



Wheelabrator Bridgeport, L.P.

A Waste Management Company

6 Howard Avenue
Bridgeport, CT 06605

June 6, 2013

Ms. Melanie Bachman
Acting Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Wheelabrator Bridgeport, L.P. – Wheelabrator Bridgeport Resource Recovery Facility Ten-Year Forecast of Connecticut Electric Loads and Resources for the CT Siting Council Review Docket No. F-2012/2013 as per email dated May 24, 2013

Dear Ms. Bachman:

Wheelabrator Bridgeport, L.P., hereby submits the attached information to the Connecticut Siting Council as described in your request dated May 24, 2013. As described in the request, 15 copies are being provided and one electronic pdf copy to siting.council@ct.gov. Please note that this submission is in addition to the annual submission sent to your office on January 28th of this year.

If you have any questions or require additional information, please do not hesitate to contact me at 203-579-2607 x2212 or our EHS Manager, Ed Gusciora at 203-579-2607 x2216.

Sincerely,

Glenn Lockhart
Plant Manager

cc: Ed Gusciora, WB
File: EnvOther.11.5100.2013.6.6 Siting Council Docket No 2012/2013.pdf

Docket F-2012/2103

Wheelabrator Bridgeport L.P. Pre-Hearing Interrogatories

1. How does Wheelabrator Bridgeport L.P. (Wheelabrator) compute seasonal claimed capability?

The seasonal claimed capability is computed mainly by operational knowledge based on past operating data over 25 years of operating the Plant. It is basically:

$$\text{Net Capability} = (F \div C) - P_{IH}$$

Where:

F = Expected steam flow from the boilers to the turbine in klb/hr

C = Expected Turbine/Generator (T/G) conversion rate in lb of steam/kwhr

P_{IH} = Expected in-house power usage in MW

The Net Capability is lower in the summer months due reduced turbine efficiency to higher turbine backpressure caused by higher cooling water temperature leaving the cooling tower.

2. Listed below are the data from May 2013 ISO-NE Seasonal Claimed capability Report. Does Wheelabrator agree with these numbers? If no, provide the correct data.

Net Capability - MW	Summer	Winter
Wheelabrator Bridgeport L.P.	59.27	59.87

Wheelabrator agrees with these numbers.

3. Does Wheelabrator have black start capability?

Wheelabrator does not have black start capability.

4. What is the typical service life (in years) for the above facility? At what point in the service life is the facility currently?

The typical service life of a Waste to Energy plant like Wheelabrator Bridgeport is at least 50 years. The facility is currently in twenty-fifth (25th) year of service.

5. Does Wheelabrator have a decommissioning plan for when such facility is retired or removed from service? If yes, provide the decommissioning plan. If no explain.

Yes, attached.

Wheelabrator Bridgeport L.P. 2013 Closure Plan Update

1.0 Method of Closure

This closure plan is designed to document costs associated with the scenario of closing Wheelabrator Bridgeport L.P., Bridgeport, CT in the event of an unscheduled, sudden total shutdown. Activities associated with closure include removal of waste, stored materials, chemicals and lubricants. A thorough cleaning and decontamination of the facility must also be performed, including wash down and general housekeeping activities with the disposal and or potential sale of all equipment that would be determined as not included. All the termination of contracts and rental agreements with a 15% contingency to cover unforeseen events or activities. These activities are discussed below in more detail.

1.1 Permit Conditions

Permittee shall establish for the Commissioner's benefit an acceptable financial assurance instrument and post the calculated financial assurance with the Department, as required by Section 22a-6(a)(7) of the CGS in conjunction with the general requirements of Section 22a-209-4(i) of the RCSA. The Permittee shall acknowledge and accept the following:

- a The purpose of the financial assurance is to cover the third party costs for handling, removing, transporting and disposing the maximum permitted amount of unprocessed and processed solid waste at the Facility, and any additional cost(s) to ensure the proper closure of storage areas including, but not limited to, equipment rental, site clean-up, the decontamination and disposal of all equipment and processing and storage areas, and a 15% contingency to cover unforeseen events or activities that may increase the overall cost to close the permitted solid waste Facility.
- b The financial assurance instruments shall follow the requirements of Section 22a-209-4(i) of the RCSA, and 40 CFR 264.141 to 264.143 inclusive and 40 CFR 264.151, as referenced therein. The Permittee shall ensure that the financial assurance instrument is established in a format specified by the Commissioner for closure or post-closure maintenance and care, as appropriate.

The Department accepts five (5) types of financial assurance instruments, they are: (a) Trust Fund; (b) Irrevocable Standby Letter of Credit; (c) Financial Guarantee "Payment" Bond; (d) Performance Bond; and (e) Certificate of Insurance. The following documents are also required to be submitted in addition:

- i. A cover letter signed by the Permittee shall be submitted along with the (b) instrument, in accordance with Section 40 CFR 264 143(d)(4)
 - ii A "Standby Trust Agreement" shall be submitted along with either (b), (c), or (d) instrument. The format is the same as for (a) above for a Trust Fund instrument
 - iii. A "Certification of Acknowledgement" shall be submitted along with the (a) instrument
- c The financial assurance shall:
 - i. Be valid for, and appropriately maintained during, the term of the Permit to Operate;
 - ii. Specify the Permittee's name, the Facility's address, the number and issuance date of the Permit to Operate, and
 - iii. Be established in one of more of, the instrument formats found on DEP website [www.ct.gov/DEP/financialassurance]

The financial assurance instrument shall be adjusted annually for inflation within the sixty (60) days prior to the anniversary date of the instrument, and whenever there is a change in operations that affects the cost of closing the facility in accordance with the requirements of 40 CFR 264 142(b) as incorporated in the RCSA

1.1 Disposal of On-Site MSW and Ash

The pit and ash residue storage areas are assumed to contain approximately 575 tons of MSW. The facility has agreements in place to dispose of ash at the Putnam Ash Monofill in CT. Since Bridgeport's process does not store ash but feed directly into ash trucks that are removed immediately, there potentially could only be an incident amount of ash stored locally, or if stored on the tipping floor, would offset the higher cost MSW that is already covered in this plan. Therefore costs associated with ash disposal only need to consider transportation costs.

1.3 Building Cleaning.

Once the waste material is removed from the facility, the storage areas of MSW and Ash residue would be thoroughly washed by high-pressure washing. These areas include the tipping floor, pit, crane buckets, charging hoppers, ram feeders, residue conveyors and ash/metal storage building. All wash water that meets the conditions of facility's Industrial Discharge Permit limits, or can be treated to meet the limits, upon review with the Bridgeport Water Treatment Authority and CTDEEP will be discharged to the sewer system, otherwise, captured in the building and reviewed for disposal at a local water treatment facility.

1.4 Equipment Decommissioning

Non-contact cooling water (325,000 gallons) discharges are permitted by the Industrial Discharge Permit and will be discharged to the sewer system. Other chemicals, wastes and by-products of the process used/stored include various sumps and conveyers, slurry/dilution water tanks and piping and a wastewater storage tank will be evaluated for disposal.

The chemicals are to be consider a commodities and are assumed to be sold to a third party at pricing, which would exceed the disposal, cost. The waste and by-products of the process are to be characterized and disposed based on the characterization at the time of closure, by a third party at the appropriate pricing at the time of the event.

1.5 Labor

This includes the major labor intensive activities needed to close the facility. Work activities include:

- 1.4.1 Assisting the haulers with refuse and residue loading operations.
- 1.4.2 General Facility cleaning, inside and outside.
- 1.4.3 Drain, flush, and certify storage vessels and process piping.
- 1.4.4 Securing the facility buildings and fence line.
- 1.4.5 Shutting off all utilities at the facility.

1.6 Sampling and analysis

Samples will be taken of the wash water used to clean the MSW storage area, ash storage area, and equipment used to handle MSW and ash. The wash water will be sampled for organic pollution (ex. BOD or COD) and heavy metals. Cleaning will be performed until areas meet CTDEEP closure limits. Wastewater will be clarified and then analyzed for discharge permit limits for review with the Bridgeport Water Treatment Authority and CTDEEP will be discharged to the sewer system, otherwise, reviewed for disposal at a local water treatment facility.

1.7 Engineering Supervision and Certification

A registered professional engineer will supervise the entire work effort for the facility closure. She/he will direct tasks in order for fully clean secure and vacate the facility. Once work is completed he/she will certify that the facility qualifies for closure.

2.0 **Closure Cost**

2.1 MSW and ash disposal

2.1.1 Refuse disposal

$\$65/\text{ton} \times 15,750 \text{ tons} = \$1,023,750$
 $15,750 \text{ tons}/22 \text{ tons/box} = 716 \text{ truck trips}$
 $100 \text{ truck trips}/\text{days} = 7 \text{ truck days}$

2.1.2 Ash disposal

Disposal fee $(\$76/\text{ton} \times 550 \text{ tons}) = \$41,800$

Total cost for Section 2.1: **potential cost offset from MSW disposal**

2.2 Building Cleaning.

- 2.2.1 High pressure washing of the tipping floor total.
Refuse Storage pit dimensions 65' x 94' x 250'
Tipping floor dimensions 101' x 280'
4 days labor of power using crew of 3-4 persons
Cost: \$40,000

Source:

- 2.2.2 Process building wash down. Cost: \$40,000

Source:

Total costs for Section 2.2: **\$80,000**

2.3 Equipment Decommissioning

- 2.3.1 Wastewater storage tank (200,000 gal.),

- 2.3.2 Boiler 1, 2 & 3

- 2.3.3 Slurry & dilution water tank

Cost: \$260,718.75 (off-site disposal).

Source: Clean Harbors Environmental Services

- 2.3.2 Cooling tower basin (60,000 gal.).

Cost: \$0

Source: On-site disposal through existing IDP permit.

- 2.3.3 Flushing lime slurry pipes.

Cost: \$8,864.43

Source: Clean Harbors Environmental Services

- 2.3.4 Cleaning of sumps and conveyers

- a. Contact water sump (10,500 gal.).

- b. Lime prep sump (500 gal.).

- c. Ash slab sump (250 gal.)

- d. BAC#1 & #2 (2500 gal.)

Cost: \$33,893.43

Source: Clean Harbors Environmental Services

- 2.3.5 Boiler cleaning of combustion chambers, pressure washing and furnace blasting.

- a. Blasting three boilers. Cost: \$8,343

- b. Washing both boilers. Cost: \$16,686

Source: Precision Blasting

Source: Veolia Environmental Services

Total costs Section 2.3. **\$328,505.61**

A written closure estimate was prepared based on the Concord model

The updated closure **ESTIMATE** to be reviewed by finance, legal and management to assess the accuracy of contractual terms and conditions implied or assumed, and if in full agreement, and then modify the financial assurance bond accordingly.

2.4 Labor

Labor necessary to close the facility is estimated 20 workers for 2 weeks working 40 hrs per week. Activities will include assisting haulers with refuse and residue loading operations, general facility cleaning (both inside and outside), draining and flushing liquid vessels and lime slurry pipes and tanks, securing the facility buildings and fence line and shutting off all utilities to the facility.

20 workers x 2 weeks x 40hr/week x \$36.00/hr = **\$57,600**

2.5 Sampling and Analysis

Sample collection and analysis for facility cleaning = **\$26071.87**

2.6 Engineering

Licensed engineer to provide supervision and facility closure.
6 man weeks x 40hr/week x \$122.00/hr = **\$29,280**

2.7 Closure cost summary

Sec. 2.1 MSW and ash disposal	\$1,065,550
ash disposal	
Sec. 2.2 Building Cleaning	\$ 59,965.25
Sec. 2.3 Equipment Decommissioning	\$328,505.61
Sec. 2.4 Labor	\$ 57,600.00
Sec. 2.5 Sampling/analysis	\$ 26,071.87
Sec. 2.6 Engineering	\$ 29,280.00
Subtotal Closure Costs	\$550,577.73
Contingency (15%)	\$ 82,136.65
Total Closure Costs	<u>\$1,658,264.38</u>

Facility Name: Wheelabrator Bridgeport L.P.
 Address: 6 Howard Ave, Bridgeport, CT 06605
 Owner: Wheelabrator Bridgeport L.P.
 CTDEEP Permit #: 015-1-WP-015-RR

Cost Estimate form for financial Assurance
 State of Connecticut
 Department of Energy and Environmental Protection
 Waste Management Division; Solid Waste Management Bureau
 79 Elm St, Hartford CT 06105-5112
 860-424-3315 CO Cain Tanovici

Complete this form in accordance with the RI Solid Waste Regul Part Env-SW 1003.02

Permitted Material	Quantity ¹ SPR ²	Quantity ¹ Non-SPR ²	Unit	Loading Cost Per Unit (Non-SPR)	Transp. Cost Per Unit (Non-SPR)	Disposal Cost Per Unit (Non-SPR)	Total Cost Per Unit (Non-SPR)	Total Cost	Disposal Destination
Ash	0	550	Ton	\$0.00	\$0.00	\$76.00	\$76.00	\$41,800.00	Putnam Landfill
Bulky Waste/White Goods	0	0	Ton	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A
Byproduct/Residual Waste	0	0	Ton	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A
C&D Debris	0	0	Ton	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A
CFC Containing Appliances	0	0	Ton	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A
Chemicals/Hazardous/Universal Wastes - Liquid	0	0	Gallon	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A
Contaminated Soil/Media	0	0	Ton	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A
E-Scrap/CRTs	0	0	Ton	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A
Hazardous/Universal Wastes - Solid	0	0	Ton	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A
Leachate	0	0	Ton	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A
Mixed MSW/MSW/Non-Recyclable Wastes for Disposal	0	15750	Gallon	\$0.00	\$0.00	\$65.00	\$65.00	\$1,023,750.00	Waste Management
Non-Metal Unprocessed Recyclable Waste	0	0	Ton	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A
Tires	0	0	Ton	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A
Unprocessed Waste	0	0	Ton	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A
Unprocessed Recyclables - Commingled	0	0	Ton	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A
Other (list):	0	0	Gallon	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A
Total Cost								\$1,065,550.00	
Site Cleanup (per approved closure plan)									
Labor:	General labor for closure (1600 hours)								
Equipment Decommissioning	Boiler blasting/washing, drain & flush storage tanks, sumps & lime slurry pipes								
Equipment Removal	Pressure wash refuse pit, tipping floor, process building								
Building Cleaning	Sampling/analysis to ensure clean closure								
Other: Analytical									
Other:									
Miscellaneous Closure Work	Project Manager/Engineering Oversight								
Administrative	MSW/ASH (from above)								
Other:									
Subtotal									
Contingency (minimum 10%)									
Total Cost									
This form provides a basis for estimating closure costs for Financial Assurance purposes. This form is not indicative of all costs that may be associated with the landfill closure. The cost estimate must include all items needed to comply with all DEEP permits.									
Note:									
1 The combined Quantity of SPR and Non-SPR must equal the maximum permitted storage capacity allowed.									
2 A select processed recyclable (SPR) is a recyclable material (e.g. material comprised of one of the following materials: paper, cardboard, glass, plastic, ferrous metal, non-ferrous metal, or textile materials) which has been physically sorted and separated by material type, formed into bales or otherwise physically processed and packaged in a manner satisfying the specifications for transportation to and acceptance by a market that will use the material for the production of certified waste-derived products.									
This closure cost estimate has been figured based on representative current market rates for having a third party perform all required closure and post-closure activities at the point in the facility's active life when the stoppage and removal of operations in compliance with permit conditions and applicable laws and rules makes closure the most expensive, as indicated by the approved facility closure plan.									

Signature of Preparer: *[Signature]* Date: 6-6-13

Signature of Permittee: *[Signature]* Date: 6/6/13