

Alexandria Arlington Resource Recovery Facility

Fiscal Year 2017
Second Quarter Operations Report

January 2017



Prepared by:

HDR Engineering, Inc.
5426 Bay Center Drive, Suite 400
Tampa, Florida 33609-3444



Table of Contents

Section No.	Page No.
1.0 PURPOSE OF REPORT	4
2.0 EXECUTIVE SUMMARY.....	4
3.0 FACILITY INSPECTION AND RECORDS REVIEW.....	5
4.0 FACILITY PERFORMANCE	9
4.1 Utility and Reagent Consumptions.....	23
4.2 Safety & Environmental Training.....	24
5.0 FACILITY MAINTENANCE	25
5.1 Availability	27
5.2 Downtime Summary.....	28
5.3 Facility Housekeeping.....	29
6.0 ENVIRONMENTAL	30
6.1 Nitrogen Oxide Emissions.....	30
6.2 Sulfur Dioxide Emissions	30
6.3 Carbon Monoxide Emissions	30
6.4 Opacity.....	31
6.5 Daily Emissions Data	31
6.6 Ash System Compliance	31
APPENDIX A FACILITY CEMS DATA.....	33
APPENDIX B PHOTOS	37

Front Cover Photos

Top: Dolomitic Lime Silo, Economizer & SDA No. 3

Middle: Scalehouse and Facility Roadways – Photo from Turbine Generator Enclosure Roof

Bottom: General Facility Photo from up Eisenhower

List of Tables

Table No.	Page No.
Table 1: Summary of Inspection Report Deficiencies	7
Table 2: Quarterly Performance Summaries	15
Table 3: Waste Delivery Classification	17
Table 4: Facility Utility and Reagent Consumptions	23
Table 5: Quarterly Facility Unit Availabilities	27
Table 6: Boiler Downtime – Q2FY17	28
Table 7: Turbine Generator Downtime – Q2FY17	28
Table 8: Facility Housekeeping Ratings – November 2016	29
Table 9: Unit #1 Monthly Summary for Reportable Emissions Data	34
Table 10: Unit #2 Monthly Summary for Reportable Emissions Data	35
Table 11: Unit #3 Monthly Summary for Reportable Emissions Data	36

List of Charts

Chart No.	Page No.
Chart 1: Tons of Waste Processed	9
Chart 2: Tons of Ash Produced per Ton of Waste Processed	10
Chart 3: Ferrous Recovery Rate	11
Chart 4: Steam Production	12
Chart 5: 12-Month Rolling Steam Production	13
Chart 6: Steam Production Rate	14
Chart 7: Calculated Waste Heating Value	15
Chart 8: Cumulative Total Waste Delivery	18
Chart 9: Gross Electrical Generation	18
Chart 10: Gross Conversion Rate	19
Chart 11: Net Conversion Rate	20
Chart 12: Net Conversion Rate	20
Chart 13: Gross Turbine Generator Conversion Rate	21
Chart 14: Net Turbine Generator Conversion Rate	22
Chart 15: Quarterly Ash Test Results	32

List of Figures

Figure No.	Page No.
Figure 1: Pavement spider-cracking at Tipping Floor Entrance – New Deficiency	38
Figure 2: Concrete slab damaged that Citizen's Drop-off Roll-off is on – New Deficiency	38
Figure 3: Pothole where Tipping Floor Exit Road enters Eisenhower Avenue – New Deficiency	38
Figure 4: Multiple Cooling Tower Access Stairs Split – New Deficiency	38
Figure 5: Corrosion on Scale House – New Deficiency	38
Figure 6: Boiler No. 3 Outage in Progress – Scaffolding Inside Boiler	38
Figure 7: Boiler No. 3 Outage in Progress – Ash Discharger cleaned out for maintenance	39
Figure 8: Boiler No. 3 Outage in Progress – Maintenance on Superheater Hopper	39
Figure 9: Boiler No. 3 Outage in Progress – Boiler grates and scaffolding	39
Figure 10: Boiler No. 3 Outage in Progress – Superheater tubes and tube shields	39
Figure 11: Firing Aisle	39
Figure 12: External view of repairs to East Tipping Floor Wall – Completion of Deficiency Item No. 4	39
Figure 13: White Goods Roll-Off	40
Figure 14: Citizen's Drop Roll-off	40
Figure 15: Overhead view Ferrous Magnet – Note extension of vibrating pan	40
Figure 16: General Facility View – Photo from east on Eisenhower Avenue	40
Figure 17: General Facility View – Front of Facility	40
Figure 18: General Facility View – Photo from west on Eisenhower Avenue	40
Figure 19: APC Area and Cooling Towers	41
Figure 20: General View of Tipping floor from Entrance	41
Figure 21: New column and louvers on east wall of Tipping Floor	41
Figure 22: Refuse pit – Photo from north end of Charging Floor	41
Figure 23: Ash Trailer Canopy	41
Figure 24: Crane Pulpit	41

Definition of Abbreviations & Acronyms

<u>Abbreviation/Acronym</u>	<u>Definition</u>
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
ECOM	Emergency Communications
Feb	February
FMG	Facility Monitoring Group
FY	Fiscal Year
gal	Gallon
GAT	Guaranteed Annual Tonnage
HCl	Hydrochloric (Hydrogen Chlorides)
HDR	HDR Engineering Inc
HHV	Estimated Waste Heating Value (Btu/lb)
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
MW hr	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 Operations Report – Fiscal Year 2017

1.0 Purpose of Report

HDR Engineering, Inc. (HDR) was authorized by the Facility Monitoring Group (FMG) to conduct quarterly inspections and provide quarterly reports regarding the operation and maintenance of the Covanta Alexandria/Arlington Waste-to-Energy Facility (Facility) for the 2016 calendar year. This report is prepared for the second quarter of the 2017 fiscal year and summarizes Facility operations between October 1, 2016 and December 31, 2016. This report identifies the fiscal year beginning on July 1, 2016 as FY17 and the quarter beginning on October 1, 2016 as Q2FY17.

This report is based upon HDR's experience 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 owner and operator.

2.0 Executive Summary

CAAI operated the Facility in an acceptable manner and in accordance with established waste-to-energy industry practices during Q2FY17. The operation of the Facility, maintenance, safety, and overall cleanliness continue to be above average. Environmental performance was excellent with no reportable environmental excursions throughout the quarter.

During Q2FY17, the Facility experienced one (1) instance of unscheduled downtime for the boilers totaling 9.0 hours, and no unscheduled downtime for turbine generators. There were two (2) scheduled boiler outages during Q2FY17 totaling 252.5 hours. During the quarter, the boilers experienced two (2) instances of standby time totaling 84.0 hours, and the turbine generators experienced one (1) instance of standby time totaling 103.7 hours. Note that

standby time isn't factored into overall availability. A detailed listing of downtime is provided in Section 5.2 of this report.

Average waste processed during the quarter was 930.5 tons per day, or 95.4% of nominal facility capacity. Waste deliveries averaged 920.1 tons per day, which is 1.1% lower than the burn rate. The capacity utilization of 95.4% compares 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 slightly increased (less than 0.1%) from the corresponding quarter in FY16; steam production increased (1.8%), and electricity generated (gross) increased (4.9%) from the corresponding quarter in FY16. The increase in steam generation is attributable to the increase (4.5%) in calculated waste heating value offset by more downtime (20.1 additional hours) and CAAI throttling the boilers back to stay below the steam production limit. The increase in electricity generated (gross) in Q2FY17, is attributed to higher steam production, and less downtime (69.4 fewer hours) experienced by the turbine generators.

3.0 Facility Inspection and Records Review

In November 2016, HDR met with the Facility management and other plant personnel to discuss Facility operations, and maintenance, acquire 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 FMG meeting. At the time of the inspection, HDR reviewed CAAI records, discussed performance issues with CAAI staff, and provided a verbal report and performance statistics at the November 2016 FMG meeting. 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 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.

Note that HDR inspections are generally performed while equipment is operating, and are not intended to address the internal condition, performance or life expectancy of mechanical, electrical and electronic equipment and structures. HDR inspections are only performed quarterly, generally representing findings on the day of the inspection. CAAI is responsible, without limitation, for operations, maintenance, environmental performance and safety and should not rely on HDR observations or inspection reports which are overviews of Facility external conditions only.

Table 1: Summary of Inspection 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.	Inspection Report Deficiencies	Issue Reported	Priority*	HDR Recommendation	Status	Open / Closed
1	Corrosion on ceiling panels in Turbine Generator Enclosure	August 2014	C	Sand, Prime, Paint and Preserve, and replace deteriorated panels as necessary	HDR observed the corroded/deteriorated sections had been primed, but no panels were replaced. CAAI reports that it plans to replace panels in 1 to 2 years.	Open
2	Corrosion on ceiling panels in Turbine Generator Enclosure (Alternate Location)	August 2014	C	Sand, Prime, Paint and Preserve, and replace deteriorated panels as necessary	HDR observed the corroded/deteriorated sections had been primed, but no panels were replaced. CAAI reports that it plans to replace panels in 1 to 2 years.	Open
3	Deteriorated purlin east wall in Tipping Floor Enclosure	November 2014	C	Replace deteriorated purlin	CAAI reports that it will replace sections of the east wall of the Tipping Floor Enclosure as a 2016 Budget Item.	Open
4	Panels on east wall in Charging Floor damaged	February 2015	C	Replace damaged wall panels	Complete	Closed
5	Induced Draft Fan No. 1 Lagging deteriorated, west side of CEMS Enclosure	May 2015	C	Replace deteriorated Induced Draft Fan Lagging	Status Unchanged	Open
6	Pot hole, southeast corner of Ash Trailer Canopy	August 2015	C	Repair road surface	Status Unchanged	Open
7	Holes in Ash Trailer (License Plate: 18 5294C) near ladder	February 2016	C	Report to ash hauling company and assure proper repairs are made	CAAI reports that a new ash hauling company has been contracted and the existing ash trailers will no longer be used at the Facility. This item will be removed from the next Quarterly Report.	Closed

Item No.	Inspection Report Deficiencies	Issue Reported	Priority*	HDR Recommendation	Status	Open / Closed
8	Chemical storage container deteriorated, north of Main Vibrating Pan, at ground elevation	February 2016	A	Replace storage container	During the August 2016 FMG Meeting, CAAI indicated it planned to purchase a new storage container and dispose of the deteriorated container.	Open
9	Safety Cage on Rotary Sootblower No. 27 detached and gears exposed	August 2016	A	Adjust rotary sootblower cage to shield exposed gears	Status Unchanged	Open
10	Underside of grating deteriorated, upper elevations of all three economizers	August 2016	C	Replace economizer grating in upper elevations	Status Unchanged	Open
11	Hole in wall where forklift is typically parked, northwest corner of Main Vibrating Conveyor	August 2016	C	Patch hole in wall	Complete	Closed
12	Emergency eye wash station is leaking, just off CEMS Enclosure	August 2016	C	Repair leaking emergency eye wash station	Complete	Closed
13	Pavement spider-cracking at Tipping Floor Entrance – See Figure 1 (Appendix B)	November 2016	C	Resurface section of pavement at Tipping Floor Entrance	Status Unchanged	Open
14	Concrete slab damaged that Citizen's Drop-off Roll-off is on – See Figure 2 (Appendix B)	November 2016	C	Repair concrete slab	Status Unchanged	Open
15	Pothole where Tipping Floor Exit Road enters Eisenhower Avenue – See Figure 3 (Appendix B)	November 2016	C	Repair pothole	Status Unchanged	Open
16	Multiple Cooling Tower Access Stairs Split – See Figure 4 (Appendix B)	November 2016	A	Replace damaged stairs	Status Unchanged	Open
17	Corrosion on Scale House – See Figure 5 (Appendix B)	November 2016	C	Conduct proper painting preservation measures on corroded spots of Scale House	Status Unchanged	Open

4.0 Facility Performance

Monthly operating data provided by CAAI indicates that 85,603 tons of MSW were processed during Q2FY17, and a total of 84,648 tons of MSW including 2,902 tons of Special Handling Waste were received. Total ash production during the quarter was 17,953 tons, which represents 21.0% of the waste processed by weight. The average uncorrected steam production rate for Q2FY17 was 3.12 $\text{ton}_{\text{Steam}}/\text{ton}_{\text{waste}}$, which is higher (1.7%) than the corresponding quarter in FY16. The increase in this metric does not correlate with the 4.5% increase in the average waste heating value (HHV) calculated by CAAI, and is indicative of poorer boiler performance or some other currently unidentified cause. This trend continues to be unexplained.

Chart 1: Tons of Waste Processed

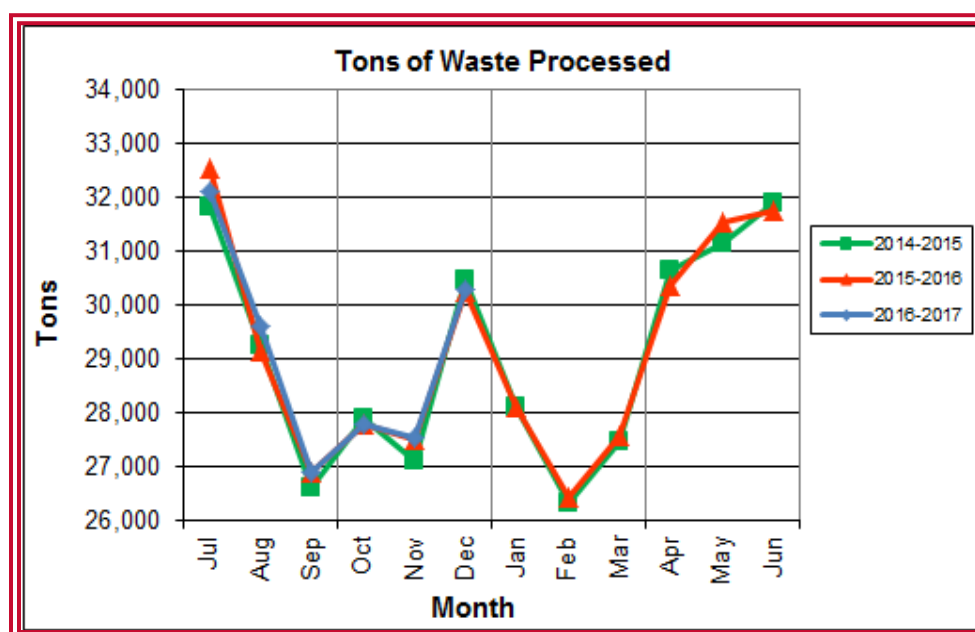


Chart 1 illustrates that Q2FY17 waste processed was ever so slightly higher (less than 0.1%) than the corresponding quarter, Q2FY16.

CAAI reported that 471 tipping floor/MSW internal inspections were conducted during the quarter and three (3) notices of violation (NOVs) were issued to haulers for the following issues:

- October 2016 – One (1) NOV was issued for unloading refuse without getting a ticket

- November 2016 – Two (2) NOVs were issued for:
 - One (1) NOV for driving on the scale in the wrong direction and damaging the radiation detector
 - One (1) NOV for not following safety procedures and being too close to the pit.

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

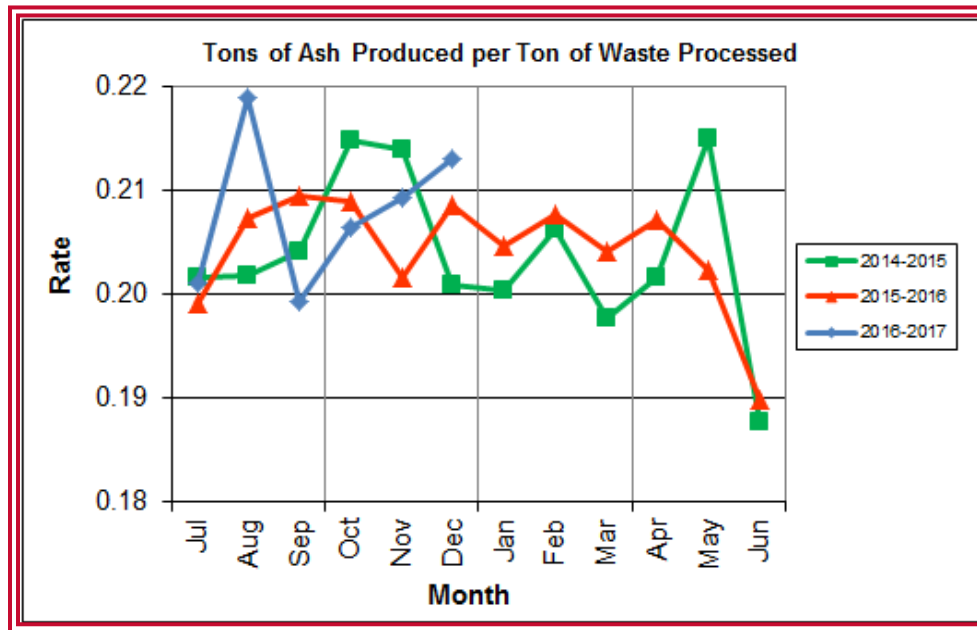


Chart 2 illustrates that the average ash production rate in Q2FY17 was higher (0.4%) at 21.0% of processed waste, compared to the corresponding quarter in FY16 when the rate was 20.6%. Ash production remains in the 20.0% to 21.0% range, as a result of the installation of the “semi-dry” ash discharger spray system in May 2012, and represents less moisture in the ash residue shipped to disposal.

Chart 3: Ferrous Recovery Rate

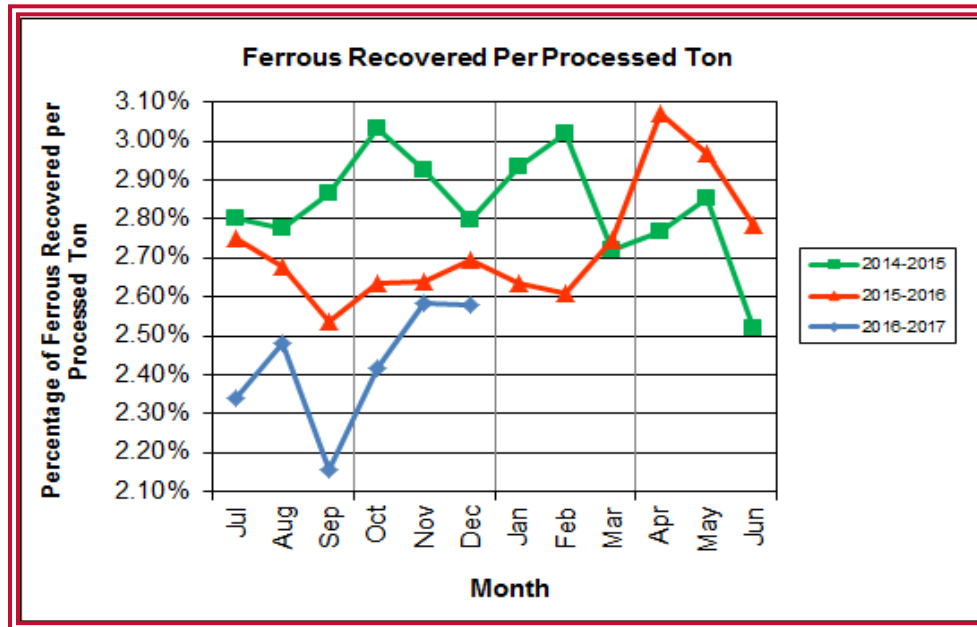
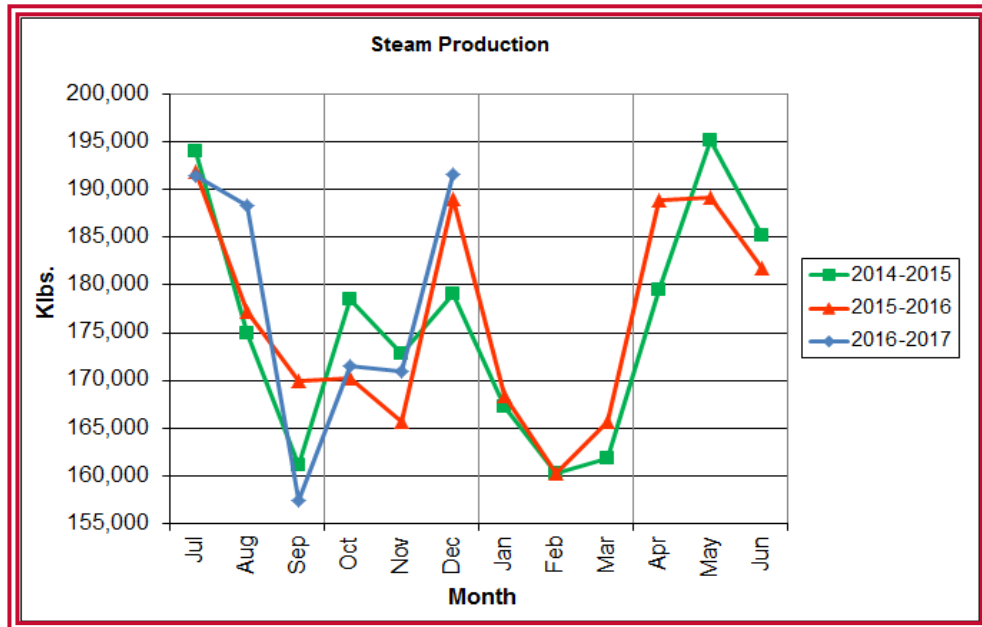


Chart 3 depicts the monthly ferrous metal recovery rate as a percentage of processed MSW tonnage. In Q2FY17, 2,163 tons of ferrous metals were recovered, which is 4.9% lower than the corresponding quarter in FY16 and equivalent to 2.5% of processed waste. CAAI indicated that it replaced an end section of the vibrating pan during Q1FY16 which was worn due to wear from material getting caught between the pan and magnet. However, ferrous metal recovery remains significantly below prior results. CAAI attributes the significant decline to an increase in recycling rates resulting in less metal in the MSW.

Chart 4: Steam Production



In Chart 4, the total steam production for Q2FY17 was 534,113 klbs., and higher (1.8%) than the corresponding quarter in FY16. The increase in steam generation is attributable to the increase (4.5%) in calculated waste heating value offset by more downtime (20.1 additional hours) and CAAI throttling the boilers back to stay below the steam production limit.

Chart 5: 12-Month Rolling Steam Production

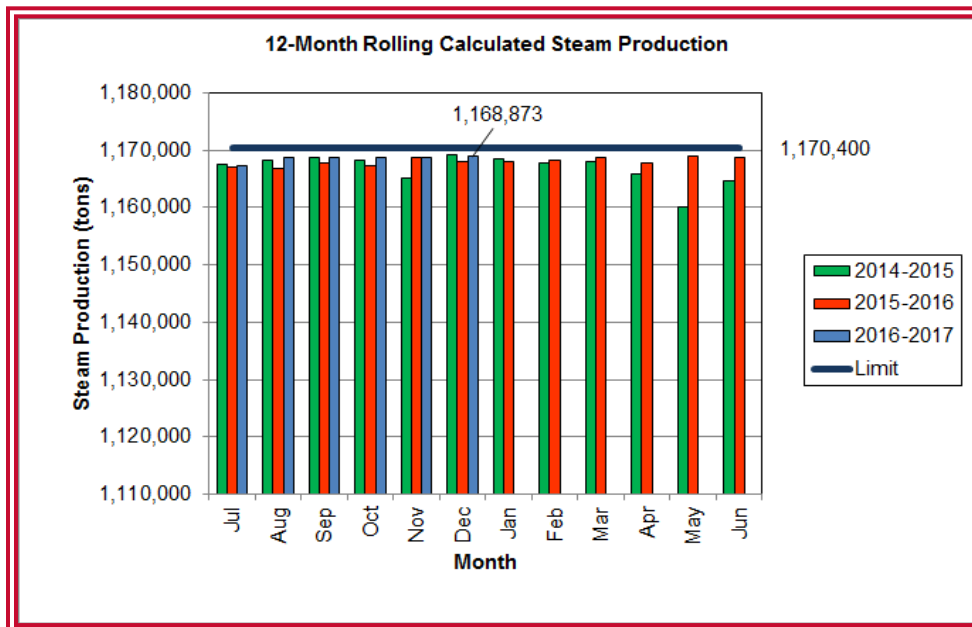
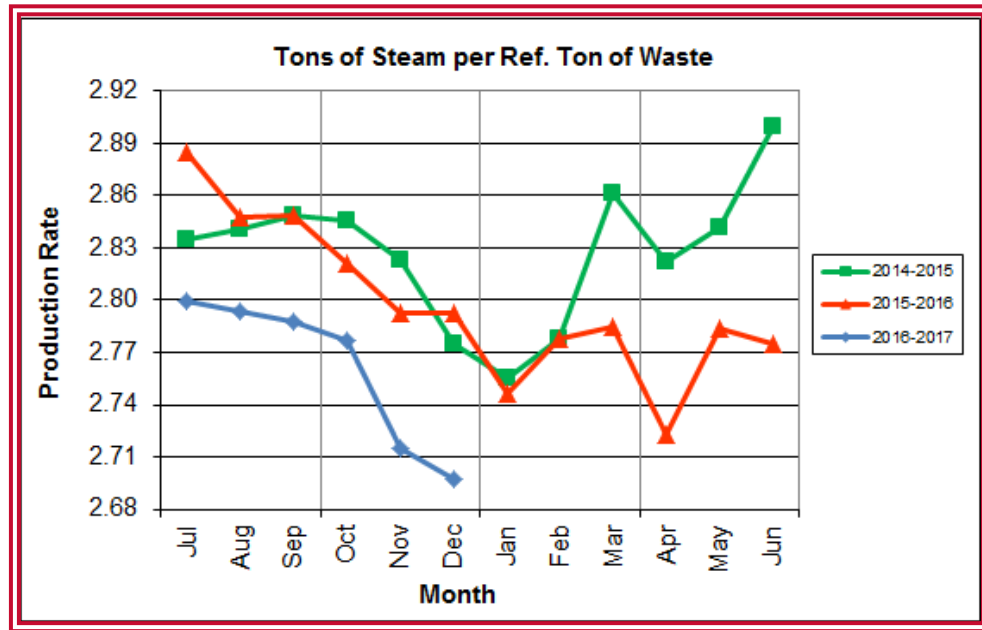


Chart 5 depicts the 12-month rolling steam production total for the period ending in December 2016. According to the Title V permit, the annual steam production for the Facility shall not exceed 1,170,400 tons on the basis of an average value of 3.34 lbs of steam per lb of MSW processed, calculated monthly 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 Q2FY17. The 12-month rolling total for steam production ending in December 2016 was 1,168,873 tons which is 99.9% of the limit. Chart 5 clearly shows that Facility throughput, and in turn, steam and electricity production are being throttled to stay ever so slightly below the steam production limit nearly every month.

Chart 6: Steam Production Rate



In Chart 6, the conversion of raw waste tonnages into “reference tons” is another way of analyzing 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 Q2FY17, this metric tracked lower (2.6%) at 2.7 tons_{steam}/ton_{ref}, compared to the corresponding quarter in FY16. This trend should continue to be monitored to determine if it is indicative of poorer boiler performance, an aberration during scheduled outage periods, or some other currently unexplained cause.

Chart 7: Calculated Waste Heating Value

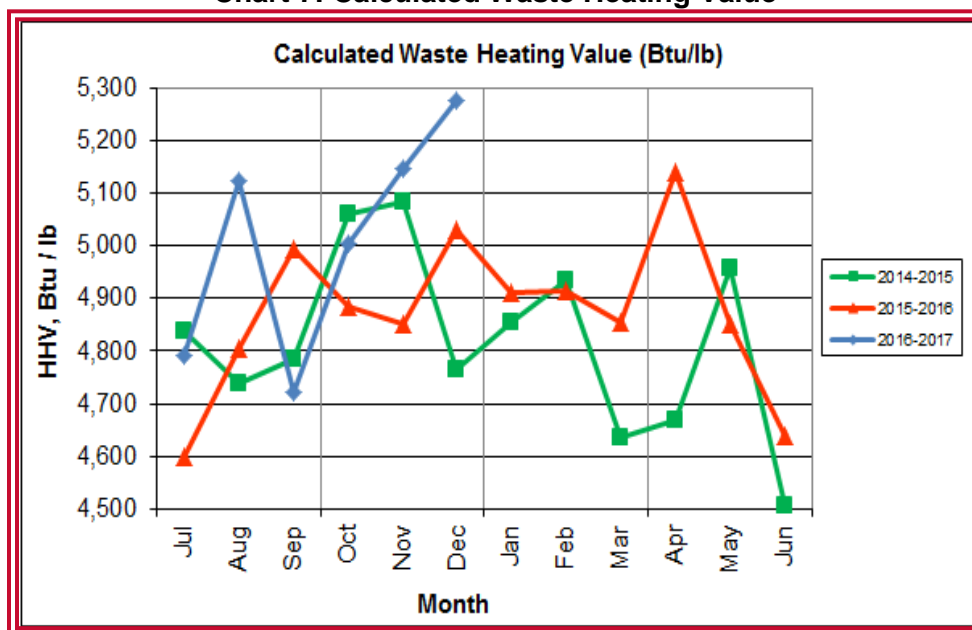


Chart 7 illustrates that Q2FY17 calculated average waste heating value was higher (4.5%) at 5,142 Btu/lb than the corresponding quarter Q2FY16, which averaged 4,922 Btu/lb.

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 (MWhr)
Q2FY15	Quarterly Totals	85,456	0	17,912	1,814	2,492	530,413	37,911
	October -14	27,883	0	5,990	521	846	178,450	12,745
	November -14	27,099	0	5,799	764	793	172,875	12,276
	December -14	30,474	0	6,123	529	853	179,088	12,890
Q2FY16	Quarterly Totals	85,572	0	17,669	2,147	2,274	524,844	36,665
	October -15	27,796	0	5,807	684	732	170,190	11,899
	November -15	27,510	0	5,549	676	726	165,681	11,626
	December -15	30,266	0	6,313	787	816	188,973	13,140
Q2FY17	Quarterly Totals	85,603	0	17,953	2,902	2,163	534,113	38,588
	October -16	27,778	0	5,734	926	671	171,525	12,140
	November -16	27,525	0	5,762	941	711	170,976	12,229
	December -16	30,300	0	6,457	1,035	781	191,612	14,219
FY17 YTD Totals		174,225	0	36,260	4,782	4,229	1,071,236	75,955
FY16 Totals		349,881	0	71,401	8,567	9,571	2,118,125	148,529
FY15 Totals		348,686	0	71,019	5,413	9,864	2,109,442	145,085

Table 2 presents the production data provided to HDR by CAAI for Q2FY17 on both a monthly and quarterly basis. For purposes of comparison, data for

Q2FY15 and Q2FY16 are also shown, as well as FY15, FY16 and FY17 YTD totals.

In comparing quarterly totals, the data shows:

- Slightly more waste was processed in Q2FY17 than Q2FY16 and Q2FY15
- More steam was generated in Q2FY17 than Q2FY16 and Q2FY15
- More electricity was generated in Q2FY17 than Q2FY16 and Q2FY15
- More supplemental waste was received in Q2FY17 than Q2FY16 and significantly more than in Q2FY15.

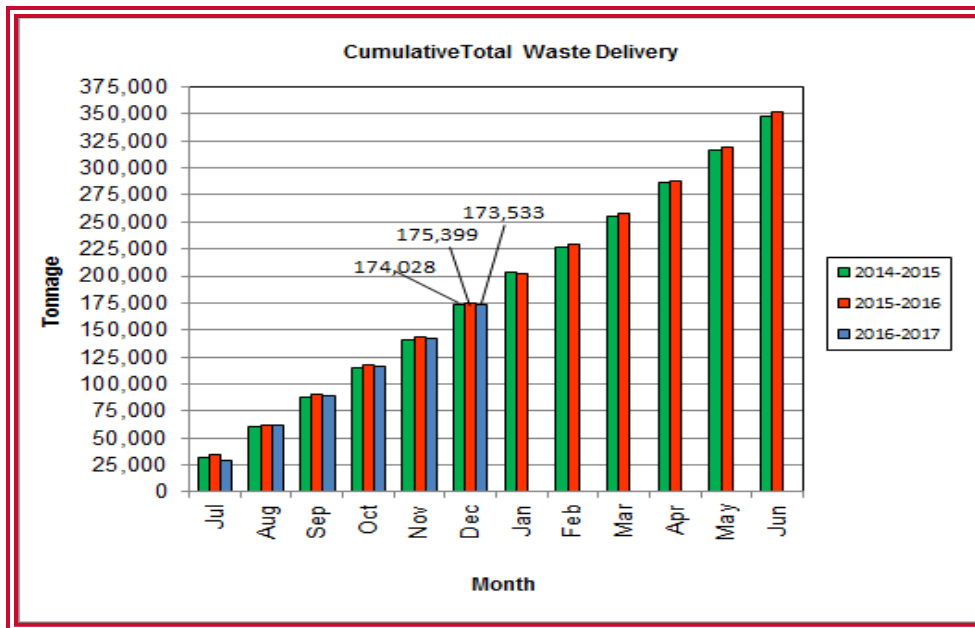
Please note that the total steam generation figures presented in Table 2 do not correlate with the annual steam production limit from the Facility Permit; such limits apply on a 12-month rolling average monthly basis, and not a fiscal year basis. It is also worth noting that the quantity of waste processed during Q2FY17 continues to be limited by the steam production permit restrictions (refer to Chart 5).

Table 3: Waste Delivery Classification

		<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Totals</u>	<u>% of Total</u>
FY13	Jurisdiction Waste	19,413	18,357	16,632	17,625	18,838	16,195	-	-	-	-	-	-	107,058	30.76%
	Spot Waste tons	10,516	11,326	10,610	10,317	9,330	9,558	-	-	-	-	-	-	61,656	17.72%
	City Waste	-	-	-	-	-	-	1,683 ⁽¹⁾	1,287	1,444	2,382	2,286	1,919	11,000	3.16%
	County Waste	-	-	-	-	-	-	2,442 ⁽¹⁾	2,100	2,372	3,381	3,932	3,309	17,536	5.04%
	Municipal Solid Waste	-	-	-	-	-	-	25,019 ⁽¹⁾	23,637	21,661	27,066	25,794	24,930	148,107	42.56%
	Supplemental Waste	151	11	80	25	234	405	363	365	76	403	281	271	2,665	0.77%
	MSW Totals	29,928	29,683	27,241	27,942	28,167	25,753	29,507	27,388	25,552	33,231	32,293	30,429	348,022	100.00%
		<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Totals</u>	<u>% of Total</u>
FY14	City Waste	2,065	1,693	1,702	1,924	1,566	1,780	1,529	1,231	1,556	2,256	2,203	1,883	21,389	6.11%
	County Waste	3,459	3,079	2,784	3,091	2,707	2,802	2,568	1,957	2,272	3,326	3,987	3,387	35,419	10.12%
	Municipal Solid Waste	26,167	23,604	22,034	23,354	21,879	25,531	23,869	22,523	23,198	25,414	27,206	24,812	289,590	82.75%
	Supplemental Waste	546	676	248	410	188	268	275	192	231	253	151	110	3,548	1.01%
	MSW Totals	32,237	29,053	26,768	28,779	26,340	30,380	28,241	25,903	27,256	31,249	33,546	30,193	349,946	100.00%
		<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Totals</u>	<u>% of Total</u>
FY15	City Waste	1,814	1,497	1,699	1,737	1,518	1,770	1,411	1,209	1,648	2,155	2,059	2,045	20,562	5.91%
	County Waste	3,297	2,868	2,973	3,095	2,508	2,852	2,358	1,833	2,411	3,269	3,652	3,572	34,687	9.96%
	Municipal Solid Waste	26,661	24,466	21,887	21,241	21,678	27,906	24,611	20,915	24,094	25,189	23,126	25,667	287,442	82.57%
	Supplemental Waste	141	275	329	521	764	529	389	351	272	613	531	698	5,413	1.55%
	MSW Totals	31,913	29,106	26,888	26,595	26,468	33,057	28,769	24,308	28,424	31,225	29,369	31,982	348,105	100.00%
		<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Totals</u>	<u>% of Total</u>
FY16	City Waste	1,960	1,563	1,723	1,645	1,685	1,872	1,147	1,619	1,811	2,024	1,950	2,220	21,219	6.03%
	County Waste	3,627	2,880	2,832	2,869	2,682	2,891	2,025	2,389	2,694	2,406	2,508	2,661	32,465	9.22%
	Municipal Solid Waste	27,933	22,999	22,552	22,850	20,679	26,138	22,632	22,781	22,935	24,388	26,561	27,355	289,801	82.32%
	Supplemental Waste	676	427	771	684	676	787	642	850	792	996	605	661	8,565	2.43%
	MSW Totals	34,196	27,869	27,878	28,047	25,722	31,687	26,446	27,639	28,232	29,814	31,623	32,896	352,049	100.00%
		<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>YTD Totals</u>	<u>YTD % of Total</u>
FY17	City Waste	1,678	1,836	1,668	1,722	1,817	1,708							10,428	6.01%
	County Waste	2,386	2,469	2,370	2,184	2,321	2,289							14,019	8.08%
	Municipal Solid Waste	24,862	26,976	22,760	22,110	21,598	25,996							144,301	83.16%
	Supplemental Waste	504	642	734	926	941	1,036							4,783	2.76%
	MSW Totals	29,430	31,922	27,532	26,941	26,677	31,030							173,533	100.00%

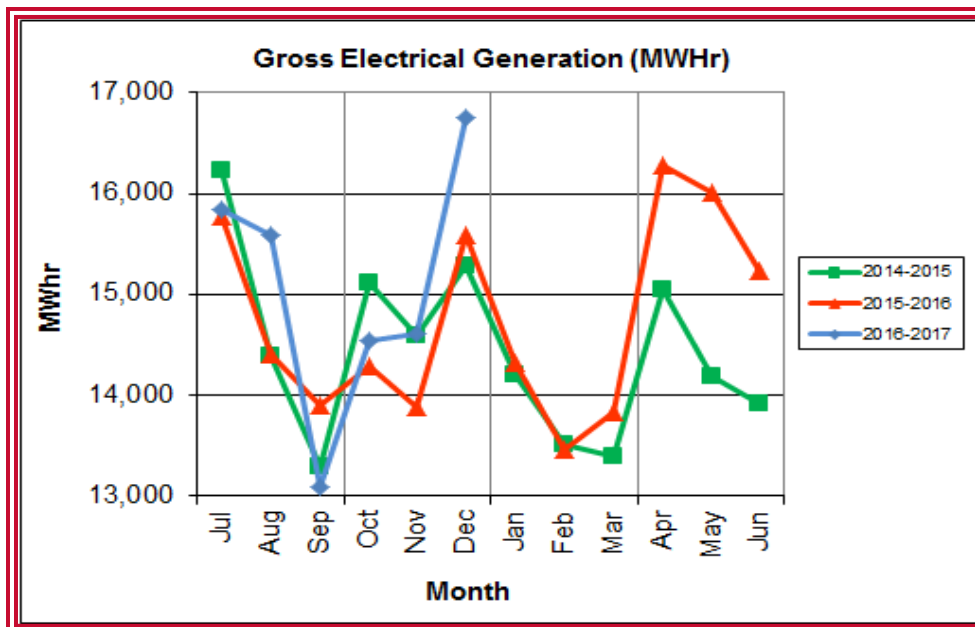
Note (1): Beginning January 2013, the method in which waste was classified was modified as compared to prior periods due to change in contractual obligations and plant ownership

Chart 8: Cumulative Total Waste Delivery



As depicted in Table 3 and Chart 8, for the quarter ending in December 2016; cumulative total waste delivery was 1.1% less compared to the same period in FY16.

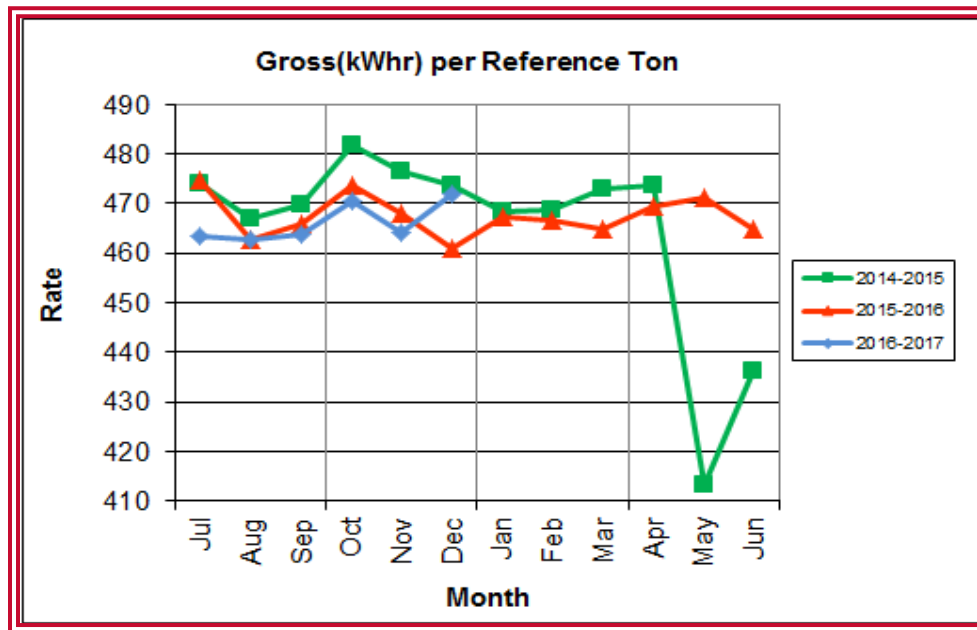
Chart 9: Gross Electrical Generation



During Q2FY17, the Facility generated 45,907 MWhrs (gross) of electricity compared to Q2FY16 generation of 43,757 MWhrs (gross), a 4.9% increase.

The increase in electricity generated (gross) in Q2FY17, is attributed to higher steam production, and less downtime (69.4 fewer hours) experienced by the turbine generators. Note that the sharp spikes depicted in Chart Nos. 10 through 14 for the months of May and June 2015 are a result of significant downtime (424.7 hours) experienced by Turbine Generator No. 1 to repair an exciter failure.

Chart 10: Gross Conversion Rate



As shown in Chart 10, the average gross electrical generation per reference ton of refuse processed during Q2FY17 was 469 kWhr, which is 0.3% higher than the corresponding quarter in FY16, and is attributable to less downtime experienced by the turbine generators during the quarter when compared to the corresponding quarter in FY16. Since this calculated value uses reference or normalized tonnages of waste, it should cancel the effect of MSW heating value (Btu content) variability.

Chart 11: Net Conversion Rate

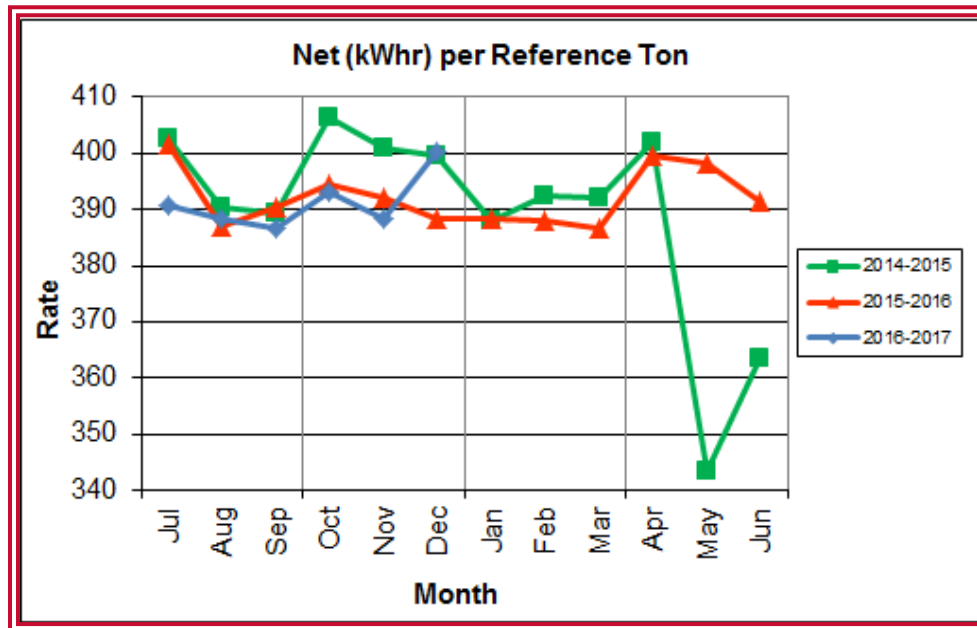


Chart 11 depicts the normalized net power (gross minus in-house usage) generation history. In Q2FY17, the average net electrical generation per reference ton was 394 kWhr, which is 0.6% higher than the corresponding quarter in FY16.

Chart 12: Net Conversion Rate

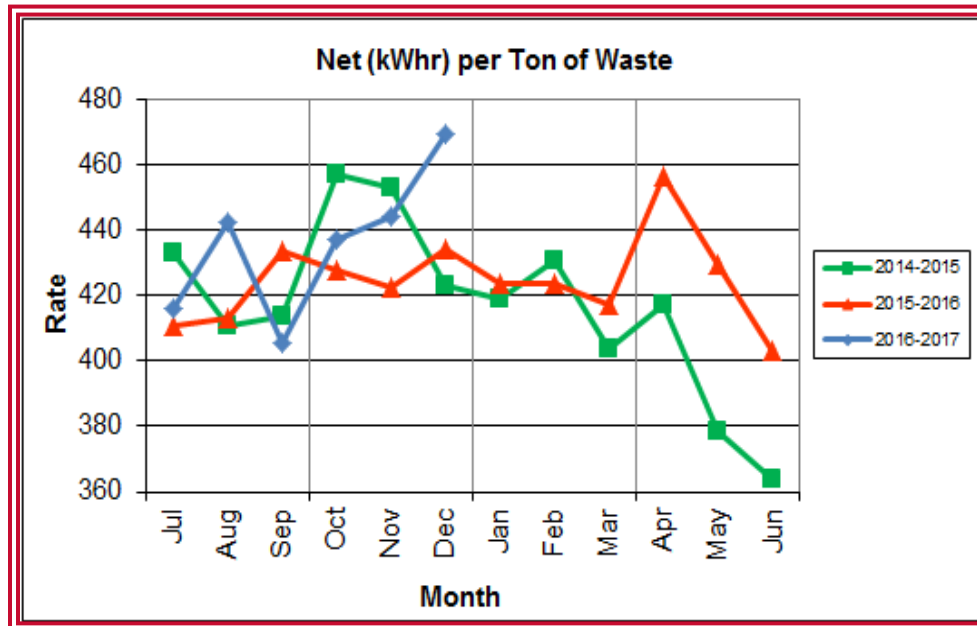
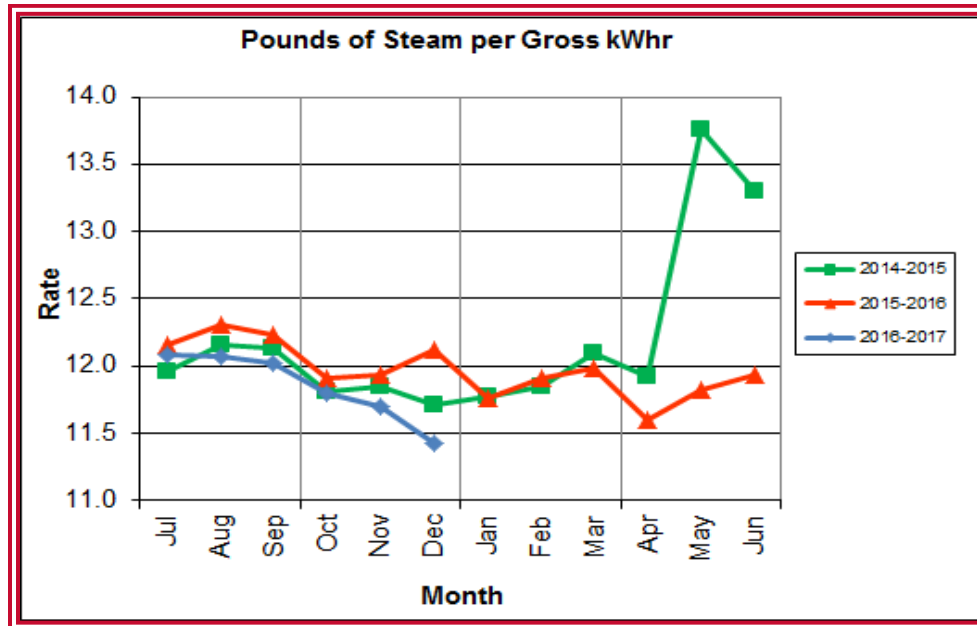


Chart 12 depicts the net power generation per processed ton. The net electrical generation per processed ton in Q2FY17 was 450 kWhr, which is 5.1% higher

than the corresponding quarter in FY16, and attributable to higher (4.5%) calculated waste heating value, and less downtime experienced by the turbine generators when compared to the corresponding quarter last fiscal year.

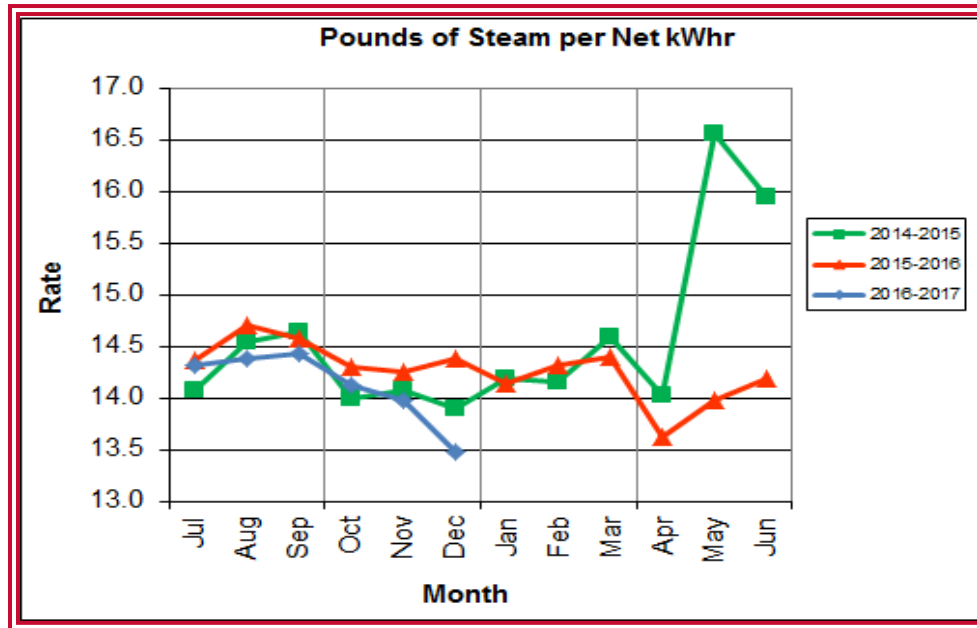
Chart 13: Gross Turbine Generator Conversion Rate



Charts 13 and 14 illustrate the quantities of steam required to generate one (1) 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 Q2FY17 the average lbs of steam consumed per gross kWhr generated was 11.6, which is 3.0% lower (improved) than the corresponding quarter Q2FY16. A factor that negatively impacts this metric is Turbine Generator No. 2 continues to operate with its Stage 9 blades removed from the rotor. CAAI reported that during the Turbine Generator No. 2 overhaul in November 2013, some cracking was observed on the Stage 9 blades of the rotor, and the blading in that row was removed as a precautionary measure. CAAI originally indicated that a new set of blades would be manufactured and installed during a Turbine Generator No. 2 Outage in 2016, but advised in May 2015, that the implementation of the replacement blades installation would be delayed, and did not provide a date for repair. The average lbs of steam consumed per net kWhr was 13.8, which is 3.3% lower (improved) than the

corresponding quarter in FY16. The average steam temperature during the quarter was 688.3° F, which is 1.5% higher than the average steam temperature of the corresponding quarter last fiscal year and 11.7° F lower than design temperature of 700° F.

Chart 14: Net Turbine Generator Conversion Rate



4.1 Utility and Reagent Consumptions

Table 4: Facility Utility and Reagent Consumptions

Utility	Units	Q2FY17 Total	Q2FY16 Total	Q2FY17"Per Processed Ton" Consumption	Q2FY16"Per Processed Ton" Consumption	FY17 YTD Total
Purchased Power	MW hr	5,712	5,560	0.07	0.06	11,310
Fuel Oil	Gal.	10,630	9,050	0.12	0.11	32,060
Boiler Make-up	Gal.	1,740,000	1,748,000	20.33	20.43	3,381,000
Cooling Tower Make-up	Gal.	36,611,403	35,132,772	427.69	410.56	81,630,429
Pebble Lime	Lbs.	1,290,000	1,396,000	15.07	16.31	2,544,000
Ammonia	Lbs.	180,000	167,000	2.10	1.95	350,000
Carbon	Lbs.	94,000	102,000	1.10	1.19	186,000
Dolomitic Lime	Lbs.	170,000	215,200	1.99	2.51	340,000

Fuel oil usage during the quarter represents approximately 0.19% of the total heat input to the boilers, which compares favorably with industry averages, and slightly higher than the percentage of heat input in Q2FY16 which was 0.16%. Fuel oil is used to stabilize combustion of wet fuel, as well as during start-up and shut-down of the boilers for maintenance. Boiler makeup water usage during the quarter represents 2.7% of steam flow, which is slightly lower than the boiler makeup in Q2FY16 which was 2.8%, and is acceptable. Pebble lime usage, at 1,290,000 lbs. is lower (7.6%) than the corresponding quarter last year, and the quarterly consumption rate of 15.1 lbs/ton is below historical levels (16-18 lbs/ton).

In comparing Q2FY17 to Q2FY16 on a per processed ton consumption basis:

- the purchased power consumption rate was 2.7% higher
- the total fuel oil consumption rate was 17.4% higher
- the boiler make-up water consumption rate was 0.5% lower
- the cooling tower make-up water consumption rate was 4.2% higher
- the total pebble lime consumption rate was 7.6% lower
- the ammonia consumption rate was 7.8% higher
- the carbon consumption rate was 7.9% lower
- the total dolomitic lime consumption rate was 21.0% lower

CAAI reported that the significant decrease in dolomitic lime usage is a result of lowering feed rate in recent months based on pH levels (average in-house pH of 9.8 during Q2FY17).

4.2 Safety & Environmental Training

The Facility experienced no OSHA recordable accidents during the quarter and has operated 103 days without an OSHA recordable accident. During the quarter, Safety and Environmental training was conducted with themes as follows:

October 2016

- Safety:
 - Guarding
 - Tipping Floor Safety
 - Mobile Equipment
 - Hand and Power Tools
- Environmental:
 - Electronics Processing
 - Vector Control
 - Universal Waste

November 2016

- Safety:
 - Reviewing the OSHA Globally Harmonized System (GHS) Label Training Video
 - Electrical Safety
 - GHS Shipping Labels
 - GHS Pictograms
 - Workplace Hazardous Materials Information System (WHMIS) 2015 Pictograms
 - WHMIS 2015 Shipping Labels
- Environmental:
 - Hazardous Materials and Storage

- Receiving Waste
- Screening Loads
- Handling Prohibited Waste

December 2016

- Safety:
 - Ergonomics and Stretch and Flex
 - Heat Stress and JOB Observations
- Environmental:
 - Root Cause Analysis
 - Excess NO_x and SO₂

5.0 Facility Maintenance

Throughout the quarter, significant routine and preventative maintenance was performed. HDR considers that the Facility is implementing an 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.

Beginning October 8, 2016 Boiler No. 1 experienced 129.8 hours of downtime for a scheduled maintenance. Some significant maintenance items completed during the outage are as follows:

- Change-out of nine (9) grate bars total on both runs
- Change-out of angular brake plates on the feed rams
- Repacking of the attemperator valve
- Replacement of four (4) sets of drain valves on the back of the boiler at various levels
- Installation of seven (7) new wear plates in the ash discharger
- Repair of multiple holes in the ash discharger and transition chute
- Replacement of the north side lower ash discharger door
- Change-out of the entire baghouse screw conveyor troughs on both sides for G123 and G124 Conveyors

- Change-out of all three (3) screws on the north side of the baghouse G124 conveyor and all three (3) bearings and coupling shafts and bolts
- Change-out of the tail end bearing on the south side baghouse screw conveyor and replacement of one of the covers
- Replacement of elements on G9B Sootblower Nos. 6, 7, and 8
- Removal and replacement of 43 superheater tube shields

Beginning November 5, 2016 Boiler No. 3 experienced 122.7 hours of downtime for a scheduled maintenance outage. Some significant maintenance items completed during the outage are as follows:

- Change-out of one (1) grate bar on run 2 side
- Change-out of the angular brake plates on the feed rams
- Replacement of the Sootblower upper root valve with a 900 lb. class valve
- Replacement of the Sootblower steam trap drain valves
- Re-plating of both sides of the ash discharger transition chute where the doors are
- Re-plating of the feed chute hopper door and installation of a 3-foot piece of steel on the top of the feed chute that was missing.
- Replacement of elements on G9B Sootblower No. 12
- Change-out of three (3) zone damper hydraulic cylinders
- Removal and replacement of 14 superheater tube shields
- RE-plating of the bottom of the superheater hopper where it ties into the double dump valve
- Repair of multiple holes in the baghouse hoppers
- Repair of several holes in the ID Fan outlet fan box
- Repair of several holes in the inlet duct to the baghouse

In addition to the scheduled maintenance, CAAI reports that 1,050 preventative maintenance actions were completed during the quarter.

5.1 Availability

Facility availabilities for Q2FY17 are shown in Table 5. According to CAAI reports, the average unit availabilities for Boiler Nos. 1, 2, and 3 for Q2FY17 were 97.9%, 99.6%, and 94.3%, respectively. The three-boiler average availability during the quarter was 97.3%, which is excellent.

During Q2FY17, the average availability for Turbine Generator Nos. 1 and 2 was 100.0%. The two-turbine generator average availability during the quarter was 100.0%, which is excellent.

Table 5: Quarterly Facility Unit Availabilities

Availability	Q1FY17 Average	Q2FY17 Average	FY17 YTD Average
Boiler No. 1	97.7%	97.9%	97.8%
Boiler No. 2	94.6%	99.6%	97.1%
Boiler No. 3	98.7%	94.3%	96.5%
Avg.	97.0%	97.3%	97.1%
Turbine No. 1	100.0%	100.0%	100.0%
Turbine No. 2	100.0%	100.0%	100.0%
Avg.	100.0%	100.0%	100.0%

5.2 Downtime Summary

Table 6: Boiler Downtime – Q2FY17

Boiler Number	Outage Begin Date	Outage End Date	Hours Unavailable	Downtime Classification	Reason Unavailable
1	10/8/16	10/14/16	129.8	Scheduled	Scheduled Fall Major Outage
3	10/19/16	10/20/16	48.0	Standby	Preventative measure taken to avoid exceeding 350,000 ton rolling 12-month process limit
2	10/30/16	10/31/16	9.0	Unscheduled	Induced Draft (ID) Fan Coupling Failure
3	11/5/16	11/10/16	122.7	Scheduled	Scheduled Fall Major Outage
2	11/9/16	11/10/16	36.0	Standby	Preventative measure taken to avoid exceeding 350,000 ton rolling 12-month process limit and Dominion work at sub-station
Total Unscheduled Downtime			9.0 Hours		
Total Scheduled Downtime			252.5 Hours		
Total Standby Downtime			84.0 Hours		
Total Downtime			345.5 Hours		

Table 7: Turbine Generator Downtime – Q2FY17

Turbine Generator Number	Outage Begin Date	Outage End Date	Hours Unavailable	Downtime Classification	Reason Unavailable
2	11/6/16	11/10/16	103.7	Standby	Preventative measure taken to avoid exceeding 350,000 ton rolling 12-month process limit and Dominion work at sub-station
Total Unscheduled Downtime			0.0 Hours		
Total Scheduled Downtime			0.0 Hours		
Total Standby Downtime			103.7 Hours		
Total Downtime			103.7 Hours		

5.3 Facility Housekeeping

CAAI is performing Facility housekeeping and maintaining plant cleanliness in accordance with acceptable industry practices. A site inspection was conducted in November 2016. At the time of the inspection, new deficiencies were recorded and prior deficiencies were given a status update. Photos of interest from the inspection are depicted in Appendix B. The Facility housekeeping ratings from the November 2016 inspection are presented in Table 8.

Table 8: Facility Housekeeping Ratings – November 2016

Facility Area	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	√		

6.0 Environmental

The 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 Q2FY17 are summarized in Appendix A. No permit deviations were reported by the Facility during Q2FY17.

On August 8, 2014, CAAI sent a letter to the Virginia Department of Environmental Quality (VADEQ) requesting relief from the steam permit limit requirements in the Facility's Title V and PSD permits. These requested changes relate to the permit values established for the calculated steam-to-waste ratio, which has resulted in a reduction of MSW throughput. In recent discussions, CAAI indicated that it is re-evaluating options to the proposed permit changes, and will provide further updates on this issue.

6.1 Nitrogen Oxide Emissions

During Q2FY17, the monthly emission concentrations of nitrogen oxides (NO_x) averaged 166.0 ppmdv, 160.0 ppmdv and 163.3 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.

6.2 Sulfur Dioxide Emissions

During Q2FY17 the monthly emission concentration of stack sulfur dioxide (SO₂) averaged 2.0 ppmdv, 1.3 ppmdv, and 1.0 ppmdv for Boiler Nos. 1, 2, and 3, respectively. All of these stack SO₂ concentrations are significantly below the 40 CFR Subpart Cb requirement of 29 ppmdv @ 7% O₂.

6.3 Carbon Monoxide Emissions

During Q2FY17, the average CO emission concentrations on Boiler Nos. 1, 2, and 3 were 36.7 ppmdv, 38.0 ppmdv, and 35.3 ppmdv, respectively, and all are

well within permit limits (100 ppm_{dv}, hourly average). However, as reported by HDR during the May 2016 FMG Meeting, and continuing through Q2FY17, CO averages have been trending higher over the past year of operations on all three boilers, and CAAI has been requested to investigate and mitigate this uptrend. While not a permit issue, it is indicative of poorer boiler performance and combustion efficiency.

6.4 Opacity

During Q2FY17, the average opacity for Boiler Nos. 1, 2, and 3 was 0.9%, 0.4%, and 0.0% respectively. All of these averages are significantly below the 10% (6-minute) average permit limit.

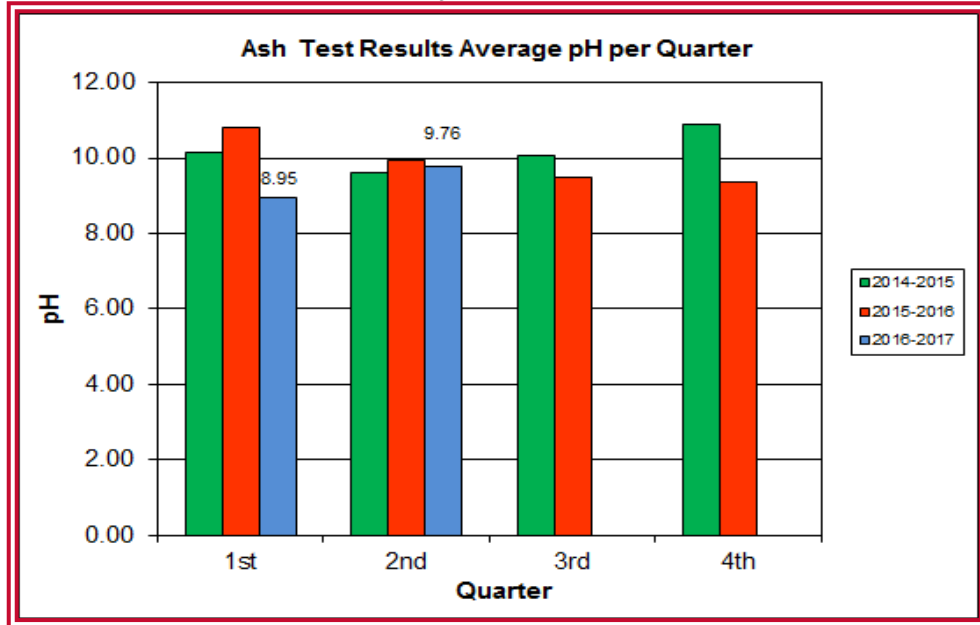
6.5 Daily Emissions Data

Appendix A, Tables 9, 10, and 11 tabulate the monthly average, maximum, and minimum emissions data for each unit during Q2FY17. 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 1 to 9 lbs per ton each month. Ash Toxicity (TCLP) tests were not performed during Q1FY16. CAAI samples ash monthly in-house and documents pH reading to adjust dolomitic lime feed rate. The results for the ash pH tests are found below in Chart 15 where each quarter is represented by the average of the respective monthly readings. During Q2FY17, the average ash pH for in-house tests was 9.8.

Chart 15: Quarterly Ash Test Results



APPENDIX A FACILITY CEMS DATA

Table 9: 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.		SteamFI	SO ₂ ec	SO ₂ sc	COsc	NO _x sc	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-16	AVG	83.1	44.0	2.0	31.0	175.0	0.0	300.0	15.4	3.2
	Max	89.6	66.0	6.0	44.0	185.0	0.7	305.0	15.8	3.8
	Min	74.6	26.0	0.0	19.0	164.0	0.0	295.0	15.3	2.9
Nov-16	AVG	82.7	38.0	2.0	35.0	161.0	1.4	300.0	15.8	3.0
	Max	85.5	55.0	4.0	46.0	171.0	1.6	302.0	16.2	3.2
	Min	79.2	24.0	0.0	25.0	159.0	0.9	298.0	15.6	2.9
Dec-16	AVG	83.2	23.0	2.0	44.0	162.0	1.4	297.0	16.1	3.1
	Max	85.8	101.0	20.0	55.0	191.0	2.0	300.0	16.2	4.1
	Min	80.2	6.0	0.0	34.0	158.0	1.0	285.0	15.8	3.0
Quarter Average		83.0	0.0	2.0	36.7	166.0	0.9	299.0	15.8	3.1
Quarter Max Value		89.6	101.0	20.0	55.0	191.0	2.0	305.0	16.2	4.1
Quarter Min Value		74.6	6.0	0.0	19.0	158.0	0.0	285.0	15.3	2.9
Limits:		98	NA	29	100	205	10	333	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 (i.e., 4-hour block averages for CO) do not correlate with the 24 hour average data reported above.

Table 10: 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.		SteamFI	SO ₂ ec	SO ₂ sc	COsc	NO _x sc	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-16	AVG	83.2	44.0	1.0	33.0	161.0	0.0	300.0	15.3	3.1
	Max	88.6	95.0	5.0	47.0	178.0	0.0	302.0	15.5	3.7
	Min	73.4	17.0	0.0	20.0	156.0	0.0	296.0	15.2	2.7
Nov-16	AVG	85.1	36.0	1.0	38.0	158.0	1.9	300.0	15.8	3.2
	Max	88.4	48.0	5.0	54.0	161.0	2.4	301.0	17.0	3.5
	Min	81.2	22.0	0.0	29.0	156.0	0.6	298.0	15.4	2.7
Dec-16	AVG	85.6	29.0	2.0	43.0	161.0	0.8	299.0	16.0	3.2
	Max	88.7	106.0	17.0	57.0	191.0	1.5	300.0	17.5	4.3
	Min	82.2	16.0	0.0	31.0	157.0	0.4	299.0	15.2	2.8
Quarter Average		84.6	36.3	1.3	38.0	160.0	0.9	299.7	15.7	3.2
Quarter Max Value		88.7	106.0	17.0	57.0	191.0	2.4	302.0	17.5	4.3
Quarter Min Value		73.4	16.0	0.0	20.0	156.0	0.0	296.0	15.2	2.7
Limits:		96	NA	29	100	205	10	330	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 (i.e., 4-hour block averages for CO) do not correlate with the 24 hour average data reported above.

Table 11: 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 ₂ ec	SO ₂ sc	COsc	NO _x sc	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-16	AVG	85.0	34.0	1.0	33.0	162.0	0.0	295.0	15.4	2.9
	Max	90.6	68.0	4.0	47.0	169.0	0.0	301.0	15.9	3.5
	Min	75.0	17.0	0.0	23.0	160.0	0.0	266.0	15.1	2.3
Nov-16	AVG	88.7	44.0	1.0	35.0	167.0	0.0	298.0	15.7	3.4
	Max	91.7	86.0	3.0	48.0	176.0	0.0	301.0	15.8	3.9
	Min	84.7	24.0	0.0	27.0	154.0	0.0	296.0	15.7	3.0
Dec-16	AVG	88.6	34.0	1.0	38.0	161.0	0.0	298.0	16.1	3.4
	Max	91.4	92.0	10.0	47.0	185.0	0.0	299.0	17.5	4.0
	Min	85.4	11.0	0.0	25.0	157.0	0.0	297.0	15.7	3.1
Quarter Average		87.4	37.3	1.0	35.3	163.3	0.0	297.0	15.7	3.2
Quarter Max Value		91.7	92.0	10.0	48.0	185.0	0.0	301.0	17.5	4.0
Quarter Min Value		75.0	11.0	0.0	23.0	154.0	0.0	266.0	15.1	2.3
Limits:		98	NA	29	100	205	10	327	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 (i.e., 4-hour block averages for CO) do not correlate with the 24 hour average data reported above.

APPENDIX B

SITE PHOTOS – NOVEMBER 2016



Figure 1: Pavement spider-cracking at Tipping Floor Entrance – New Deficiency



Figure 2: Concrete slab damaged that Citizen's Drop-off Roll-off is on – New Deficiency



Figure 3: Pothole where Tipping Floor Exit Road enters Eisenhower Avenue – New Deficiency



Figure 4: Multiple Cooling Tower Access Stairs Split – New Deficiency



Figure 5: Corrosion on Scale House – New Deficiency

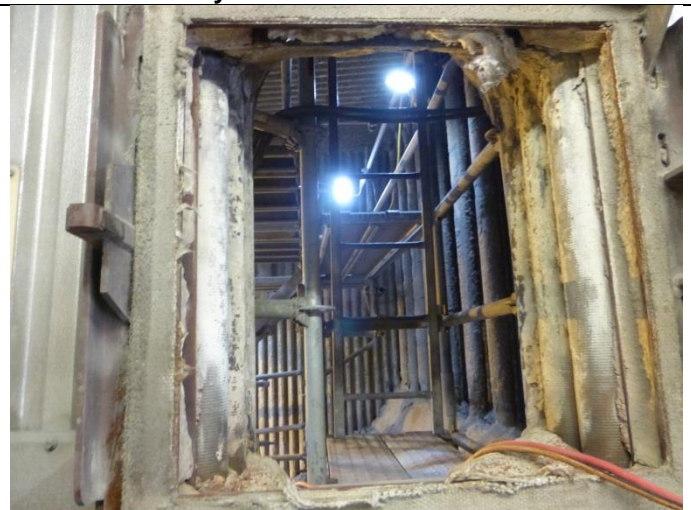


Figure 6: Boiler No. 3 Outage in Progress – Scaffolding Inside Boiler



Figure 7: Boiler No. 3 Outage in Progress – Ash Discharger cleaned out for maintenance



Figure 8: Boiler No. 3 Outage in Progress – Maintenance on Superheater Hopper

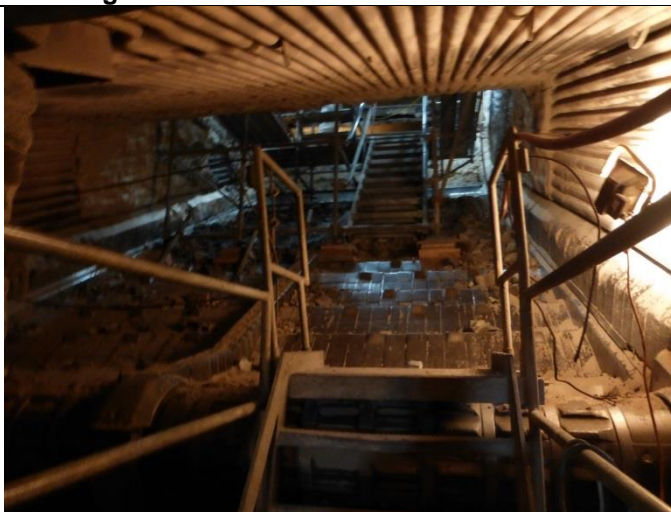


Figure 9: Boiler No. 3 Outage in Progress – Boiler grates and scaffolding



Figure 10: Boiler No. 3 Outage in Progress – Superheater tubes and tube shields



Figure 11: Firing Aisle



Figure 12: External view of repairs to East Tipping Floor Wall – Completion of Deficiency Item No. 4



Figure 13: White Goods Roll-Off



Figure 14: Citizen's Drop Roll-off



Figure 15: Overhead view Ferrous Magnet – Note extension of vibrating pan



Figure 16: General Facility View – Photo from east on Eisenhower Avenue



Figure 17: General Facility View – Front of Facility



Figure 18: General Facility View – Photo from west on Eisenhower Avenue



Figure 19: APC Area and Cooling Towers



Figure 20: General View of Tipping floor from Entrance



Figure 21: New column and louvers on east wall of Tipping Floor



Figure 22: Refuse pit – Photo from north end of Charging Floor



Figure 23: Ash Trailer Canopy



Figure 24: Crane Pulpit