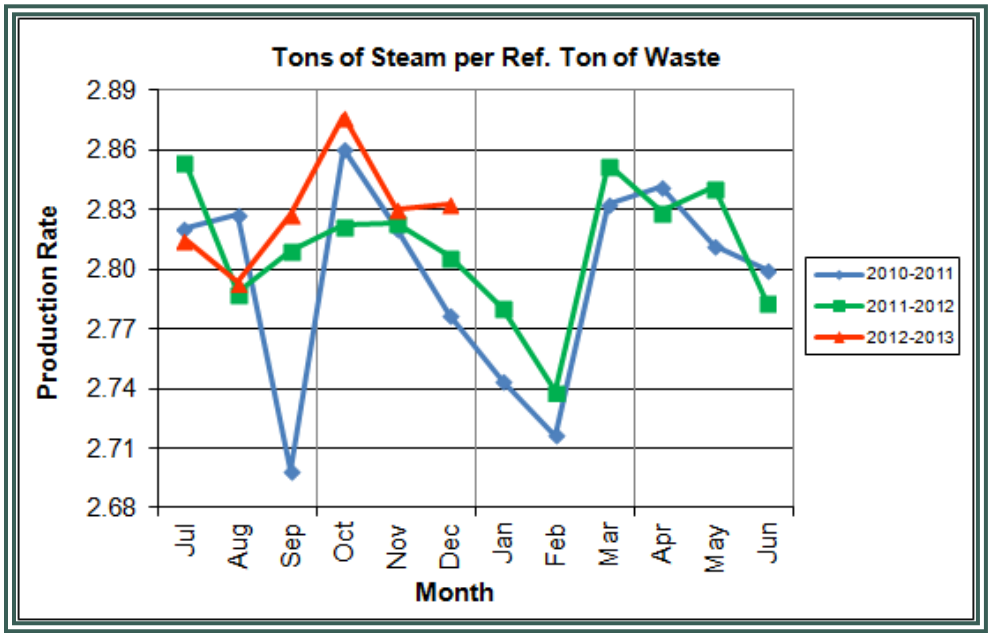


Chart 5 depicts the 12-month rolling steam production total for the period ending in September 2012. According to the Title V permit, the annual steam production for the Facility shall not exceed 1,170,400 tons on the basis of an average value of 3.34 lbs of steam per lb of MSW processed, calculated monthly as the sum of each consecutive 12 month period. The Facility was in compliance with the 12-month rolling steam production total every month in the quarter. The 12-month rolling total for steam production ending in December was 1,128,790 tons which is 96.4% of the limit.

Examination of Chart 5 values compared to the "red-line" limit show that since August, 2012, the Facility steam production capability has decreased resulting from periods of scheduled and unscheduled downtime, along with lower total MSW deliveries.

Chart 6: Steam Production Rate



In Chart 6, the conversion of raw waste tonnages into "reference tons" is another way of looking at the issue of steam production, and helps to determine whether changes are related to boiler performance or to fuel issues. "Reference tons" are adjusted to account for the calculated average fuel heating value, so that lower Btu fuel raw tonnages are adjusted upwards and vice versa. In this case, Q2FY13 tracked higher (1.1%), at 2.85 $tons_{steam/}ton_{ref}$, than the corresponding quarter in FY12.

Chart 7: Calculated Waste Heating Value

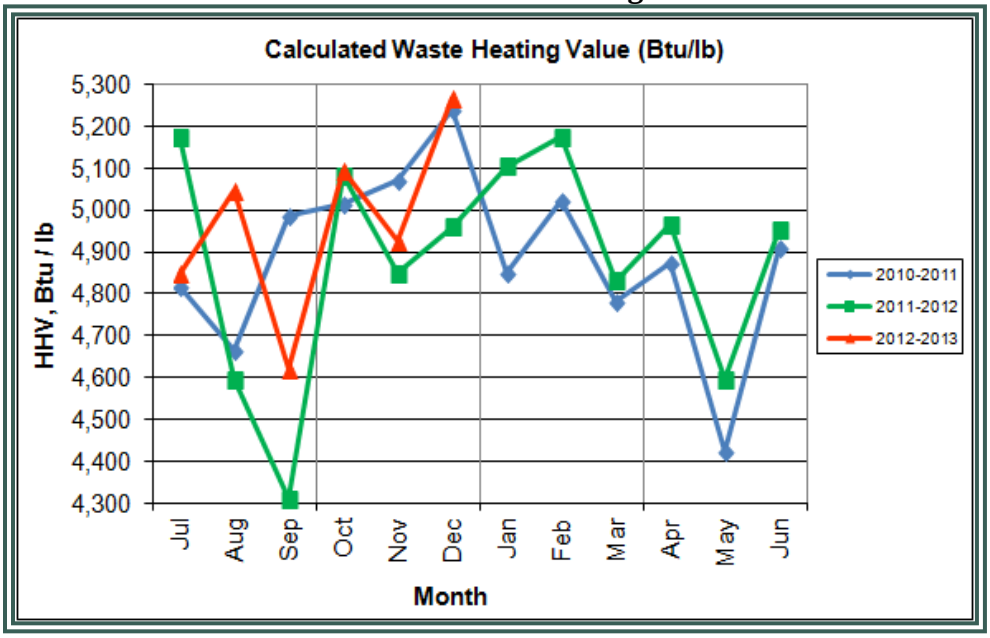


Chart 7 illustrates that Q2FY13 average waste heating value was higher (2.7%) at 5,098 Btu/lb than the corresponding quarter Q2FY12, which averaged 4,965Btu/lb.

Table 2: Quarterly Performance Summaries

Month		Waste Processed (tons)	Waste Diverted (tons)	Ash Shipped (tons)	Special Handling (Supplemental) (tons)	Ferrous Recovered (tons)	Steam Produced (klbs)	Net Electrical Generation (kWhr)
Q2FY11	**Quarterly Totals**	**84,496**	**0**	**21,198**	**32**	**2,213**	**540,811**	**38,410**
	October-10	28,960	0	7,249	13	781	184,673	12,931
	November-10	28,278	0	7,016	6	741	179,848	12,869
	December-10	27,258	0	6,933	13	691	176,290	12,610
Q2FY12	**Quarterly Totals**	**87,883**	**0**	**20,550**	**51**	**2,348**	**546,465**	**38,983**
	October-11	29,386	0	6,997	15	832	187,371	13,314
	November-11	28,233	0	6,512	15	732	171,864	12,178
	December-11	30,264	0	7,041	21	784	187,230	13,491
Q2FY13	**Quarterly Totals**	**84,822**	**0**	**18,391**	**664**	2,429	**546,639**	**34,177**
	October-12	28,661	0	6,205	25	852	186,789	8,225
	November-12	29,144	0	6,146	234	837	180,656	12,898
	December-12	27,017	0	6,040	405	740	179,194	13,054
FY13 YTD Totals		**170,518**	**0**	**36,361**	**906**	**4,616**	**1,065,541**	**70,184**
FY12 Totals		**348,455**	**0**	**79,424**	**336**	**8,474**	**2,121,209**	**149,919**
FY11 Totals		**347,193**	**0**	**82,851**	**203**	**8,444**	**2,105,620**	**149,143**

Table 2 presents in tabular form the production data provided to HDR by CAAI for Q2FY13 on both a monthly and quarterly basis. For purposes of comparison, data for Q2FY11 and Q2FY12 are also shown, as well as FY11, FY12 and FY13 year to date (YTD) totals.

On an overall basis, the data shows that less waste was processed, less electricity was generated, and more steam was produced in Q2FY13 as compared to Q2FY12. Please note the total steam generation figures presented in Table 2 do not correlate with the annual steam production limit from the Facility Permit; such limits apply on a 12-month rolling average monthly basis, and not a fiscal year basis. It is also worth noting that the quantity of supplemental waste, while still a small percentage of overall waste, has significantly increased (600+ tons) in Q2FY13 compared to the same periods in the prior two (2) fiscal years.

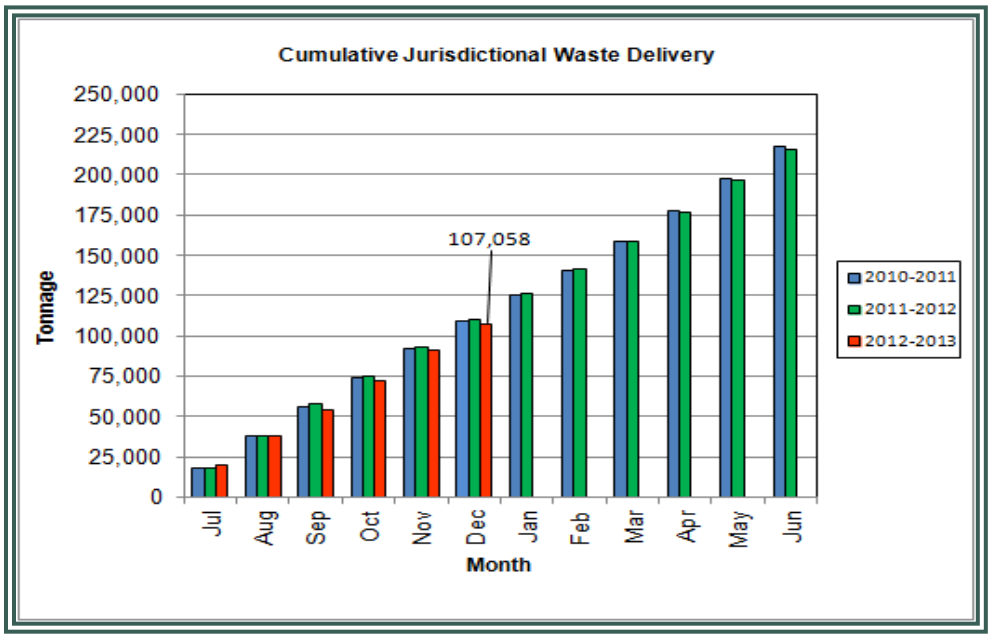
Table 3: Jurisdictional vs. Non-Jurisdictional Waste Delivery

		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Totals
FY08	Jurisdiction waste toward GAT	20,566	20,715	19,348	20,356	19,831	18,530	18,225	16,597	17,708	19,887	21,400	20,524	233,688
	Spot Waste tons	8,868	9,906	8,020	10,572	7,914	9,531	9,741	10,715	8,999	10,212	10,273	11,130	115,883
	MSW Totals	**29,434**	**30,621**	**27,368**	**30,928**	**27,745**	**28,061**	**27,965**	**27,313**	**26,708**	**30,099**	**31,673**	**31,654**	**349,571**
FY09	Jurisdiction waste toward GAT	21,811	20,088	20,960	20,628	19,675	20,519	18,637	16,317	18,216	19,630	20,225	20,781	237,486
	Spot Waste tons	9,964	8,814	8,572	8,280	5,124	12,303	8,829	8,619	11,290	9,205	9,363	10,048	110,411
	MSW Totals	**31,775**	**28,903**	**29,532**	**28,908**	**24,799**	**32,821**	**27,466**	**24,936**	**29,506**	**28,835**	**29,588**	**30,829**	**347,898**
FY10	Jurisdiction waste toward GAT	19,355	18,924	19,036	18,555	18,523	18,388	16,380	14,635	19,308	19,423	18,764	19,796	221,087
	Spot Waste tons	8,261	10,117	6,996	9,817	7,253	8,117	8,677	7,598	9,293	10,568	10,187	10,830	107,713
	MSW Totals	**27,616**	**29,041**	**26,032**	**28,372**	**25,776**	**26,505**	**25,056**	**22,233**	**28,601**	**29,991**	**28,951**	**30,626**	**328,799**
FY11	Jurisdiction waste toward GAT	18,201	19,320	18,100	18,244	17,812	17,394	16,316	15,212	18,279	18,596	20,355	19,382	217,213
	Spot Waste tons	13,996	13,917	11,696	9,336	10,177	11,441	12,968	7,016	8,459	10,177	12,947	9,657	131,786
	MSW Totals	**32,197**	**33,237**	**29,796**	**27,580**	**27,989**	**28,835**	**29,284**	**22,228**	**26,738**	**28,774**	**33,302**	**29,038**	**348,999**
FY12	Jurisdiction waste toward GAT	18,112	20,021	19,304	17,796	17,523	17,211	16,202	14,952	17,430	18,338	20,138	18,361	215,381
	Spot Waste tons	8,901	13,623	13,303	9,788	11,976	11,900	10,276	10,697	10,283	10,029	11,333	10,177	132,295
	MSW Totals	**27,013**	**33,644**	**32,607**	**27,584**	**29,499**	**29,111**	**26,478**	**25,650**	**27,714**	**28,367**	**31,471**	**28,538**	**347,676**
FY13	Jurisdiction waste toward GAT	19,413	18,357	16,632[3]	17,625[4]	18,838[5]	16,195							107,058 [2]
	Spot Waste tons	10,516	11,326	10,610	10,317	9,330	9,558							61,656[2]
	MSW Totals	**29,928**	**29,683**	**27,241**	**27,942**	**28,167**	**25,753**							**168,714 [2]**

Note (1): Jurisdictional Waste Totals do not include Supplemental Waste tonnages specified in the CAAI issued monthly data
Note (2): Values indicated are year to date (YTD) totals
Note (3): Total includes 505 tons shortfall by PDS
Note (4): Total includes 174 tons shortfall b y PDS
Note (5): Total includes 679 tons credited (subtracted) for the prior 2 months of shortfall tons by PDS

Jurisdictional waste is processible waste that is delivered to the Facility under the direction and control of the City of Alexandria, and Arlington County, as part of the contract Guaranteed Annual Tonnage (GAT). Non-jurisdictional waste is spot waste delivered to the Facility as directed by CAAI. Table 3 represents the monthly and fiscal year total waste delivered to the Facility, classified by jurisdictional and non-jurisdictional waste. Historically, jurisdictional waste delivered represents roughly two thirds (2/3) of the total waste delivered. Note that the tonnages reported in Table 3 for ***delivered*** waste differ slightly from those in Table 2, which lists ***processed*** waste.

Chart 8: Cumulative Jurisdictional Waste Delivery



As shown in Chart 8, for the six month period ending in December 2012, cumulative jurisdictional waste delivery decreased 2.6% compared to the same period in FY12. Depicted in Chart 9, for the period ending in December 2012; cumulative total waste delivery decreased 5.5% compared to the same period in FY12. Note that Chart 9 incorporates supplemental waste deliveries, and is not based off the MSW total waste year to date values in Table 3 on Page 15.

Chart 9: Cumulative Total Waste Delivery

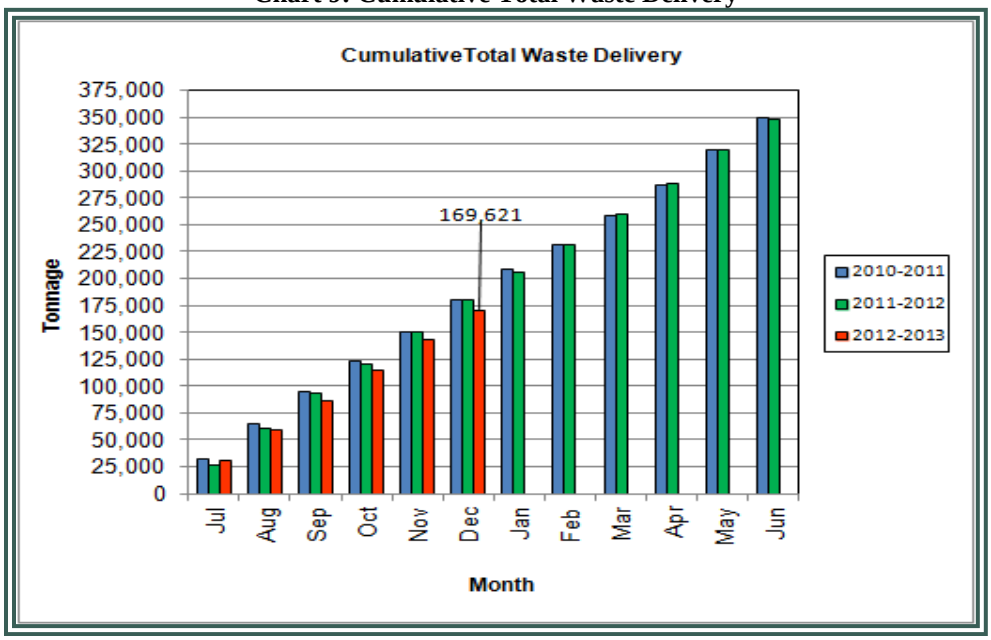
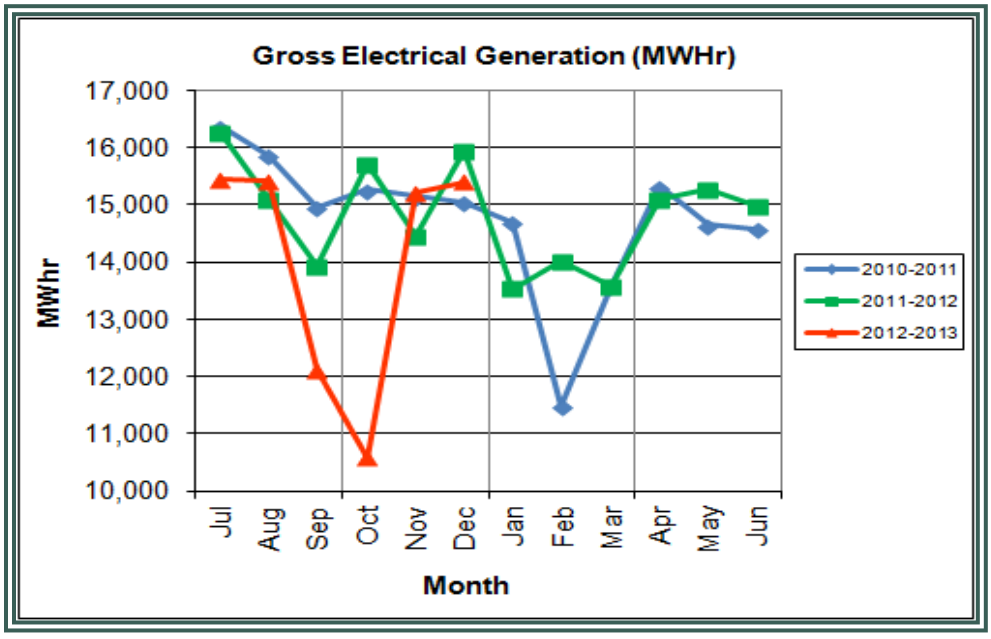


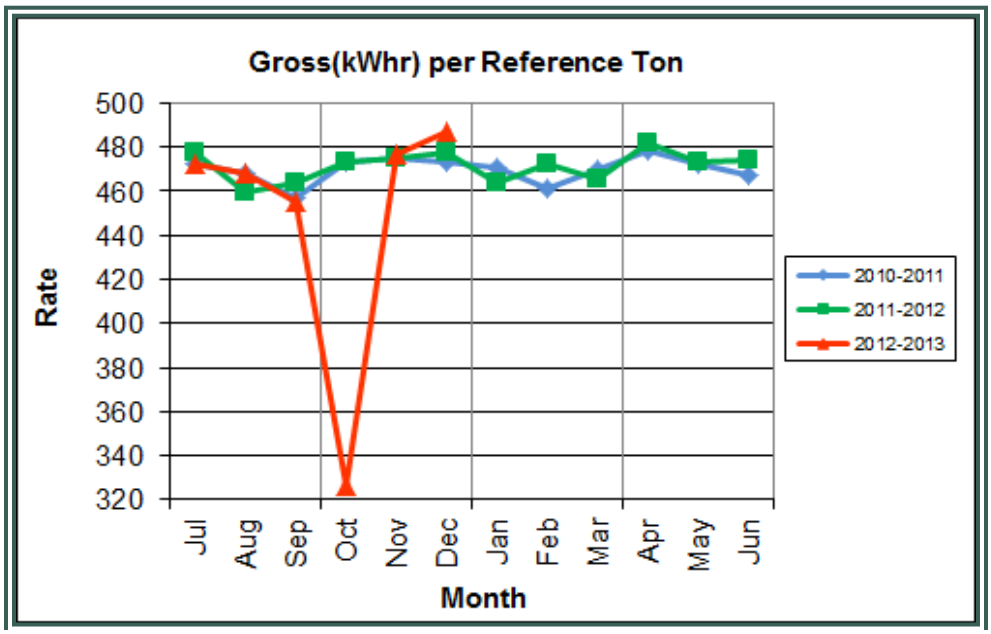
Chart 10: Gross Electrical Generation



During Q2FY13, the Facility generated 41,183 MWhrs (gross) of electricity compared to Q2FY12 generation of 46,100 MWhrs (gross), a 10.7% decrease. The decrease in gross electrical production is attributable to the 598.5 hours of downtime (scheduled, unscheduled and standby) experienced by the turbine generators during the quarter. Note that the 3-year low of gross electrical production experienced in October was due to

Turbine Generator No. 1 experiencing 494.5 hours of downtime for scheduled maintenance. Evidence of the downtime experienced by the Turbine Generators is also presented in Chart Nos. 11 through 15, where sharp spikes are depicted in the trends for the month of October 2012 when the Turbine Generator No. 1 Overhaul was conducted.

Chart 11: Gross Conversion Rate



As shown in Chart 11, the average gross electrical generation per reference ton of refuse processed during Q2FY13 was 430 kWhr, which is significantly lower (9.6%) than the corresponding period in FY12. Since this calculated value uses reference or normalized tonnages of waste, it should cancel the effect of MSW heating value (Btu content) variability.

Chart 12: Net Conversion Rate

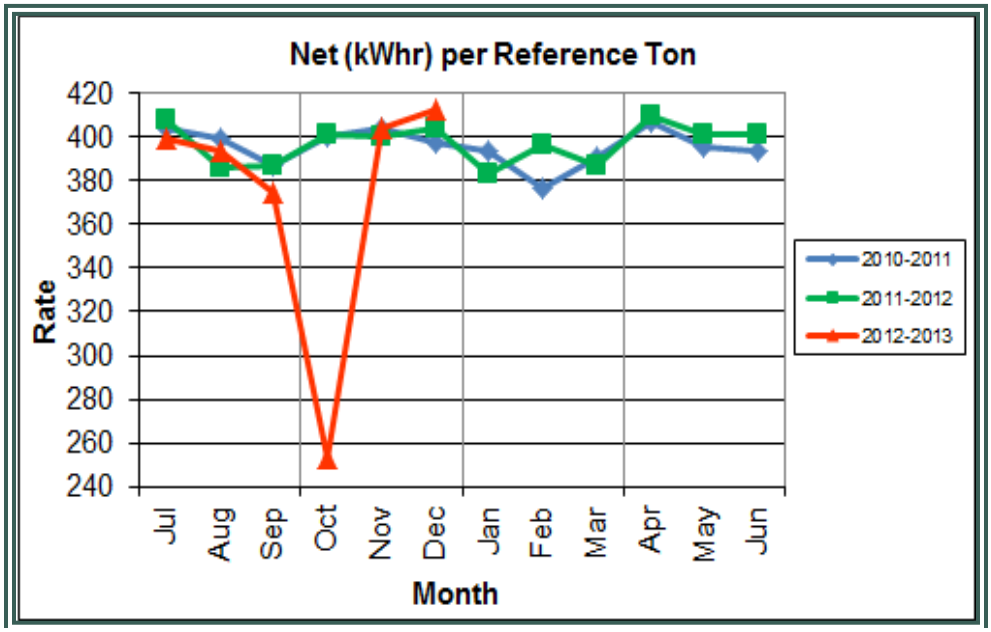


Chart 12 depicts the normalized net power (gross minus in-house usage) generation history. In Q2FY13, the average net electrical generation per reference ton was 357 kWhr, which is 11.2% lower than the corresponding quarter in FY12.

Chart 13: Net Conversion Rate

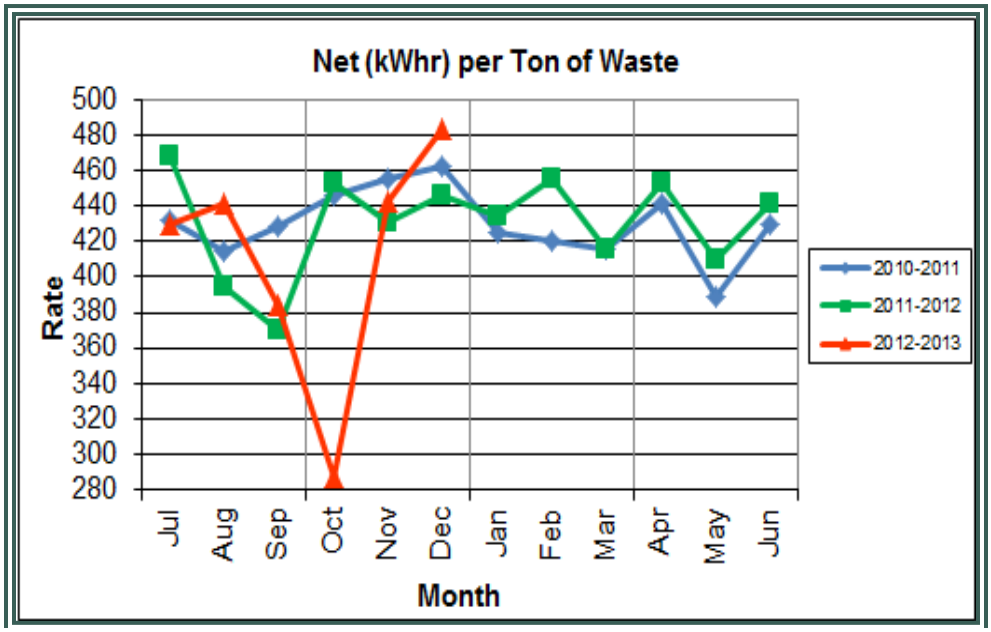
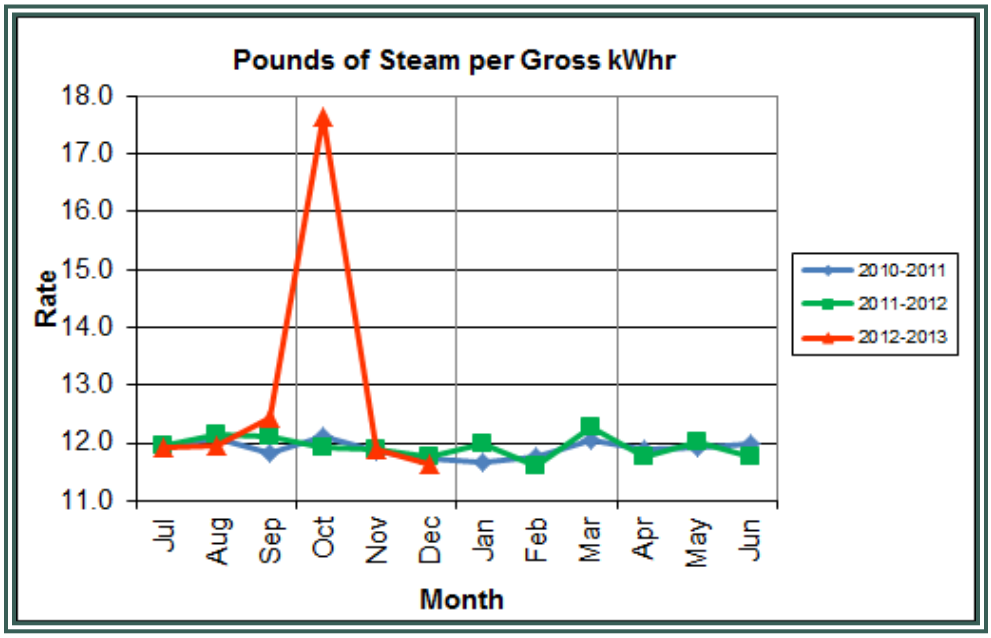


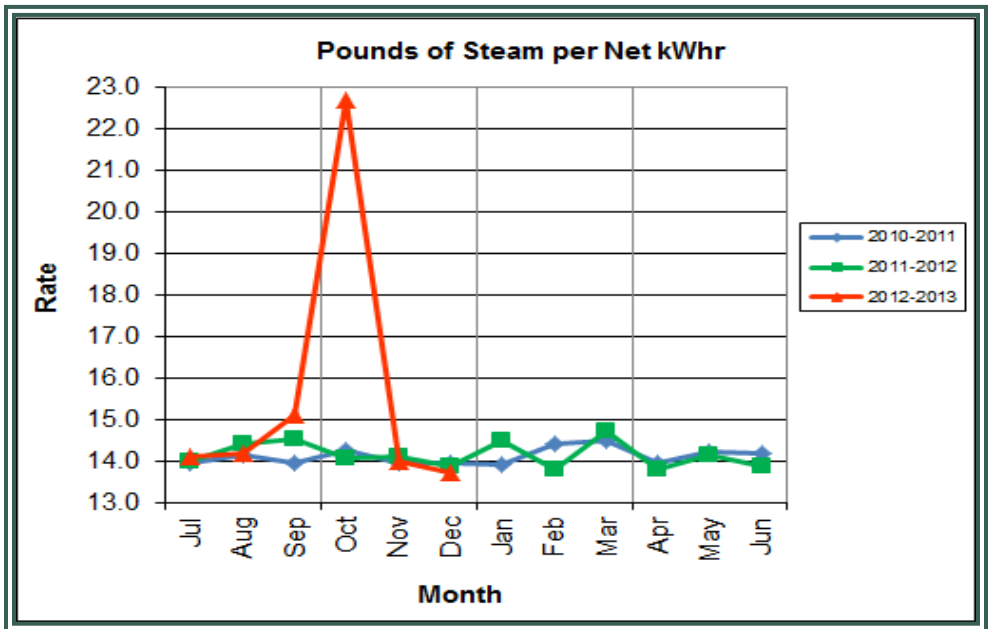
Chart 13 depicts the net power generation per processed ton. The net electrical generation per processed ton in Q2FY13 was 404 kWhr, which is 8.8% lower than the corresponding quarter in FY12.

Chart 14: Gross Turbine Generator Conversion Rate



Charts 14 and 15 illustrate the quantities of steam required to generate one kWhr of electricity, gross and net respectively. This measure is a turbine generator performance indicator, where lower steam rates indicate superior performance. For simplification, this calculated rate is based on the average for the two turbine generators. In Q2FY13 the average lbs of steam consumed per gross kWhr was 13.3, which is significantly higher (12.0%) than the corresponding quarter Q2FY12. The average lbs of steam consumed per net kWhr was 16.0, which is significantly higher (14.1%) than the corresponding quarter in FY12. The average steam temperature during the quarter was 675.1 F, which is lower (1.2%) than the average steam temperature of the corresponding quarter last year, and 24.9^{o} F lower than design temperature of 700^{o} F.

Chart 15: Net Turbine Generator Conversion Rate



5.0 Facility Availability

Facility availabilities for Q2FY13 are shown in Table 4. According to CAAI reports, the average unit availabilities for Boiler Nos. 1, 2, and 3 for Q2FY13 were 96.8%, 94.8%, and 100.0%, respectively. The three-boiler average availability during the quarter was 97.2%, which is good.

During Q2FY13, the average availability for Turbine Generator Nos. 1 and 2 was 76.6% and 98.3%. The two-turbine generator average availability during the quarter was 87.5%, which is below normal, and attributable to the Turbine Generator No. 1 Overhaul in October.

Table 4: Quarterly Facility Unit Availabilities

Availability	Q1FY13 Average	Q2FY13 Average	FY13 YTD Average
Boiler No. 1	95.4%	96.8%	96.1%
Boiler No. 2	94.7%	94.8%	94.8%
Boiler No. 3	90.2%	100.0%	95.1%
Avg.	***93.5%***	***97.2%***	***95.3%***
Turbine No. 1	97.5%	76.6%	87.0%
Turbine No. 2	97.5%	98.3%	97.9%
Avg.	***97.5%***	***87.5%***	***92.5%***

5.1 Facility Operations

During Q2FY13, the Facility experienced one (1) instance of unscheduled downtime for the boilers totaling 5.8 hours, and three (3) instances of unscheduled downtime for the turbine generators totaling 39.9 hours. On October 9th, Turbine Generator No. 2 experienced 12.9 hours of downtime for inlet control valve rack repairs. Both turbine generators continued September scheduled maintenance into October with Turbine Generator No. 1 being offline for 494.5 hours (549.5 hours total), and Turbine Generator No. 2 being offline for 24.0 hours (77 hours total). Boiler No. 1 continued scheduled maintenance that began in September and was offline 64.7 hours (144.7 hours total). Details from Boiler Nos. 1 and 3 fall outages were provided during the last quarterly report. Beginning October 29th, Turbine Generator No. 2 experienced 10.7 hours standby time attributable to inclement weather precautions from Hurricane Sandy. On November 12th and 29th, Turbine Generator No. 1 experienced 25.5 and 1.5 hours of unscheduled downtime, respectively, for turbine inlet valve rack repairs. On December 6th, Boiler No. 1 experienced 5.8 hours of unscheduled downtime attributable to an Air Pollution Control (APC) Programmable Logic Controller (PLC) malfunction. Beginning December 5th, repairs of a broken main city water line to the Facility caused standby time on Boiler Nos. 1 (22.0 hours) and 3 (31.0 hours), as well as Turbine Generator No. 2 (29.4 hours). Beginning December 24th, Boiler No. 3 was secured for 36.7 standby hours as a result of low waste inventory.

The primary scope of work completed during the Turbine Generator No. 1 outage was the installation of new Woodward 505 Turbine Governor Controls, Bentley Nevada Vibration and Temperature Monitoring System, and the Over-speed Protection System. Also completed during the outage were electrical terminations on the turbine generator resistance temperature detectors (RTDs) and speed pick-up probes.

Beginning November 10th, Boiler No. 2 experienced 111.5 hours of downtime for scheduled maintenance. Some significant maintenance items conducted during the outage included:

- Installation of a new convection pass hopper double dump valve

- Replacement of two (2) driving beam wear strips on the grate mechanism
- Replacement of several driving beam support and guide rollers
- Installation of a new cooler on the hydraulic skid
- Replacement of the inlet side baffle plates on the 4th and 5th floor levels
- Replacement of a 6-foot by 13-foot piece of plating on the feed chute water jacket
- Replacement of G9B Nos. 2, 3, 4, and 8 Soot Blower Lances
- Repair of several holes in the baghouse outlet duct
- Replacement of the 1st chemical injection valve off the steam drum

Additional maintenance was conducted during Q2FY13 with the completion of 2,208 preventative maintenance items.

5.2 Utility and Reagent Consumptions

Table 5: Facility Utility and Reagent Consumptions

Utility	Units	Q2FY13 Total	Q2FY12 Total	Q2FY13"Per Processed Ton" Consumption	Q2FY12"Per Processed Ton" Consumption	FY13 YTD Total
Purchased Power	MWhr	5,564	5,503	0.07	0.06	11,042
Fuel Oil	Gal.	13,570	8,320	0.16	0.09	27,450
Boiler Make-up	Gal.	1,650,000	1,481,000	19.45	16.85	3,683,000
Cooling Tower Make-up	Gal.	17,184,904	36,844,884	202.60	419.25	61,798,719
Pebble Lime	Lbs.	1,332,000	1,414,000	15.70	16.09	2,428,000
Ammonia	Lbs.	142,000	137,000	1.67	1.56	278,000
Carbon	Lbs.	104,000	108,000	1.23	1.23	206,000
Dolomitic Lime	Lbs.	154,000	404,000	1.82	4.60	470,000

Fuel oil usage during the quarter represents approximately 0.25% of the total heat input to the boilers, which compares favorably with industry averages, and is higher than the percentage in Q2FY12 at 0.15%. Fuel oil is used to stabilize combustion of wet fuel, as well as start-up and shut-down of the boilers for maintenance. Boiler makeup water usage during the quarter represents 3.1% of steam flow, and is acceptable. Pebble lime usage, at 1,332,000 lbs. is lower (5.8%) than the corresponding quarter last year, and the quarterly consumption rate of 15.7 lbs/ton is below historical levels (16-18 lbs/ton).

In comparing Q2FY13 to Q2FY12 on a per processed ton consumption basis:

- the purchased power consumption rate was 4.8% higher
- the total fuel oil consumption rate was 69.0% higher
- the boiler make-up water consumption rate was 15.4% higher
- the cooling tower make-up water consumption rate was 51.7% lower
- the total pebble lime consumption rate was 2.4% lower
- the ammonia consumption rate was 7.4% higher
- the carbon consumption rate was 0.2% lower
- the total dolomitic lime consumption rate was 60.5% lower

The significant increase of fuel oil usage during the quarter is attributable to startup/shutdown activities associated with the fall outage season. The significant decrease in dolomitic lime consumption rate was achieved while maintaining ash pH within the desired range, and may be related to the aforementioned decrease in ash moisture level.

6.0 Environmental

The retrofit air pollution control equipment maintained emission concentrations well within the established regulations. Average Continuous Emission Monitoring System (CEMS) data collected for each monthly period during Q2FY13 are summarized in Appendix A. The Facility experienced two (2) Reportable Exempt (RE) permit exceedances during the quarter, which are summarized in Table 6, and as follows:

On October 31st, Boiler No. 3 4-hour Carbon Monoxide (CO) levels reached 261 ppm (100 ppm limit), attributable to a burner malfunction caused by a feed chute transition plug.

On December 26th, Boiler No. 3 Opacity limit (10%) was exceeded 13 times due to the Cooling Tower mist being drawn into the ductwork of the opacity monitors during a heavy storm. CAAI reported that it completed modifications to the cooling air blower

system of the opacity monitors on all the units to prevent reoccurrence of this type of false alarm.

Table 6: Quarterly Environmental Excursions

Number	Date	Excursion	Exempt
1	10/31/12	Boiler No. 3 4-hour CO levels reached 261 ppm (100 ppm limit)	Yes
2	12/26/12	Boiler No. 3 Opacity limit (10%) exceeded 13 times	Yes

6.1 Nitrogen Oxide Emissions

During Q2FY13, the monthly emission concentrations of nitrogen oxides (NO_x) averaged 169.0 ppmdv, 162.7 ppmdv and 162.0 ppmdv for Boiler Nos. 1, 2, and 3, respectively. CAAI continues to operate the units at the lower (160 ppmdv) set-points, except immediately following a scheduled outage and associated boiler cleaning. This reduction is a voluntary measure as requested by the Trustees.

6.2 Sulfur Dioxide Emissions

During Q2FY13 the monthly emission concentration of stack sulfur dioxide (SO_2) averaged 2.3 ppmdv, for Boiler No. 1, and 1.3 ppmdv for Boiler Nos. 2 and 3. All of these stack SO_2 concentrations are significantly below the 40 CFR Subpart Cb requirement of 29 ppmdv @ 7% O_2.

6.3 Carbon Monoxide Emissions

During Q2FY13, the average CO emission concentrations on Boiler Nos. 1, 2, and 3 were 36.3 ppmdv, 37.3 ppmdv, and 33.0 ppmdv, respectively, and all are well within permit limits (100 ppmdv, hourly average).

6.4 Opacity

During Q2FY13, the average opacity for Boiler Nos. 1 and 2 was 1.1%, and 0.9% for Boiler No. 3. All of these averages are significantly below the 10% (6-minute) average permit limit.

6.5 Daily Emissions Data

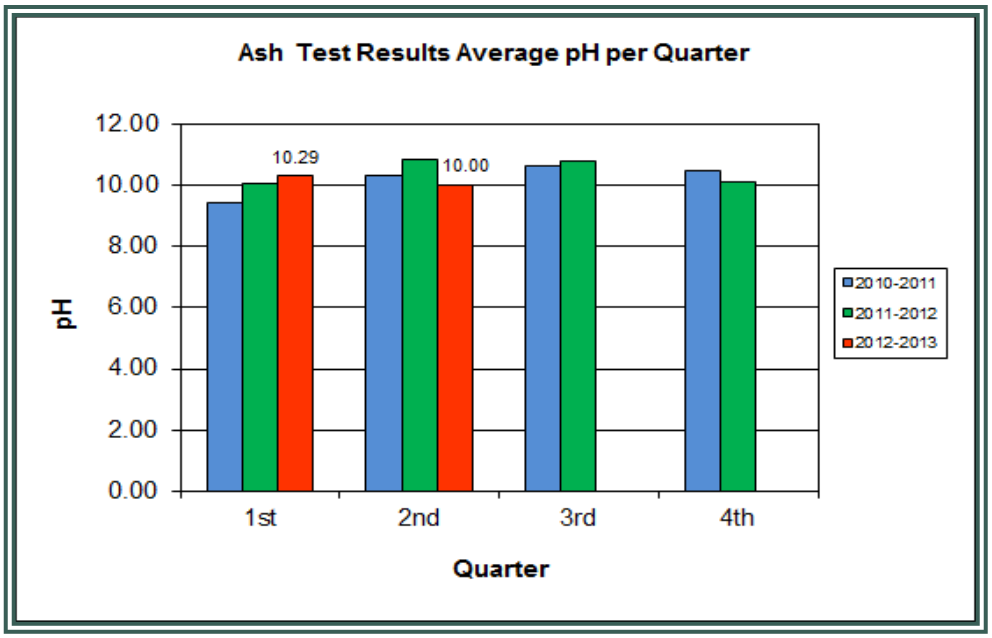
Appendix A, Tables 8, 9, and 10 tabulate the monthly average, maximum, and minimum emissions data for each unit during Q2FY13. Excursions, if any, would appear in bold print. It should be noted that these tabulations of monthly averages, reported here for informational purposes, are based on tabulations of daily averages. These averages do not correlate with official reports to the regulatory agencies because of differences in averaging times and other technical differences required by agency report formats.

6.6 Ash System Compliance

The dolomitic lime feed rate is adjusted periodically in order to maintain a desired ash pH level in the range of 8.0 to 11.0. Since initial startup, the feed rate has varied from between 4 to 9 lbs per ton. Ash Toxicity (TCLP) tests were not performed during Q2FY13.

CAAI samples ash monthly and documents pH reading to adjust dolomitic lime feed rate. The results for the ash pH tests are shown below in Chart 16 where each quarter is represented by the average of the respective monthly readings. During Q2FY13, the average ash pH for in-house tests was 10.0.

Chart 16: Ash Test Results



6.7 Steam Production Issues

In October, 2007, VADEQ issued CAAI a "Warning Letter" (WL) regarding alleged violations of Condition 14 of the Facility's Prevention of Significant Deterioration (PSD) permit issued in 2002. In response to the WL, CAAI recalculated annual steam production totals according to the VADEQ's methodology which was to track the annual limit on a monthly basis, by adding the current month's production to the previous 11 months' total, and comparing it to the annual 1.12 million ton limit (Previously, CAAI tracked the annual limit on a calendar year basis, and not monthly). The recalculated data showed that the Facility exceeded the steam production limits on several occasions. Although there were not any exceedances of air emissions at the Facility, VADEQ issued a Notice of Violation (NOV) on February 29, 2008.

In March 2009, CAAI and VADEQ entered into a letter of agreement (LOA) to resolve the alleged violations. The tenets of the agreement stipulate that:

> The annual steam production for the Facility shall not exceed 1,170,400 tons on the basis of an average value of 3.34 lbs of steam per lb of MSW processed, calculated monthly as the sum of each consecutive 12 month period, as compared to the measured totalized steam flow that was previously used.

Chart 5 on page 11 depicts the steam production total calculated monthly as the sum of each consecutive 12-month period.

While the agreement with DEQ settled a long-standing issue and clarifies the methodology to be used, HDR considers it to be a flawed approach, and not consistent with general industry practice. The DEQ approach relies on a more-subjective method of calculating steam flow based on the tonnage of waste processed. Determination of monthly tonnage of waste processed relies on estimates of the quantity of waste in the pit, based only on visual observation. In addition, it is well known that waste at the bottom of the pit has significantly higher density (weight per volume) than that at the top of the pit, and this is not factored into the monthly tonnage. Finally, the conversion of MSW tonnage to steam production ignores the variability in waste heating value.

7.0 Facility Maintenance

Throughout the quarter, significant routine and planned maintenance was performed. HDR considers that the Facility is implementing a very effective maintenance regimen, and is performing routine and preventative maintenance, along with selected equipment replacements in a timely manner. CAAI monthly maintenance reports provide a detailed account of maintenance performed.

7.1 Safety

The plant had no recordable accidents during the quarter. The plant has operated 774 days without an OSHA recordable incident through the end of December 2012. Safety training was conducted during the quarter with themes as follows:

October 2012 - Emergency Action Plan
November 2012 - Hand and Portable Power tools and Equipment Safety/Fall Protection
December 2012 - Tipping Floor and Mobile Equipment (Safety Procedure #25)

7.2 Facility Housekeeping

CAAI is performing Facility housekeeping and maintaining plant cleanliness in accordance with acceptable industry practices. A Site inspection was conducted in November 2012. At the time of the inspections, new deficiencies were recorded and prior deficiencies were given a status updates. Photos of interest from the inspection are depicted in Appendix B. The Facility housekeeping ratings from the November 2012 inspection are presented in Table 7.

Table 7: Facility Housekeeping Ratings – November 2012

Facility Area	Highly Acceptable	Acceptable	Needs Improvement	Unacceptable
Tipping Floor		√		
Citizen's Drop-off Area		√		
Tipping Floor Truck Exit		√		
Front Parking Lot		√		
Rear Parking Lot		√		
Boiler House Pump Room		√		
Lime Slurry Pump Room		√		
Switchgear Area		√		
Ash Load-out Area		√		
Vibrating Conveyor Area	√			
Ash Discharger Area		√		
Cooling Tower Area		√		
Truck Scale Area		√		
SDA/FF Conveyor Area		√		
SDA Penthouses		√		
Lime Preparation Area		√		
Boiler Drum Levels		√		
Turbine Room	√			
Electrical Room		√		

APPENDIX A
FACILITY CEMS DATA

Table 8: Unit #1 Monthly Summary for Reportable Emissions Data

Group#-Channel#		G8-C35	G8-C28	G8-C8	G8-C4	G8-C12	G8-C34	G8-C37	G8-C40	G8-C39
Long Descrip.		U-1 Steam	U-1 Econ	U-1 Stack	U-1 Stack	U-1 Stack	U-1 Opaci	U-1 FF In	U-1 Carbo	U-1 Lime
Short Descrip.		SteamFl	SO_2ec	SO_2sc	COsc	NO_xsc	Opacity	FF InTemp	CarbInj	LimeFlow
Units		K#/Hr	ppmc	ppm	ppmc	ppmc	%	deg F	#/hr	gpm
Range		0-100	0-2000	0-500	0-4000	0-1000	0-100	100-500	0-50	0-20
Oct-12	AVG	86.4	71.0	3.0	30.0	177.0	1.0	302.0	16.9	3.5
	Max	94.4	116.0	10.0	39.0	194.0	2.7	305.0	17.5	5.2
	Min	70.2	41.0	0.0	15.0	161.0	0.2	299.0	16.6	2.9
Nov-12	AVG	88.2	47.0	2.0	40.0	166.0	1.6	303.0	16.6	3.2
	Max	90.8	68.0	6.0	47.0	195.0	2.9	305.0	17.2	3.7
	Min	80.1	35.0	0.0	30.0	160.0	0.7	302.0	16.1	2.7
Dec-12	AVG	84.4	36.0	2.0	39.0	164.0	0.8	303.0	16.5	3.1
	Max	92.6	52.0	8.0	54.0	189.0	1.1	305.0	16.9	4.9
	Min	62.4	22.0	0.0	18.0	160.0	0.2	300.0	16.4	2.4
Quarter Average		86.3	51.3	2.3	36.3	169.0	1.1	302.7	16.7	3.3
Quarter Max Value		94.4	116.0	10.0	54.0	195.0	2.9	305.0	17.5	5.2
Quarter Min Value		62.4	22.0	0.0	15.0	160.0	0.2	299.0	16.1	2.4
Limits:		NA	NA	29	100	205	10	320	16(a)	

(a) Carbon flow limit is a minimum value

* Note: The data reported herein represent 24 hour average data for all parameters. Emissions excursions that are measured on shorter time intervals (ie., 4-hour block averages for CO) do not correlate with the 24 hour average data reported above.

Table 9: Unit #2 Monthly Summary for Reportable Emissions Data

Group#-Channel#		G8-C35	G8-C28	G8-C8	G8-C4	G8-C12	G8-C34	G8-C37	G8-C40	G8-C39
Long Descrip.		U-2 Steam	U-2 Econ	U-2 Stack	U-2 Stack	U-2 Stack	U-2 Opaci	U-2 FF In	U-2 Carbo	U-2 Lime
Short Descrip.		SteamFl	SO_2ec	SO_2sc	COsc	NO_xsc	Opacity	FF InTemp	CarbInj	LimeFlow
Units		K#/Hr	ppmc	ppm	ppmc	ppmc	%	deg F	#/hr	gpm
Range		0-100	0-2000	0-500	0-4000	0-1000	0-100	100-500	0-50	0-20
Oct-12	AVG	86.8	29.0	1.0	33.0	162.0	0.8	300.0	16.5	3.0
	Max	93.8	57.0	5.0	43.0	190.0	3.5	305.0	17.4	3.7
	Min	67.8	10.0	0.0	24.0	154.0	0.1	298.0	16.4	2.4
Nov-12	AVG	86.2	47.0	2.0	43.0	166.0	1.4	300.0	16.4	3.2
	Max	91.4	79.0	6.0	56.0	191.0	2.7	302.0	16.5	3.9
	Min	73.6	10.0	0.0	34.0	150.0	0.3	299.0	16.4	2.6
Dec-12	AVG	83.9	45.0	1.0	36.0	160.0	1.1	300.0	16.4	3.1
	Max	91.9	68.0	7.0	50.0	181.0	4.6	305.0	16.7	4.9
	Min	62.1	30.0	0.0	22.0	153.0	0.0	299.0	16.3	2.7
Quarter Average		85.6	40.3	1.3	37.3	162.7	1.1	300.0	16.4	3.1
Quarter Max Value		93.8	79.0	7.0	56.0	191.0	4.6	305.0	17.4	4.9
Quarter Min Value		62.1	10.0	0.0	22.0	150.0	0.0	298.0	16.3	2.4
Limits:		NA	NA	29	100	205	10	320	17(a)	

(a) Carbon flow limit is a minimum value

* Note: The data reported herein represent 24 hour average data for all parameters. Emissions excursions that are measured on shorter time intervals (ie., 4-hour block averages for CO) do not correlate with the 24 hour average data reported above.

Table 10: Unit #3 Monthly Summary for Reportable Emissions Data

Group#-Channel#		G8-C35	G8-C28	G8-C8	G8-C4	G8-C12	G8-C34	G8-C37	G8-C40	G8-C39
Long Descrip.		U-3 Steam	U-3 Econ	U-3 Stack	U-3 Stack	U-3 Stack	U-3 Opaci	U-3 FF In	U-3 Carbo	U-3 Lime
Short Descrip.		SteamFl	SO_2ec	SO_2sc	COsc	NO_xsc	Opacity	FF InTemp	CarbInj	LimeFlow
Units		K#/Hr	ppmc	ppm	ppmc	ppmc	%	deg F	#/hr	gpm
Range		0-100	0-2000	0-500	0-4000	0-1000	0-100	100-500	0-50	0-20
Oct-12	AVG	87.7	64.0	2.0	31.0	164.0	0.8	296.0	16.4	3.2
	Max	95.8	94.0	10.0	68.0	194.0	1.8	297.0	17.2	3.8
	Min	65.7	39.0	0.0	22.0	146.0	0.5	289.0	16.1	2.3
Nov-12	AVG	90.2	50.0	1.0	34.0	163.0	1.0	296.0	16.2	3.0
	Max	92.6	68.0	4.0	46.0	193.0	1.5	298.0	17.1	3.4
	Min	81.5	39.0	0.0	21.0	158.0	0.6	294.0	16.0	2.4
Dec-12	AVG	85.1	44.0	1.0	34.0	159.0	1.0	296.0	16.4	3.0
	Max	92.8	67.0	10.0	52.0	183.0	2.4	296.0	19.5	4.1
	Min	64.7	30.0	0.0	17.0	146.0	0.0	290.0	16.2	2.5
Quarter Average		87.7	52.7	1.3	33.0	162.0	0.9	296.0	16.3	3.1
Quarter Max Value		95.8	94.0	10.0	68.0	194.0	2.4	298.0	19.5	4.1
Quarter Min Value		64.7	30.0	0.0	17.0	146.0	0.0	289.0	16.0	2.3
Limits:		NA	NA	29	100	205	10	320	16(a)	

(a) Carbon flow limit is a minimum value

* Note: The data reported herein represent 24 hour average data for all parameters. Emissions excursions that are measured on shorter time intervals (ie., 4-hour block averages for CO) do not correlate with the 24 hour average data reported above.

APPENDIX B
SITE VISIT PHOTOS

Figure 1: Upper Elevations – No Steam Leaks Noted

Figure 2: Spare Crane Grapple

Figure 3: Deaerator – Small Leak Noted

Figure 4: Top of Pit Area

Figure 5: SDA Atomizer

Figure 6: Combustion Air to Burners for Purge

Figure 7: Both Double Dump Valves in Open Position on Economizer No. 1 Hopper (Improper Alignment)

Figure 8: Cable Trays – Very Good Housekeeping

Figure 9: Cooling Tower – Only New 2x4 Around Perimeter

Figure 10: Steam Coil Air Heaters – No Leaks Observed

Figure 11: Main Condenser

Figure 12: Front Overfire Air header Damper Fully Open

Figure 13: Dry Ash System Nozzles

Figure 14: Radioactive Level Detector for Semi-Dry Ash System

Figure 15: Furnace Camera

Figure 16: Boiler No. 2 – Top of First Pass

Figure 17: Ammonia Injection Station & Lance

Figure 18: Boiler No. 2 – Top of First Pass – Screen Tubes

Figure 19: Deaerator – Housekeeping Good

Figure 20: Boiler No. 2 Superheater Bank – Shields Marked for Replacement (red)

Figure 21: Firing Aisle – Housekeeping Very Good

Figure 22: Boiler No. 3 Continuous Emissions Monitoring System (CEMS) - Protected

Figure 23: Boiler No. 2 Sootblowers – Excellent Housekeeping

Figure 24: Economizer Sootblowers