

CommonWealth

Resource Management Corporation

January 12, 2015

The Municipal Review Committee
Greg Louder, Executive Director
395 State Street
Ellsworth, Maine 04605

RE: Review of the Tip Fee for the First Quarter of 2015:
Compliance with Performance Standards in 2014

Dear Members of the MRC:

In January 2015, the Municipal Review Committee (the MRC) received from the Penobscot Energy Recovery Company (PERC) information, calculations and supporting data intended to demonstrate whether in 2014 the Facility operated in compliance with the Performance Standards set forth in Schedule F of the Second Amended, Restated and Extended Waste Disposal Agreement (the Agreement) and, consequently, whether adjustment of the tipping fee is required under Schedule C, Section A(4), of the Agreement. PERC supplied a summary cover letter, supported by Exhibits A through D, which contain data to demonstrate the Facility's performance in 2014.

CommonWealth Resource Management Corporation (CommonWealth) has reviewed the information supplied by PERC. The following table compares the actual performance of the PERC facility in 2014 to the levels of performance required for compliance with the Performance Standards as defined in Schedule F of the Agreement:

Applicable Standard	2014 Actual Performance	Performance Standard
Residue Moisture	27.0 %	<40.0%
Residue Combustible Content	4.3 %	<9.0%
Residue Truck Loading	30.54 tons	>20.0 tons
FEPR Truck Loading	28.91 tons	>20.0 tons
Ferrous Quality	387 Btu/lb based on 5.9 % by weight	<720 Btu/lb based on <10% by weight
Glass and Grit Quantity	18.7 %	<26 %
Glass and Grit Quality	Not applicable (the value of 2,788 Btu/lb would have complied)	<3,600 Btu/lb if not in compliance with Glass and Grit Quantity Standard

For the Residue Moisture Standard, reduced moisture content of ash indicates that less water is being landfilled with the ash, thus reducing disposal costs for the Charter Municipalities and for PERC. For 2014, the tests show that the moisture content of the ash ranged between 20 percent and 34 percent, averaging 27.0 percent compared to the following values in past years:

2014	27.0 percent
2013	23.4 percent
2012	24.4 percent
2011	25.0 percent
2010	24.4 percent
2009	24.4 percent

For the Residue Combustible Content Standard, reducing the LOI of ash indicates improved combustion conditions and that less uncombusted waste is being landfilled with the combustion ash, thus reducing the disposal costs to the Charter Municipalities and PERC. For 2014, the tests show that the average ash loss on ignition (LOI) ranged between 2.4 percent and 5.4 percent, averaging 4.3 percent, compared to the following values in past years:

2014	4.3 percent
2013	3.8 percent
2012	3.3 percent
2011	6.1 percent
2010	4.5 percent
2009	1.7 percent

Average performance regarding the Residue Truck Loading Standard and the FEPR Loading Standard is consistent with past years as shown:

	Average tons per load of Residue	Average tons per load of FEPR
2014	30.54 tons	28.91 tons
2013	30.46 tons	30.21 tons
2012	30.40 tons	28.06 tons
2011	29.87 tons	27.76 tons
2010	29.77 tons	27.73 tons
2009	29.69 tons	28.06 tons

The Ferrous Quality Standard measures the extent to which combustible materials are diverted from fuel production and contaminate the ferrous stream. Results for 2014 compare to prior years as follows:

	Gross Calorific Value in Btu/lb	Free combustibles by weight
2014	387 Btu/lb	5.9 percent
2013	617 Btu/lb	8.4 percent
2012	816 Btu/lb	9.7 percent
2011	653 Btu/lb	9.5 percent
2010	693 Btu/lb	10.4 percent
2009	876 Btu/lb	11.7 percent

The Glass and Grit Quantity Standard measures the share of the incoming waste that is removed for landfill disposal prior to combustion. PERC has produced glass and grit at the following rates:

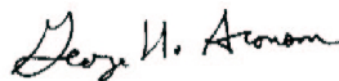
2014	18.7 percent
2013	17.8 percent
2012	18.2 percent
2011	19.4 percent
2010	20.2 percent
2009	18.1 percent

Under the Agreement, the glass and grit stream is presumed to contain an acceptable level of combustible contaminants if the quantity of glass and grit complies with the Glass and Grit Quantity Standard. In 2014, because PERC complied with the Glass and Grit Quantity Standard, the Glass and Grit Quality Standard is not applicable.

Commonwealth agrees that the no tip fee adjustment is required for failure of the Facility to comply with Performance Standards in 2014.

If you have any further questions, please feel free to contact me.

Sincerely,



George H. Aronson
Principal



Penobscot Energy Recovery Company

P.O. Box 160 • 29 Industrial Way
Orrington, Maine 04474
(207) 825 - 4566

ESOCO ORRINGTON, LLC.
Plant Operator

January 7, 2015

Municipal Review Committee
395 State Street
Ellsworth, Maine 04605

Subject: 2014 Performance Standards

Committee Members:

Attached for your review are Exhibits A through D, which should be sufficient to duplicate and verify PERC's compliance with Plant Performance Standards.

Compliance with Plant Performance Standards

1. **The Residue Moisture Standard** - The moisture in the Residue as shipped shall not exceed forty percent (40%) by weight on an annual basis. (See Exhibit A)
 - From the results of the quarterly ash analysis done by Northeast Lab., the mean percent moisture in the ash residue was 27.0%.
2. **The Residue Combustible Content Standard** – The percent weight of the unburned combustibles in the Residue as measured by the percent LOI shall not exceed nine percent (9%) by weight dry. (See Exhibit A)
 - From the results of the quarterly ash analysis done by Northeast Lab., the mean percent LOI of the ash residue was 4.3%.
3. **The Residue Truck Loading Standard** – The annual average net weight of shipments of Residue (ash) shall not be less than twenty (20) tons per truck. (See Exhibit B)
 - Based on the monthly disposal invoicing from the disposal facilities, the annual average net shipping weight per residue trailer was 30.54 tons.
4. **FEPR Truck Loading Standard** – The annual average net weight of shipments of FEPR (including glass & grit, and non-processable waste) shall not be less than twenty (20) tons per truck. (See Exhibit B)
 - Based on the monthly disposal invoicing, the annual average net shipping weight per FEPR trailer was 28.91 tons.
5. **The Ferrous Quality Standard** – The higher heating value (HHV) of the recovered ferrous materials as measured by the ratio of the BTU's of free combustibles to the total weight of the recovered ferrous material shall not exceed 720 BTU/lb on the basis of ten percent (10%) by weight free combustibles. (See Exhibit C)
 - From the results of the monthly ferrous sampling, the percentage by weight of free combustibles was 5.9% and the HHV was 387 BTU/lb.
6. **The Glass & Grit Quantity Standard** – The weight of glass & grit shall not exceed twenty-six percent (26%) of the weight of all Acceptable Waste accepted at the Facility (including non-processable waste) on an annual basis. (See Exhibit D)
 - From the monthly production reports, the annual average percent by weight of glass & grit was 18.7%.

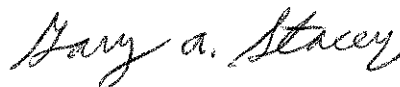
7. **The Glass & Grit Quality Standard** - The HHV of the glass & grit shall not exceed 3,600 BTU/lb on an annual average basis. This standard shall not apply unless the Facility has not complied with the Glass & Grit Quantity Standard above. (See Exhibit C)

➤ THIS STANDARD DOES NOT APPLY. However, from the results of the monthly glass & grit sampling, the HHV of the glass & grit, 2,788 BTU/lb.

The information supplied herewith, along with the monthly Plant Performance Reports, should be sufficient to duplicate and verify the Performance Standards calculations.

Please feel free to call me should you have any questions.

Very truly yours,
Penobscot Energy Recovery Company
By: ESOCO Orrington, LLC, As Agent



By: Gary A. Stacey
Plant Controller

Attachments:

Cc: G. Aronson, CWRM
John Noer, SET PERC Investment, LLC
K. Nordby, PERC Holdings, LLC
P. Prata, PERC
M. Mains, PERC

Exhibit A

2014 WEEKLY ASH DATA

DATE	TYPE	NEL % SLD	NEL % LOI	PERC pH
2/10	C	68.0	2.90	12.3
4/15	C	66.0	5.00	11.9
6/17	C	80.0	4.80	12.0
8/7	C	80.0	3.40	10.8
10/8	C	71.0	5.40	12.3
N		5	5	5
MEAN		73.0	4.3	11.9
VAR		44.0	1.2	0.4
STD DEV		6.6	1.1	0.6

Exhibit B

	Tons Shipped	# Loads	Ave. Wt. Per Load
Ash	53,986.86	1768	30.54 tons

	Tons Shipped	# Loads	Ave. Wt. Per Load
G&G	57,827.62	2,000	
N/P's	-	-	
	<u>57,827.62</u>	<u>2,000</u>	28.91 tons

2014	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	YTD TOTALS
ASH													
SHIPMENTS TO OLD TOWN	146	133	105	193	165	143	153	146	149	142	144	149	1,768.00
WEIGHT SHIPPED	4,425.60	4,042.44	3,227.49	5,917.81	5,032.03	4,238.08	4,607.57	4,431.90	4,604.06	4,374.48	4,446.69	4,638.71	53,986.86
TOTAL SHIPMENTS	146	133	105	193	165	143	153	146	149	142	144	149	1,768.00
TOTAL WEIGHT SHIPPED	4,425.60	4,042.44	3,227.49	5,917.81	5,032.03	4,238.08	4,607.57	4,431.90	4,604.06	4,374.48	4,446.69	4,638.71	53,986.86
COST PER TON	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55	50.55
ASH PRODUCED	4,442.60	4,051.44	3,193.49	5,953.81	4,996.00	4,276.10	4,569.60	4,439.90	4,596.06	4,374.50	4,453.70	4,656.70	54,003.90
CURRENT MONTH ACCRUAL=	224,573.43	204,800.29	161,430.92	300,965.10	252,547.80	216,156.86	230,993.28	224,436.95	232,330.83	221,130.98	225,134.54	235,396.19	2,729,897.17
QUARTERLY TOTALS			\$590,804.64			\$769,669.76			\$687,761.06			\$681,661.71	
G&G													
SHIPMENTS TO OLD TOWN	177	150	119	109	173	161	173	192	147	183	190	226	2000
WEIGHT SHIPPED	5,038.71	4,319.42	3,426.67	3,184.86	4,969.42	4,614.47	5,003.66	5,564.02	4,280.28	5,367.49	5,503.76	6,554.86	57,827.62
TOTAL SHIPMENTS	177	150	119	109	173	161	173	192	147	183	190	226	2,000.00
TOTAL WEIGHT SHIPPED	5,038.71	4,319.42	3,426.67	3,184.86	4,969.42	4,614.47	5,003.66	5,564.02	4,280.28	5,367.49	5,503.76	6,554.86	57,827.62
COST PER TON	48.13	48.13	48.13	48.13	48.13	48.13	48.13	48.13	48.13	48.13	48.13	48.13	48.13
G & G PRODUCED	5,038.71	4,319.42	3,426.67	3,184.86	4,969.40	4,614.50	5,053.70	5,514.00	4,280.28	5,367.50	5,560.80	6,497.90	57,827.74
CURRENT MONTH ACCRUAL=	242,513.11	207,893.68	164,925.63	153,287.31	239,177.22	222,095.89	243,234.58	265,388.82	206,009.88	258,337.78	267,641.30	312,743.93	2,783,249.13
QUARTERLY TOTALS			\$615,332.42			\$614,560.42			\$714,633.28			\$838,723.01	
N/P (LANDFILL)													
SHIPMENTS TO OLD TOWN	0	0	0	0	0	0	0	0	0	0	0	0	0
WEIGHT SHIPPED	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00
TOTAL SHIPMENTS	0	0	0	0	0	0	0	0	0	0	0	0	0.00
TOTAL WEIGHT SHIPPED	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00
COST PER TON	66.33	66.33	66.33	66.33	66.33	66.33	66.33	66.33	66.33	66.33	66.33	66.33	66.33
N/P PRODUCED	0	0	0	0	0	0	0	0	0	0	0	0	0.00
CURRENT MONTH ACCRUAL=	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00
QUARTERLY TOTALS			\$0.00			\$0.00			\$0.00			\$0.00	
N/P (GRINDING)													
<i>S. J. CLISHAM - GRINDING</i>													
TOTAL TONS GROUND	431.95	1089.90	484.43	1198.74	523.36	1378.19	1033.53	767.87	480.70	1383.94	619.33	1294.24	10,686.18
LESS BEGINNING INVENTORY	(225.99)	(400.00)	(100.00)	(275.00)	0.00	(525.00)	(125)	(50.00)	125	(300)	(75)	(320)	
PLUS ENDING INVENTORY	400.00	100.00	275.00	0.00	525.00	125.00	50.00	(125.00)	300	75	320	50	
CORRECTION OF ENDING INV 9-2014										300			
TOTAL TONS PRODUCED	605.96	789.90	659.43	923.74	1048.36	978.19	958.53	592.87	905.70	1158.94	864.33	1024.24	10,510.19
COST PER TON TO GRIND	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00
CURRENT MONTH ACCRUAL=	29,086.08	37,915.20	31,652.64	44,339.52	50,321.28	46,953.12	46,009.44	28,457.76	43,473.80	55,629.12	41,487.84	49,163.52	504,489.12
QUARTERLY TOTALS			\$98,653.92			\$141,613.92			\$117,940.80			\$148,280.48	
TOTAL RESIDUE ACCRUAL	\$496,172.62	\$450,609.17	\$358,009.19	\$498,591.93	\$542,046.30	\$485,205.87	\$520,237.30	\$518,283.53	\$481,814.31	\$535,097.88	\$534,263.68	\$597,303.64	6,017,635.42

Exhibit B-1

Exhibit C

MRC PERFORMANCE STANDARDS SUMMARY 2014

FFC TEST DATA 2014							FERROUS TEST DATA INTERPRETATION 2014						
Date	ID	H2O (%)	Ash (%)		GCV (BTU/lb)			Wt (lb)		Wt (%)		GCV (BTU/lb)	
			Rec'd	Dry	Rec'd	Dry	Total	Ferrous	FCC	FCC	Rec'd	Dry	
2/13/2014	FFC14-1A	15.5	11.4	13.5	7546.1	8950.5	16.13	15.25	0.88	5.4	409	486	
2/13/2014	FFC14-1B	19.5	7.7	9.6	7131.4	8894.6	15.50	14.63	0.88	5.6	403	502	
4/17/2014	FFC14-2A	41.2	8.2	13.9	5060.0	8610.0	15.50	14.50	1.00	6.5	326	555	
4/17/2014	FFC14-2B	29.3	14.3	21.5	4676.3	7014.4	15.25	14.75	0.50	3.3	153	230	
6/18/2014	FFC14-3A	30.8	19.3	27.9	5640	8150	16.63	15.44	1.19	7.1	403	582	
6/18/2014	FFC14-3B	35.0	4.8	7.4	8680	13350	17.13	16.38	0.75	4.4	380	585	
8/14/2014	FFC14-4A	31.4	4.9	7.1	8010	11680	16.06	14.88	1.19	7.4	592	864	
8/14/2014	FFC14-4B	26.6	9.3	12.7	7360	10030	17.19	16.58	0.60	3.5	259	353	
10/29/2014	FFC14-5A	19.3	11.9	14.7	9150	11340	16.25	15.31	0.94	5.8	528	654	
10/29/2014	FFC14-5B	26.5	8.3	11.3	7640	10390	17.50	16.25	1.25	7.1	546	742	
12/10/2014	FFC14-6A	48.0	6.0	11.6	4480	8620	16.44	15.31	1.13	6.8	307	590	
12/10/2014	FFC14-6B	52.1	5.6	11.7	4680	9770	15.38	14.25	1.13	7.3	342	715	

STATS

	FERROUS	12	12	12	12	12	12	12	12	12	12	
n		12	12	12	12	12	12	12	12	12	12	12
MEAN		31.3	9.3	13.6	6671	9733	16.24	15.29	0.95	5.9	387	571
LIMIT		40.0			9400					10.0		940
VAR		127.7	18.7	34.5	2797054	3062638	0.57	0.58	0.06	2.2	15578	29038
STD DEV		11.3	4.3	5.9	1672	1750	0.76	0.76	0.24	1.5	125	170
MIN		15.5	4.81	7.13	4480	7014	15.25	14.25	0.50	3.3	153	230
MAX		52.1	19.3	27.9	9150	13350	17.50	16.58	1.25	7.4	592	864

MRC PERFORMANCE STANDARDS SUMMARY 2014

RDF TEST DATA 2014							G&G TEST DATA 2014					
Date	ID	H2O (%)	Ash (%)		GCV (BTU/lb)		ID	H2O (%)	Ash (%)		GCV (BTU/lb)	
			Rec'd	Dry	Rec'd	Dry			Rec'd	Dry	Rec'd	Dry
2/13/2014	RDF14-1A	36.2	8.55	13.4	5890	9230	GG14-1A	44.6	22.2	40.1	2950	5320
2/13/2014	RDF14-1B	31.7	15.0	22.1	5553	8228	GG14-1B	41.4	27.3	50.1	2742.1	5020
4/17/2014	RDF14-2A	42.4	9.2	17.7	4204	8054	GG14-2A	27.3	38.9	62.1	1984	3162
4/17/2014	RDF14-2B	48.8	11.9	23.2	4260	8320	GG14-2B	27.3	43.7	63.8	1866	2726
6/18/2014	RDF14-3A	51.6	5.7	11.6	3613	7803	GG14-3A	37.2	34.7	57.7	2422	4021
6/18/2014	RDF14-3B	36.0	11.1	17.7	4675	7461	GG14-3B	36.0	34.8	57.8	2429	4045
8/14/2014	RDF14-4A	35.7	7.8	12.1	5950	9250	GG14-4A	36.5	29.2	49.0	3213	5400
8/14/2014	RDF14-4B	31.2	10.3	16.1	4624	7250	GG14-4B	39.0	29.1	49.7	3096	5279
10/29/2014	RDF14-5A	37.0	7.8	12.3	5350	8490	GG14-5A	36.9	29.6	50.3	2382	4046
10/29/2014	RDF14-5B	28.8	5.9	8.3	6490	9120	GG14-5B	38.5	24.2	42.4	2805	4900
12/10/2014	RDF14-6A	38.9	4.2	6.9	5650	9250	GG14-6A	44.7	17.2	31.1	3740	6760
12/10/2014	RDF14-6B	42.9	7.2	12.6	4700	8230	GG14-6B	48.3	11.9	23.0	3830	7410

STATS

	RDF	12	12	12	12	12	GLASS&GRIT	12	12	12	12	12		
n		12	12	12	12	12		12	12	12	12	12	12	12
MEAN		38.4	8.7	14.5	5080	8390			38.1	28.6	48.1	2788	4841	
LIMIT									40.0			2088		
VAR		48.0	8.9	25.1	739056	491318			40.2	80.2	150.8	383664	1843988	
STD DEV		6.9	3.0	5.0	860	701			6.3	9.0	12.3	619	1358	
MIN		28.8	4.23	6.92	3613	7250			27.3	11.9	23.0	1866	2726	
MAX		51.6057	14.9504	23.2	6490	9250			48.3	43.7	63.8	3830	7410	

Exhibit D

Solids Flow Summary

2014	MSW Received (tons)	Daily Avg. MSW (tons)	Wood Received (tons)	Daily Avg Wood (tons)	G&G Out (tons)	Ferrous Out (tons)	Ash Out (tons)	Non-Pro Out (tons)	By Passed MSW (tons)	Ash Produced (tons)	NP's Ground (tons)
Jan	25,386	819	2,805	90	5,039	698	4,426	-	-	4,443	432
Feb	20,513	733	1,116	40	4,319	522	3,920	-	-	4,051	1,090
Mar	21,979	709	285	9	3,427	477	3,227	-	1,613	3,193	484
Apr	28,752	958	508	17	3,185	404	5,918	-	-	5,954	1,199
May	27,884	899	136	4	4,969	940	5,032	-	-	4,996	523
Jun	25,235	841	58	2	4,614	718	4,238	-	-	4,276	1,378
Jul	29,282	945	45	1	5,004	809	4,608	-	-	4,570	1,034
Aug	27,077	873	53	2	5,564	678	4,432	-	-	4,440	767.9
Sep	24,102	803	49	2	4,280	521	4,604	-	-	4,596	480.7
Oct	28,884	963	48	2	5,367	830	4,374	-	-	4,374	1,383.9
Nov	25,111	837	29	1	5,504	639	4,447	-	-	4,454	619.3
Dec	28,111	907	34	1	6,612	855	4,669	-	-	4,687	1,294.2
Y-T-D	312,315	856	5,164	14	57,885	8,091	53,895	-	1,613	54,034	10,686

2014	MSW Processed (tons)	Daily Avg MSW (tons)	RDF Produced (tons)	G&G Produced (tons)	Ferrous Produced (tons)	Non-Pro Produced (tons)	% RDF	% G&G	% Ferr	% N/P
Jan	24,686	796	18,876	5,039	598	174	76.5%	20.4%	2.4%	0.7%
Feb	21,563	770	16,896	4,319	647	(300)	78.4%	20.0%	3.0%	-1.4%
Mar	17,904	578	13,850	3,427	452	175	77.4%	19.1%	2.5%	1.0%
Apr	26,852	895	23,249	3,185	694	(275)	86.6%	11.9%	2.6%	-1.0%
May	30,134	972	23,964	4,969	675	525	79.5%	16.5%	2.2%	1.7%
Jun	24,385	813	19,442	4,614	728	(400)	79.7%	18.9%	3.0%	-1.6%
Jul	28,682	925	22,954	5,054	749	(75)	80.0%	17.6%	2.6%	-0.3%
Aug	28,977	935	22,685	5,514	703	75	78.3%	19.0%	2.4%	0.3%
Sep	23,102	770	18,100	4,280	546	175	78.4%	18.5%	2.4%	0.8%
Oct	27,684	893	21,787	5,367	755	(225)	78.7%	19.4%	2.7%	-0.8%
Nov	26,061	841	19,451	5,561	804	245	74.6%	21.3%	3.1%	0.9%
Dec	28,861	931	21,911	6,555	665	(270)	75.9%	22.7%	2.3%	-0.9%
Y-T-D	308,890	846	243,165	57,885	8,016	(176)	78.7%	18.7%	2.6%	-0.06%