



3715 Northside Pkwy., Building 300, Suite 400
Atlanta, GA 30327
tel: 404 720-1400
fax: 404 467-4130

To FDEP SW District, Susan Pelz *SP*

Dept. of Environmental
Protection

MAY 02 2011

Southwest District

April 29, 2011

Mr. John Power
Solid Waste Department Operations Manager
Pasco County
14230 Hayes Road
Spring Hill, FL

Subject: West Pasco Class I Landfill-Revised NMOC Emission Rate Report
Power Plant Certification No. PA87-23

Dear Mr. Power:

Camp Dresser & McKee Inc. (CDM) is pleased to provide you with an annual revision of the non-methane organic compound (NMOC) emission estimate for the West Pasco Class I Landfill (Landfill) located at Pasco County Resource Recovery Facility in Spring Hill, Florida. In accordance with 40 CFR 60.757(b) (1), Pasco County is required to submit an annual NMOC emission estimate to FDEP until the NMOC emission rate exceeds 50 Mg/Yr. The annual NMOC emission report must be based on the actual waste disposal information for the subject year and use the site specific NMOC concentration of 36 ppmv as hexane. This report provides an annual revision to the prior NMOC emission rate obtained from the Tier II testing conducted in December 2009, and includes waste in place through the end on 2010.

The prior Tier II results demonstrated that the landfill did not exceed the 50 Megagram per year (Mg/yr) limit established by 40 CFR 60 Subpart WWW; exceedance of this limit would have required the installation of a gas collection and control system (GCCS). The landfill is currently exempt from installing a GCCS.

Any disposed waste that is not yet two years old in the active parts of the landfill is not subject to Tier II sampling requirements. However landfill areas having waste in place which is two or more years old are subjected to Tier II sampling per 40 CFR 60.754(a)(3). Hence all the waste disposed in the landfill through the end of December 2010 is used in this estimate, since the active area (cell SW-2) contains waste more than two years old.





Mr. John Power
April 29, 2011
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UPDATED NMOC EMISSION ESTIMATE (2010)

The waste tonnages from the landfill facility from inception in June 1990 through July 2008 are provided in Attachment-1A; and tonnages from July 2008 through December 2010 are provided in Attachment-1B. Attachment 2 presents an updated NMOC emission estimate for waste in place through end of December 2010 and was calculated using the United States Environmental Protection Agency (USEPA) recommended Landfill Gas Generation Emissions Model (LandGEM Version 3.02). Based on the results of the modeling, the calculated NMOC emission rate is 0.401 Mg/Yr. The emission estimate has not yet exceeded the 50 Mg/Yr limit established by 40 CFR 60 Subpart WWW; which requires the installation of a GCCS. The current site specific data shows the NMOC emission rate to be significantly below that required for installation of a GCCS per requirements of 40 CFR 60 Subpart WWW. In accordance with 40 CFR 60.754(a)(3)(iii), it will be necessary for the County to retest the site-specific NMOC concentration every five years in order to determine if the exempt status can be maintained, particularly if more waste is placed within the landfill during this time. Since the last site-specific NMOC sampling was performed in December 2009, the retesting for site specific NMOC emissions is required by December 2014.

CDM is submitting four copies of original reports to the County. Please forward one signed and sealed original to each of the two FDEP sections listed below. If you have any questions or comments regarding this letter or the data presented herein, please call me at (404) 720-1400 or Aamod at (813) 281-2900.

Sincerely

A handwritten signature in black ink, appearing to read 'R. Vaidya' with a stylized flourish at the end.

Rajendra Vaidya, Ph.D., P.E.
Environmental Engineer
Camp Dresser & McKee Inc.



Mr. John Power
April 29, 2011
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Enclosures

- 1) Division of Air Resource Management
Florida Department of Environmental Protection
Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, Florida 33637

- 2) Ms. Susan Pelz, P.E.
Solid Waste Section
Florida Department of Environmental Protection
Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, Florida 33637

cc: Aamod Sonawane, CDM
Therese Schaffer, CDM (email copy only)



FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

MAY 02 2011

SOUTHWEST DISTRICT
TAMPA

Pasco County Utilities

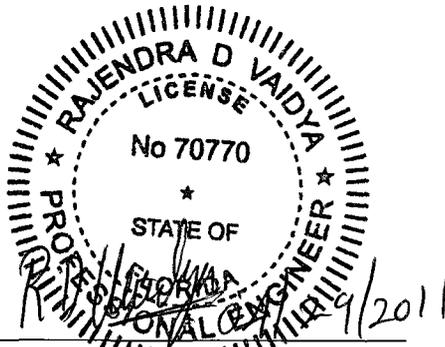
**West Pasco Class I Landfill
Solid Waste Cells SW-1 and SW-2
Revised NMOC Emission Rate Report
For Reporting Year 2010
Power Plant Certification No. PA87-23**

**14230 Hays Road
Spring Hill, Pasco County, Florida**

April 2011

Prepared for:
Pasco County Utilities
7530 Little Road
New Port Richey, FL 34654

Prepared by:
Camp Dresser & McKee Inc.
1715 North Westshore Blvd., Suite 875
Tampa, Florida 33607



Rajendra D. Vaidya, Ph.D., P.E.
Florida-Registered
Professional Engineer No. 70770



Attachment-1A

Waste Disposal Information-

June 1990 through July 2008

Attachment 1A

Table 1A-1 Summary of Tonnage

Cell	From	To	Glass Cullet (US Tons)	MSW (US Tons)
SW-1	Jun-90	Sep-96	752.24	0.00
	Oct-96	Sep-97	1,766.94	0.00
	Oct-97	Jun-98	616.41	16,253.47
	Jul-98	Jul-99	812.95	4,824.23
	Aug-99	Jun-00	609.23	39,336.90
	Jul-00	Sep-01	482.68	15,907.86
	Oct-01	Sep-02	266.46	17,260.70
	Oct-02	Sep-03	507.53	88.77
	Oct-03	Jun-04	609.89	10.94
	Jul-04	Oct-04	70.39	11,328.69
SW-2	Nov-04	Sep-05	11.73	44,372.95
	Oct-05	Jul-06	0*	53,622.39
	Aug-06	Jul-07	-	55,217.06
	Aug-07	Jul-08	-	7,394.19

Note: 1) Glass Cullet is primarily silica like inert material obtained from waste to energy operations by combustion of waste. 2) * denotes that Glass Cullet was stopped being disposed in SW cells.

Table 1A-2 MSW Yearly Tonnage Disposal

Year	MSW (US Tons)
1990	0.00
1991	0.00
1992	0.00
1993	0.00
1994	0.00
1995	0.00
1996	0.00
1997	5,417.82
1998	13,062.21
1999	20,478.07
2000	27,819.63
2001	13,859.89
2002	12,967.72
2003	70.23
2004	19,403.79
2005	52,391.86
2006	60,542.78
2007	35,290.86
2008	4,313.28

Note: Yearly tonnage from June 1990 to July 2008

**PASCO COUNTY, FLORIDA
INTER-OFFICE MEMORANDUM**

TO: Colleen Scott
Manager of Accounting
And Financial Reporting

DATE: 01/09/09

FILE: UTFSSP09-153

THRU: Robert J. Sigmond
Utilities Fiscal and
Business Services Director

SUBJECT: Financial Responsibility
Long Term Care/Closure
West Pasco Class 1-SW1&SW2
GMS#4051M30035
PAS 87-23

FROM: Joanne M. Chamberlain
Accountant II
Utilities Solid Waste

REFERENCE:

Please note the following figures to be utilized as Escrow/Accrual for Long Term Care and Closure:

West Pasco Class I SW-1 & SW-2 - 20 Acres
Hays Road, Spring Hill

Built as a municipal solid waste cell.

Design for SW-1 is 465,000 cy (per Camp, Dresser & McKee) - estimated for 24 year life. Construction was completed in June 1990. Design for SW-2 is 465,000 cy, and it was completed in 2002. The purpose was primarily to be an emergency by-pass for solid waste in case the Waste-To-Energy Facility was not operational. Glass cullet, resulting from the MRF operation had been the only waste permanently landfilled prior to fiscal year 1998. MSW had been placed in the cell but was removed and utilized by the Waste-To-Energy Facility. MSW tonnages were then permanently landfilled through September 2002. The Class SW-1 landfill operation was stopped on October 22, 2004. The Class SW-2 landfill then began receipt of Municipal Solid Waste on November 9, 2004.

Solid Waste Cell 1

	<u>Glass Cullet</u>	<u>MSW</u>	<u>Total</u>
Inception thru September 1996	752.24		752.24
October 1, 1996 thru Sept. 1997	1,766.94		1,766.94
October 1, 1997 thru June 1998	616.41	16,253.47	16,869.88
July 1, 1998 thru July 1999	812.95	4,824.23	5,637.18
August 1, 1999 thru June 2000	609.23	39,336.90	39,946.13
July 1, 2000 thru Sept. 2001	482.68	15,907.86	16,390.54
October 1, 2001 thru Sept. 2002	266.46	17,260.70	17,527.16
October 1, 2002 thru Sept. 2003	507.53	88.77	596.30
October 1, 2003 thru June 2004	609.89	10.94	620.83
July 1, 2004 thru Oct. 2004	<u>70.39</u>	<u>11,328.69</u>	<u>11,399.08</u>

TOTAL:	6,494.72	105,011.56	111,506.28
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Solid Waste Cell 2

	Glass Cullet	MSW	Total
November 2004 thru Sept. 2005	11.73	44,372.95	44,384.68
October 2005 thru July 2006	0*	53,622.39	53,622.39
August 2006 thru July 2007	0	55,217.06	55,217.06
August 2007 thru July 2008	<u>0</u>	<u>7,394.19</u>	<u>7,394.19</u>
TOTAL:	11.73	160,606.59	160,618.32
Total of SW-1 and SW-2:	6,506.45	265,618.15	272,124.60

*Glass Cullet no longer goes to the Solid Waste cells

1 Ton of glass cullet equals 1.23 cubic yards.

6,506.45 tons x 1.23 cubic yards = 8,002.93 yards.

1 Ton of MSW equals 1.43 cubic yards.

265,618.15 tons x 1.43 cubic yards = 379,833.95 yards.

Landfill cover @ 15% = 58,175.53 yards.

Closure costs are based on SW1 & SW2 combined by FDEP letter dated January 6, 2009 (attached).
Estimated closure costs are \$2,336,591.74.

Glass Cullet	8,002.93 yards
MSW	379,833.95 yards
Cover	<u>58,175.53 yards</u>
Total	446,012.41

Escrow:

Estimated closure costs	\$2,336,591.74
Long Term Care	<u>0.00</u> (Still Open)
	\$2,336,591.74
	\$2,336,591.74
	<u>.7361*</u>
	\$1,719,965.18

* CE x (DE/DL)-E
\$2,336,591.74 (212/288 months) - 0

Utilize 212 months thru September 30, 2008 for escrow

Accrual:

Estimated closure costs	\$2,336,591.74	
Long Term Care	<u>5,790,258.21</u>	(\$193,008.61 x 30 years)
	\$8,126,849.95	
	\$8,126,849.95	
	<u>.4796*</u>	percent of capacity
	\$3,897,637.24	

*446,012.41 / 930,000 cubic yards = .4796

Please increase escrow from \$1,582,955.42 to \$1,719,965.18.

Please increase accrual from \$3,688,400.58 to \$3,897,637.24.

Any questions, please advise.

RJS/jmc

cc: Bruce E. Kennedy, P.E., Assistant County Administrator (Utilities Services Branch)
John P. Power, Solid Waste Facility Manager

Attachment-1B

Waste Disposal Information-

July 2008 through December 2010

**PASCO COUNTY UTILITIES - SOLID WASTE
TONNAGE SUMMARY FROM COUNTY DATA**

Table 1B-1 Yearly Tonnage Disposal

Period	Landfilled Class I Putrescible Waste (U.S Tons)
Aug-08	226.31
Sep-08	454.89
Oct-08	164.66
Nov-08	129.68
Dec-08	85.42
Jan-09	110.23
Feb-09	66.14
Mar-09	97.07
Apr-09	200.87
May-09	47.32
Jun-09	0.00
Jul-09	17.22
Aug-09	21.30
Sep-09	0.00
Oct-09	33.48
Nov-09	230.69
Dec-09	1,147.67
Jan-10	2.91
Feb-10	0.00
Mar-10	1.27
Apr-10	62.51
May-10	54.35
Jun-10	93.44
Jul-10	41.56
Aug-10	134.02
Sep-10	137.44
Oct-10	47.54
Nov-10	87.91
Dec-10	41.53

PASCO COUNTY UTILITIES - SOLID WASTE

TONNAGE SUMMARY - 2008

Quarter Ending September 30, 2008

West Pasco Class I Tonnage

MATERIAL	JULY	AUGUST	SEPTEMBER
1 Household Waste	0.00	0.00	0.00
2 Commercial Waste	0.00	0.00	0.00
3 Ash Residue **	7,842.84	7,686.09	7,762.61
4 Incinerator By-Pass Waste	0.00	0.00	0.00
5 Construction & Demolition Debris	0.00	0.00	0.00
6 Treated Biomedical Waste	0.00	0.00	0.00
7 Agricultural Waste	0.00	0.00	0.00
8 Industrial Waste	0.00	0.00	0.00
9 Yard Trash - IN	0.00	0.00	0.00
10 Sewage Sludge	349.88	226.31	454.89
11 Industrial Sludge	0.00	0.00	0.00
12 Water/Air Treatment Sludges	0.00	0.00	0.00
13 Waste Tires - IN	0.00	0.00	0.00
13 Waste Tires - Tires Chipped	0.00	0.00	0.00
Total Tonnage Weighted IN	8,192.72	7,912.40	8,217.50
LESS: Yard Trash Stored	0.00	0.00	0.00
Yard Trash Mulched	0.00	0.00	0.00
Yard Trash Mulched & Landscaping	0.00	0.00	0.00
Yard Trash Mulched & to WTE	0.00	0.00	0.00
Waste Tires Stored/Removed	0.00	0.00	0.00
Waste Tires Moved to WTE	0.00	0.00	0.00
Tons Moved to WTE	0.00	0.00	0.00
Total Tonnage Landfilled	8,192.72	7,912.40	8,217.50
Total Tonnage Processed by WTE			
Total Tonnage Received @ Transfer Station			
ASH CELL **	7,842.84	7,686.09	7,762.61
SOLID WASTE CELL	349.88	226.31	454.89

@@ = Yard Waste is Mulched and Provided to the residents Free of Charge as "Landscaping Mulch."

** = Ash Residue is the only Material Disposed of in the Ash Landfill.

PASCO COUNTY UTILITIES - SOLID WASTE

TONNAGE SUMMARY - 2008

Quarter Ending December 31, 2008

MATERIAL	West Pasco Class I Tonnage		
	OCTOBER	NOVEMBER	DECEMBER
1 Household Waste	0.00	0.00	0.00
2 Commercial Waste	0.00	0.00	0.00
3 Ash Residue **	6,658.72	6,493.18	7,869.64
4 Incinerator By-Pass Waste	0.00	0.00	0.00
5 Construction & Demolition Debris	0.00	0.00	0.00
6 Treated Biomedical Waste	0.00	0.00	0.00
7 Agricultural Waste	0.00	0.00	0.00
8 Industrial Waste	0.00	0.00	0.00
9 Yard Trash - IN	0.00	0.00	0.00
10 Sewage Sludge	164.66	129.68	85.42
11 Industrial Sludge	0.00	0.00	0.00
12 Water/Air Treatment Sludges	0.00	0.00	0.00
13 Waste Tires - IN	0.00	0.00	0.00
13 Waste Tires - Tires Chipped	0.00	0.00	0.00
Total Tonnage Weighted IN	6,823.38	6,622.86	7,955.06
LESS: Yard Trash Stored	0.00	0.00	0.00
Yard Trash Mulched	0.00	0.00	0.00
Yard Trash Mulched & Landscaping	0.00	0.00	0.00
Yard Trash Mulched & to WTE	0.00	0.00	0.00
Waste Tires Stored/Removed	0.00	0.00	0.00
Waste Tires Moved to WTE	0.00	0.00	0.00
Tons Moved to WTE	0.00	0.00	0.00
Total Tonnage Landfilled	6,823.38	6,622.86	7,955.06
Total Tonnage Processed by WTE			
Total Tonnage Received @ Transfer Station			
ASH CELL **	6,658.72	6,493.18	7,869.64
SOLID WASTE CELL	164.66	129.68	85.42

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PASCO COUNTY UTILITIES - SOLID WASTE

TONNAGE SUMMARY - 2008

Quarter Ending March 31, 2009

MATERIAL	West Pasco Class I Tonnage		
	JANUARY	FEBRUARY	MARCH
1 Household Waste	0.00	0.00	0.00
2 Commercial Waste	0.00	0.00	0.00
3 Ash Residue **	7,102.45	6,939.37	5,046.67
4 Incinerator By-Pass Waste	0.00	0.00	0.00
5 Construction & Demolition Debris	0.00	0.00	0.00
6 Treated Biomedical Waste	0.00	0.00	0.00
7 Agricultural Waste	0.00	0.00	0.00
8 Industrial Waste	0.00	0.00	0.00
9 Yard Trash - IN	0.00	0.00	0.00
10 Sewage Sludge	110.23	66.14	97.07
11 Industrial Sludge	0.00	0.00	0.00
12 Water/Air Treatment Sludges	0.00	0.00	0.00
13 Waste Tires - IN	0.00	0.00	0.00
13 Waste Tires - Tires Chipped	0.00	0.00	0.00
Total Tonnage Weighted IN	7,212.68	7,005.51	5,143.74
LESS: Yard Trash Stored	0.00	0.00	0.00
Yard Trash Mulched	0.00	0.00	0.00
Yard Trash Mulched & Landscaping	0.00	0.00	0.00
Yard Trash Mulched & to WTE	0.00	0.00	0.00
Waste Tires Stored/Removed	0.00	0.00	0.00
Waste Tires Moved to WTE	0.00	0.00	0.00
Tons Moved to WTE	0.00	0.00	0.00
Total Tonnage Landfilled	7,212.68	7,005.51	5,143.74
Total Tonnage Processed by WTE			
Total Tonnage Received @ Transfer Station			
ASH CELL **	7,102.45	6,939.37	5,046.67
SOLID WASTE CELL	110.23	66.14	97.07

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PASCO COUNTY UTILITIES - SOLID WASTE

TONNAGE SUMMARY - 2008

Quarter Ending June 30, 2009

West Pasco Class I Tonnage

MATERIAL	APRIL	MAY	JUNE
1 Household Waste	0.00	0.00	0.00
2 Commercial Waste	0.00	0.00	0.00
3 Ash Residue **	7,662.90	7,428.22	7,840.18
4 Incinerator By-Pass Waste	0.00	0.00	0.00
5 Construction & Demolition Debris	0.00	0.00	0.00
6 Treated Biomedical Waste	0.00	0.00	0.00
7 Agricultural Waste	0.00	0.00	0.00
8 Industrial Waste	0.00	0.00	0.00
9 Yard Trash - IN	0.00	0.00	0.00
10 Sewage Sludge	200.87	47.32	0.00
11 Industrial Sludge	0.00	0.00	0.00
12 Water/Air Treatment Sludges	0.00	0.00	0.00
13 Waste Tires - IN	0.00	0.00	0.00
13 Waste Tires - Tires Chipped	0.00	0.00	0.00
Total Tonnage Weighted IN	7,863.77	7,475.54	7,840.18
LESS: Yard Trash Stored	0.00	0.00	0.00
Yard Trash Mulched	0.00	0.00	0.00
Yard Trash Mulched & Landscaping	0.00	0.00	0.00
Yard Trash Mulched & to WTE	0.00	0.00	0.00
Waste Tires Stored/Removed	0.00	0.00	0.00
Waste Tires Moved to WTE	0.00	0.00	0.00
Tons Moved to WTE	0.00	0.00	0.00
Total Tonnage Landfilled	7,863.77	7,475.54	7,840.18
Total Tonnage Processed by WTE			
Total Tonnage Received @ Transfer Station			
ASH CELL **	7,662.90	7,428.22	7,840.18
SOLID WASTE CELL	200.87	47.32	0.00

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PASCO COUNTY UTILITIES - SOLID WASTE

TONNAGE SUMMARY - 2009

Quarter Ending September 30, 2009

West Pasco Class I Tonnage

MATERIAL	JULY	AUGUST	SEPTEMBER
1 Household Waste	0.00	0.00	0.00
2 Commercial Waste	0.00	0.00	0.00
3 Ash Residue **	5,920.28	7,131.12	7,141.74
4 Incinerator By-Pass Waste	0.00	0.00	0.00
5 Construction & Demolition Debris	0.00	0.00	0.00
6 Treated Biomedical Waste	0.00	0.00	0.00
7 Agricultural Waste	0.00	0.00	0.00
8 Industrial Waste	0.00	0.00	0.00
9 Yard Trash - IN	0.00	0.00	0.00
10 Sewage Sludge	17.22	21.30	0.00
11 Industrial Sludge	0.00	0.00	0.00
12 Water/Air Treatment Sludges	0.00	0.00	0.00
13 Waste Tires - IN	0.00	0.00	0.00
13 Waste Tires - Tires Chipped	0.00	0.00	0.00
Total Tonnage Weighted IN	5,937.50	7,152.42	7,141.74
LESS: Yard Trash Stored	0.00	0.00	0.00
Yard Trash Mulched	0.00	0.00	0.00
Yard Trash Mulched & Landscaping	0.00	0.00	0.00
Yard Trash Mulched & to WTE	0.00	0.00	0.00
Waste Tires Stored/Removed	0.00	0.00	0.00
Waste Tires Moved to WTE	0.00	0.00	0.00
Tons Moved to WTE	0.00	0.00	0.00
Total Tonnage Landfilled	5,937.50	7,152.42	7,141.74
Total Tonnage Processed by WTE			
Total Tonnage Received @ Transfer Station			
ASH CELL **	5,920.28	7,131.12	7,141.74
SOLID WASTE CELL	17.22	21.30	0.00

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PASCO COUNTY UTILITIES - SOLID WASTE

TONNAGE SUMMARY - 2010 FY

Quarter Ending December 31, 2009

West Pasco Class I Tonnage

MATERIAL	OCTOBER	NOVEMBER	DECEMBER
1 Household Waste	0.00	0.00	0.00
2 Commercial Waste	0.00	0.00	0.00
3 Ash Residue **	4,986.25	5,685.49	8,889.75
4 Incinerator By-Pass Waste	0.00	0.00	0.00
5 Construction & Demolition Debris	0.00	0.00	0.00
6 Treated Biomedical Waste	0.00	0.00	0.00
7 Agricultural Waste	0.00	0.00	0.00
8 Industrial Waste	0.00	0.00	0.00
9 Yard Trash - IN	0.00	0.00	0.00
10 Sewage Sludge	33.48	230.69	1,147.67
11 Industrial Sludge	0.00	0.00	0.00
12 Water/Air Treatment Sludges	0.00	0.00	0.00
13 Waste Tires - IN	0.00	0.00	0.00
13 Waste Tires - Tires Chipped	0.00	0.00	0.00
Total Tonnage Weighted IN	5,019.73	5,916.18	10,037.42
LESS: Yard Trash Stored	0.00	0.00	0.00
Yard Trash Mulched	0.00	0.00	0.00
Yard Trash Mulched & Landscaping	0.00	0.00	0.00
Yard Trash Mulched & to WTE	0.00	0.00	0.00
Waste Tires Stored/Removed	0.00	0.00	0.00
Waste Tires Moved to WTE	0.00	0.00	0.00
Tons Moved to WTE	0.00	0.00	0.00
Total Tonnage Landfilled	5,019.73	5,916.18	10,037.42
Total Tonnage Processed by WTE			
Total Tonnage Received @ Transfer Station			
ASH CELL **	4,986.25	5,685.49	8,889.75
SOLID WASTE CELL	33.48	230.69	1,147.67

@@ = Yard Waste is Mulched and Provided to the residents Free of Charge as "Landscaping Mulch."

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PASCO COUNTY UTILITIES - SOLID WASTE

TONNAGE SUMMARY - 2010 FY

Quarter Ending March 31, 2010

MATERIAL	West Pasco Class I Tonnage		
	JANUARY	FEBRUARY	MARCH
1 Household Waste	0.00	0.00	0.00
2 Commercial Waste	0.00	0.00	0.00
3 Ash Residue **	6,716.77	6,700.33	7,149.46
4 Incinerator By-Pass Waste	0.00	0.00	0.00
5 Construction & Demolition Debris	0.00	0.00	0.00
6 Treated Biomedical Waste	0.00	0.00	0.00
7 Agricultural Waste	0.00	0.00	0.00
8 Industrial Waste	0.00	0.00	0.00
9 Yard Trash - IN	0.00	0.00	0.00
10 Sewage Sludge	2.91	0.00	1.27
11 Industrial Sludge	0.00	0.00	0.00
12 Water/Air Treatment Sludges	0.00	0.00	0.00
13 Waste Tires - IN	0.00	0.00	0.00
13 Waste Tires - Tires Chipped	0.00	0.00	0.00
Total Tonnage Weighted IN	6,719.68	6,700.33	7,150.73
LESS: Yard Trash Stored	0.00	0.00	0.00
Yard Trash Mulched	0.00	0.00	0.00
Yard Trash Mulched & Landscaping	0.00	0.00	0.00
Yard Trash Mulched & to WTE	0.00	0.00	0.00
Waste Tires Stored/Removed	0.00	0.00	0.00
Waste Tires Moved to WTE	0.00	0.00	0.00
Tons Moved to WTE	0.00	0.00	0.00
Total Tonnage Landfilled	6,719.68	6,700.33	7,150.73
Total Tonnage Processed by WTE			
Total Tonnage Received @ Transfer Station			
ASH CELL **	6,716.77	6,700.33	7,149.46
SOLID WASTE CELL	2.91	0.00	1.27

@@ = Yard Waste is Mulched and Provided to the residents Free of Charge as "Landscaping Mulch.

** = Ash Residue is the only Material Disposed of in the Ash Landfill.

PASCO COUNTY UTILITIES - SOLID WASTE
TONNAGE SUMMARY - 2010 FY
 Quarter Ending June 30, 2010

MATERIAL	West Pasco Class I Tonnage		
	APRIL	MAY	JUNE
1 Household Waste	0.00	0.00	0.00
2 Commercial Waste	0.00	0.00	0.00
3 Ash Residue **	4,223.04	9,038.49	7,315.29
4 Incinerator By-Pass Waste	0.00	0.00	0.00
5 Construction & Demolition Debris	0.00	0.00	0.00
6 Treated Biomedical Waste	0.00	0.00	0.00
7 Agricultural Waste	0.00	0.00	0.00
8 Industrial Waste	0.00	0.00	0.00
9 Yard Trash - IN	0.00	0.00	0.00
10 Sewage Sludge	62.51	54.35	93.44
11 Industrial Sludge	0.00	0.00	0.00
12 Water/Air Treatment Sludges	0.00	0.00	0.00
13 Waste Tires - IN	0.00	0.00	0.00
13 Waste Tires - Tires Chipped	0.00	0.00	0.00
Total Tonnage Weighted IN	4,285.55	9,092.84	7,408.73
LESS: Yard Trash Stored/to WTE	0.00	0.00	0.00
Yard Trash Mulched	0.00	0.00	0.00
Yard Trash Mulched & Landscaping	0.00	0.00	0.00
Yard Trash Mulched & to WTE	0.00	0.00	0.00
Waste Tires Stored/Removed	0.00	0.00	0.00
Waste Tires Moved to WTE	0.00	0.00	0.00
Tons Moved to WTE	0.00	0.00	0.00
Total Tonnage Landfilled	4,285.55	9,092.84	7,408.73
Total Tonnage Processed by WTE			
Total Tonnage Received @ Transfer Station			
ASH CELL **	4,223.04	9,038.49	7,315.29
SOLID WASTE CELL	62.51	54.35	93.44

@@ = Yard Waste is Mulched and Provided to the residents Free of Charge as "Landscaping Mulch."

** = Ash Residue is the only Material Disposed of in the Ash Landfill.

PASCO COUNTY UTILITIES - SOLID WASTE

TONNAGE SUMMARY - 2010 FY

Quarter Ending September 30, 2010

MATERIAL	West Pasco Class I Tonnage		
	JULY	AUGUST	SEPTEMBER
1 Household Waste	0.00	0.00	0.00
2 Commercial Waste	0.00	0.00	0.00
3 Ash Residue **	7,407.31	7,295.74	7,326.15
4 Incinerator By-Pass Waste	0.00	0.00	0.00
5 Construction & Demolition Debris	0.00	0.00	0.00
6 Treated Biomedical Waste	0.00	0.00	0.00
7 Agricultural Waste	0.00	0.00	0.00
8 Industrial Waste	0.00	0.00	0.00
9 Yard Trash - IN	0.00	0.00	0.00
10 Sewage Sludge	41.56	134.02	137.44
11 Industrial Sludge	0.00	0.00	0.00
12 Water/Air Treatment Sludges	0.00	0.00	0.00
13 Waste Tires - IN	0.00	0.00	0.00
13 Waste Tires - Tires Chipped	0.00	0.00	0.00
Total Tonnage Weighted IN	7,448.87	7,429.76	7,463.59
LESS: Yard Trash Stored/to WTE	0.00	0.00	0.00
Yard Trash Mulched	0.00	0.00	0.00
Yard Trash Mulched & Landscape/Cover	0.00	0.00	0.00
Yard Trash Mulched & to WTE	0.00	0.00	0.00
Waste Tires Stored/Removed	0.00	0.00	0.00
Waste Tires Moved to WTE	0.00	0.00	0.00
Tons Moved to WTE	0.00	0.00	0.00
Total Tonnage Landfilled	7,448.87	7,429.76	7,463.59
Total Tonnage Processed by WTE			
Total Tonnage Received @ Transfer Station			
ASH CELL **	7,407.31	7,295.74	7,326.15
SOLID WASTE CEL	41.56	134.02	137.44

@@ = Yard Waste is Mulched and Provided to the residents Free o
 ** = Ash Residue is the only Material Disposed of in the Ash Landfill.

PASCO COUNTY UTILITIES - SOLID WASTE
TONNAGE SUMMARY - FY 2011
 Quarter Ending December 31, 2010

<u>MATERIAL</u>	<u>West Pasco Class I Tonnage</u>		
	<u>OCTOBER</u>	<u>NOVEMBER</u>	<u>DECEMBER</u>
1 Household Waste	0.00	0.00	0.00
2 Commercial Waste	0.00	0.00	0.00
3 Ash Residue **	4,160.13	7,310.48	8,022.12
4 Incinerator By-Pass Waste	0.00	0.00	0.00
5 Construction & Demolition Debris	0.00	0.00	0.00
6 Treated Biomedical Waste	0.00	0.00	0.00
7 Agricultural Waste	0.00	0.00	0.00
8 Industrial Waste	0.00	0.00	0.00
9 Yard Trash - IN	0.00	0.00	0.00
10 Sewage Sludge	47.54	87.91	41.53
11 Industrial Sludge	0.00	0.00	0.00
12 Water/Air Treatment Sludges	0.00	0.00	0.00
13 Waste Tires - IN	0.00	0.00	0.00
13 Waste Tires - Tires Chipped	0.00	0.00	0.00

Total Tonnage Weighted IN

4,207.67 7,398.39 8,063.65

- LESS: Yard Trash Stored/to WTE
- Yard Trash Mulched
- Yard Trash Mulched & Landscape/Cover
- Yard Trash Mulched & to WTE
- Waste Tires Stored/Removed
- Waste Tires Moved to WTE
- Tons Moved to WTE

0.00 0.00 0.00
 0.00 0.00 0.00
 0.00 0.00 0.00
 0.00 0.00 0.00
 0.00 0.00 0.00
 0.00 0.00 0.00
 0.00 0.00 0.00

Total Tonnage Landfilled

4,207.67 7,398.39 8,063.65

Total Tonnage Processed by WTE

**Total Tonnage Received @
 Transfer Station**

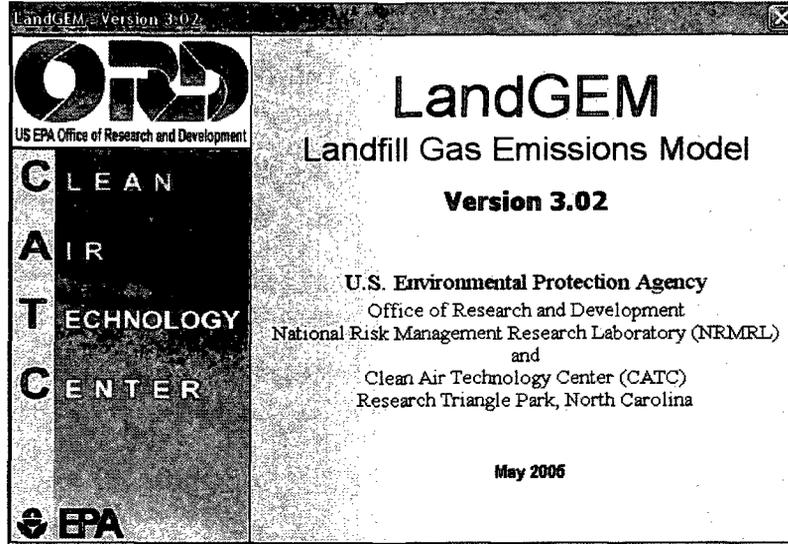
ASH CELL **	4,160.13	7,310.48	8,022.12
SOLID WASTE (47.54	87.91	41.53

@@ = Yard Waste is Mulched and Provided to the residents Fr
 ** = Ash Residue is the only Material Disposed of in the Ash Lar

Attachment-2

NMOC Emission Estimate (2010) -

USEPA LandGEM version 3.02



Summary Report

Landfill Name or Identifier: Pasco County - Spring Hill, Florida

Date: Wednesday, April 27, 2011

Description/Comments:

About LandGEM:

First-Order Decomposition Rate Equation:

$$Q_{CH_4} = \sum_{i=1}^n \sum_{j=0.1}^1 kL_o \left(\frac{M_i}{10} \right) e^{-kt_{ij}}$$

Where,

Q_{CH_4} = annual methane generation in the year of the calculation ($m^3/year$)

i = 1-year time increment

n = (year of the calculation) - (initial year of waste acceptance)

j = 0.1-year time increment

k = methane generation rate ($year^{-1}$)

L_o = potential methane generation capacity (m^3/Ma)

M_i = mass of waste accepted in the i^{th} year (Ma)

t_{ij} = age of the j^{th} section of waste mass M_i accepted in the i^{th} year (decimal years . e.g., 3.2 years)

LandGEM is based on a first-order decomposition rate equation for quantifying emissions from the decomposition of landfilled waste in municipal solid waste (MSW) landfills. The software provides a relatively simple approach to estimating landfill gas emissions. Model defaults are based on empirical data from U.S. landfills. Field test data can also be used in place of model defaults when available. Further guidance on EPA test methods, Clean Air Act (CAA) regulations, and other guidance regarding landfill gas emissions and control technology requirements can be found at <http://www.epa.gov/ttnatw01/landfill/landfipg.html>.

LandGEM is considered a screening tool — the better the input data, the better the estimates. Often, there are limitations with the available data regarding waste quantity and composition, variation in design and operating practices over time, and changes occurring over time that impact the emissions potential. Changes to landfill operation, such as operating under wet conditions through leachate recirculation or other liquid additions, will result in generating more gas at a faster rate. Defaults for estimating emissions for this type of operation are being developed to include in LandGEM along with defaults for conventional landfills (no leachate or liquid additions) for developing emission inventories and determining CAA applicability. Refer to the Web site identified above for future updates.

Input Review

LANDFILL CHARACTERISTICS

Landfill Open Year **1991**
 Landfill Closure Year (with 80-year limit) **2011**
 Actual Closure Year (without limit) **2011**
 Have Model Calculate Closure Year? **No**
 Waste Design Capacity **839,360** *short tons*

MODEL PARAMETERS

Methane Generation Rate, k **0.050** *year⁻¹*
 Potential Methane Generation Capacity, L₀ **170** *m³/Mg*
 NMOC Concentration **36** *ppmv as hexane*
 Methane Content **50** *% by volume*

GASES / POLLUTANTS SELECTED

Gas / Pollutant #1: **Total landfill gas**
 Gas / Pollutant #2: **NMOC**
 Gas / Pollutant #3: **Methane**
 Gas / Pollutant #4: **Carbon dioxide**

WASTE ACCEPTANCE RATES

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	(short tons/year)	(Mg)	(short tons)
1991	0	0	0	0
1992	0	0	0	0
1993	0	0	0	0
1994	0	0	0	0
1995	0	0	0	0
1996	0	0	0	0
1997	4,925	5,418	0	0
1998	11,875	13,062	4,925	5,418
1999	18,616	20,478	16,800	18,480
2000	25,291	27,820	35,416	38,958
2001	12,600	13,860	60,707	66,778
2002	11,789	12,968	73,307	80,638
2003	64	70	85,096	93,605
2004	17,640	19,404	85,160	93,676
2005	47,629	52,392	102,799	113,079
2006	55,039	60,543	150,428	165,471
2007	32,083	35,291	205,467	226,014
2008	4,886	5,374	237,550	261,305
2009	1,793	1,972	242,436	266,679
2010	640	704	244,228	268,651
2011	0	0	244,869	269,356
2012	0	0	244,869	269,356
2013	0	0	244,869	269,356
2014	0	0	244,869	269,356
2015	0	0	244,869	269,356
2016	0	0	244,869	269,356
2017	0	0	244,869	269,356
2018	0	0	244,869	269,356
2019	0	0	244,869	269,356
2020	0	0	244,869	269,356
2021	0	0	244,869	269,356
2022	0	0	244,869	269,356
2023	0	0	244,869	269,356
2024	0	0	244,869	269,356
2025	0	0	244,869	269,356
2026	0	0	244,869	269,356
2027	0	0	244,869	269,356
2028	0	0	244,869	269,356
2029	0	0	244,869	269,356
2030	0	0	244,869	269,356

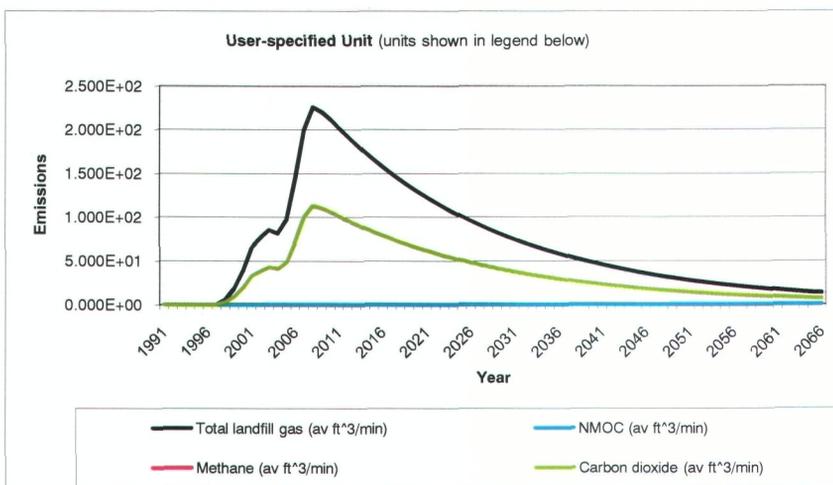
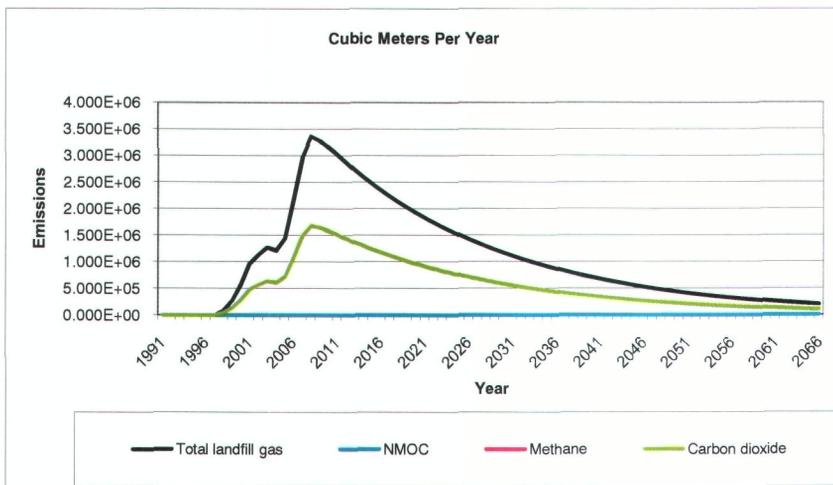
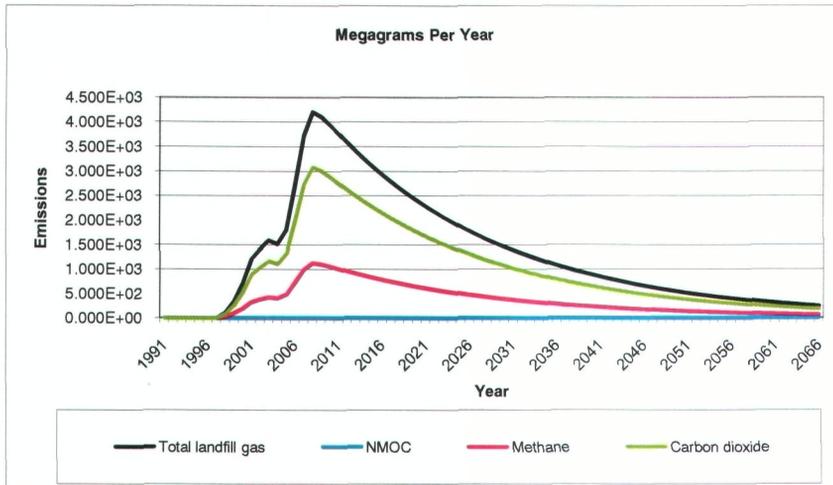
WASTE ACCEPTANCE RATES (Continued)

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	(short tons/year)	(Mg)	(short tons)
2031	0	0	244,869	269,356
2032	0	0	244,869	269,356
2033	0	0	244,869	269,356
2034	0	0	244,869	269,356
2035	0	0	244,869	269,356
2036	0	0	244,869	269,356
2037	0	0	244,869	269,356
2038	0	0	244,869	269,356
2039	0	0	244,869	269,356
2040	0	0	244,869	269,356
2041	0	0	244,869	269,356
2042	0	0	244,869	269,356
2043	0	0	244,869	269,356
2044	0	0	244,869	269,356
2045	0	0	244,869	269,356
2046	0	0	244,869	269,356
2047	0	0	244,869	269,356
2048	0	0	244,869	269,356
2049	0	0	244,869	269,356
2050	0	0	244,869	269,356
2051	0	0	244,869	269,356
2052	0	0	244,869	269,356
2053	0	0	244,869	269,356
2054	0	0	244,869	269,356
2055	0	0	244,869	269,356
2056	0	0	244,869	269,356
2057	0	0	244,869	269,356
2058	0	0	244,869	269,356
2059	0	0	244,869	269,356
2060	0	0	244,869	269,356
2061	0	0	244,869	269,356
2062	0	0	244,869	269,356
2063	0	0	244,869	269,356
2064	0	0	244,869	269,356
2065	0	0	244,869	269,356
2066	0	0	244,869	269,356
2067	0	0	244,869	269,356
2068	0	0	244,869	269,356
2069	0	0	244,869	269,356
2070	0	0	244,869	269,356

Pollutant Parameters**Gas / Pollutant Default Parameters:****User-specified Pollutant Parameters:**

	Compound	Concentration (ppmv)	Molecular Weight	Concentration (ppmv)	Molecular Weight
Gases	Total landfill gas		0.00		
	Methane		16.04		
	Carbon dioxide		44.01		
	NMOC	4,000	86.18		
Pollutants	1,1,1-Trichloroethane (methyl chloroform) - HAP	0.48	133.41		
	1,1,1,2,2- Tetrachloroethane - HAP/VOC	1.1	167.85		
	1,1-Dichloroethane (ethylidene dichloride) - HAP/VOC	2.4	98.97		
	1,1-Dichloroethene (vinylidene chloride) - HAP/VOC	0.20	96.94		
	1,2-Dichloroethane (ethylene dichloride) - HAP/VOC	0.41	98.96		
	1,2-Dichloropropane (propylene dichloride) - HAP/VOC	0.18	112.99		
	2-Propanol (isopropyl alcohol) - VOC	50	60.11		
	Acetone	7.0	58.08		
	Acrylonitrile - HAP/VOC	6.3	53.06		
	Benzene - No or Unknown Co-disposal - HAP/VOC	1.9	78.11		
	Benzene - Co-disposal - HAP/VOC	11	78.11		
	Bromodichloromethane - VOC	3.1	163.83		
	Butane - VOC	5.0	58.12		
	Carbon disulfide - HAP/VOC	0.58	76.13		
	Carbon monoxide	140	28.01		
	Carbon tetrachloride - HAP/VOC	4.0E-03	153.84		
	Carbonyl sulfide - HAP/VOC	0.49	60.07		
	Chlorobenzene - HAP/VOC	0.25	112.56		
	Chlorodifluoromethane	1.3	86.47		
	Chloroethane (ethyl chloride) - HAP/VOC	1.3	64.52		
	Chloroform - HAP/VOC	0.03	119.39		
	Chloromethane - VOC	1.2	50.49		
	Dichlorobenzene - (HAP for para isomer/VOC)	0.21	147		
	Dichlorodifluoromethane	16	120.91		
	Dichlorofluoromethane - VOC	2.6	102.92		
	Dichloromethane (methylene chloride) - HAP	14	84.94		
	Dimethyl sulfide (methyl sulfide) - VOC	7.8	62.13		
	Ethane	890	30.07		
	Ethanol - VOC	27	46.08		

Graphs



Results

Year	Total landfill gas			NMOC		
	(Mg/year)	(m ³ /year)	(av ft ³ /min)	(Mg/year)	(m ³ /year)	(av ft ³ /min)
1991	0	0	0	0	0	0
1992	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1993	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1994	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1995	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1996	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1997	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1998	1.022E+02	8.188E+04	5.501E+00	1.045E-02	2.915E+00	1.958E-04
1999	3.438E+02	2.753E+05	1.850E+01	3.513E-02	9.800E+00	6.585E-04
2000	7.135E+02	5.713E+05	3.839E+01	7.291E-02	2.034E+01	1.367E-03
2001	1.204E+03	9.639E+05	6.476E+01	1.230E-01	3.431E+01	2.306E-03
2002	1.407E+03	1.126E+06	7.568E+01	1.437E-01	4.010E+01	2.694E-03
2003	1.583E+03	1.267E+06	8.515E+01	1.617E-01	4.512E+01	3.031E-03
2004	1.507E+03	1.207E+06	8.107E+01	1.540E-01	4.296E+01	2.886E-03
2005	1.800E+03	1.441E+06	9.682E+01	1.839E-01	5.130E+01	3.447E-03
2006	2.701E+03	2.162E+06	1.453E+02	2.759E-01	7.698E+01	5.173E-03
2007	3.711E+03	2.972E+06	1.997E+02	3.792E-01	1.058E+02	7.109E-03
2008	4.196E+03	3.360E+06	2.258E+02	4.288E-01	1.196E+02	8.038E-03
2009	4.093E+03	3.278E+06	2.202E+02	4.183E-01	1.167E+02	7.840E-03
2010	3.931E+03	3.148E+06	2.115E+02	4.017E-01	1.121E+02	7.529E-03
2011	3.752E+03	3.005E+06	2.019E+02	3.834E-01	1.070E+02	7.187E-03
2012	3.569E+03	2.858E+06	1.920E+02	3.647E-01	1.018E+02	6.837E-03
2013	3.395E+03	2.719E+06	1.827E+02	3.469E-01	9.679E+01	6.503E-03
2014	3.230E+03	2.586E+06	1.738E+02	3.300E-01	9.207E+01	6.186E-03
2015	3.072E+03	2.460E+06	1.653E+02	3.139E-01	8.758E+01	5.884E-03
2016	2.922E+03	2.340E+06	1.572E+02	2.986E-01	8.331E+01	5.597E-03
2017	2.780E+03	2.226E+06	1.496E+02	2.841E-01	7.924E+01	5.324E-03
2018	2.644E+03	2.117E+06	1.423E+02	2.702E-01	7.538E+01	5.065E-03
2019	2.515E+03	2.014E+06	1.353E+02	2.570E-01	7.170E+01	4.818E-03
2020	2.393E+03	1.916E+06	1.287E+02	2.445E-01	6.821E+01	4.583E-03
2021	2.276E+03	1.822E+06	1.225E+02	2.326E-01	6.488E+01	4.359E-03
2022	2.165E+03	1.734E+06	1.165E+02	2.212E-01	6.172E+01	4.147E-03
2023	2.059E+03	1.649E+06	1.108E+02	2.104E-01	5.871E+01	3.944E-03
2024	1.959E+03	1.569E+06	1.054E+02	2.002E-01	5.584E+01	3.752E-03
2025	1.863E+03	1.492E+06	1.003E+02	1.904E-01	5.312E+01	3.569E-03
2026	1.773E+03	1.419E+06	9.537E+01	1.811E-01	5.053E+01	3.395E-03
2027	1.686E+03	1.350E+06	9.071E+01	1.723E-01	4.806E+01	3.229E-03
2028	1.604E+03	1.284E+06	8.629E+01	1.639E-01	4.572E+01	3.072E-03
2029	1.526E+03	1.222E+06	8.208E+01	1.559E-01	4.349E+01	2.922E-03
2030	1.451E+03	1.162E+06	7.808E+01	1.483E-01	4.137E+01	2.780E-03
2031	1.380E+03	1.105E+06	7.427E+01	1.411E-01	3.935E+01	2.644E-03
2032	1.313E+03	1.051E+06	7.065E+01	1.342E-01	3.743E+01	2.515E-03
2033	1.249E+03	1.000E+06	6.720E+01	1.276E-01	3.561E+01	2.392E-03
2034	1.188E+03	9.514E+05	6.393E+01	1.214E-01	3.387E+01	2.276E-03
2035	1.130E+03	9.050E+05	6.081E+01	1.155E-01	3.222E+01	2.165E-03
2036	1.075E+03	8.609E+05	5.784E+01	1.099E-01	3.065E+01	2.059E-03
2037	1.023E+03	8.189E+05	5.502E+01	1.045E-01	2.915E+01	1.959E-03
2038	9.728E+02	7.790E+05	5.234E+01	9.940E-02	2.773E+01	1.863E-03
2039	9.253E+02	7.410E+05	4.979E+01	9.455E-02	2.638E+01	1.772E-03
2040	8.802E+02	7.048E+05	4.736E+01	8.994E-02	2.509E+01	1.686E-03

Results (Continued)

Year	Total landfill gas			NMOC		
	(Mg/year)	(m ³ /year)	(av ft ³ /min)	(Mg/year)	(m ³ /year)	(av ft ³ /min)
2041	8.373E+02	6.705E+05	4.505E+01	8.555E-02	2.387E+01	1.604E-03
2042	7.964E+02	6.378E+05	4.285E+01	8.138E-02	2.270E+01	1.525E-03
2043	7.576E+02	6.066E+05	4.076E+01	7.741E-02	2.160E+01	1.451E-03
2044	7.206E+02	5.771E+05	3.877E+01	7.364E-02	2.054E+01	1.380E-03
2045	6.855E+02	5.489E+05	3.688E+01	7.005E-02	1.954E+01	1.313E-03
2046	6.521E+02	5.221E+05	3.508E+01	6.663E-02	1.859E+01	1.249E-03
2047	6.203E+02	4.967E+05	3.337E+01	6.338E-02	1.768E+01	1.188E-03
2048	5.900E+02	4.725E+05	3.174E+01	6.029E-02	1.682E+01	1.130E-03
2049	5.612E+02	4.494E+05	3.020E+01	5.735E-02	1.600E+01	1.075E-03
2050	5.339E+02	4.275E+05	2.872E+01	5.455E-02	1.522E+01	1.023E-03
2051	5.078E+02	4.066E+05	2.732E+01	5.189E-02	1.448E+01	9.727E-04
2052	4.831E+02	3.868E+05	2.599E+01	4.936E-02	1.377E+01	9.252E-04
2053	4.595E+02	3.680E+05	2.472E+01	4.695E-02	1.310E+01	8.801E-04
2054	4.371E+02	3.500E+05	2.352E+01	4.466E-02	1.246E+01	8.372E-04
2055	4.158E+02	3.329E+05	2.237E+01	4.248E-02	1.185E+01	7.964E-04
2056	3.955E+02	3.167E+05	2.128E+01	4.041E-02	1.127E+01	7.575E-04
2057	3.762E+02	3.013E+05	2.024E+01	3.844E-02	1.072E+01	7.206E-04
2058	3.579E+02	2.866E+05	1.925E+01	3.657E-02	1.020E+01	6.854E-04
2059	3.404E+02	2.726E+05	1.831E+01	3.478E-02	9.704E+00	6.520E-04
2060	3.238E+02	2.593E+05	1.742E+01	3.309E-02	9.231E+00	6.202E-04
2061	3.080E+02	2.466E+05	1.657E+01	3.147E-02	8.781E+00	5.900E-04
2062	2.930E+02	2.346E+05	1.576E+01	2.994E-02	8.352E+00	5.612E-04
2063	2.787E+02	2.232E+05	1.500E+01	2.848E-02	7.945E+00	5.338E-04
2064	2.651E+02	2.123E+05	1.426E+01	2.709E-02	7.558E+00	5.078E-04
2065	2.522E+02	2.019E+05	1.357E+01	2.577E-02	7.189E+00	4.830E-04
2066	2.399E+02	1.921E+05	1.291E+01	2.451E-02	6.838E+00	4.595E-04
2067	2.282E+02	1.827E+05	1.228E+01	2.332E-02	6.505E+00	4.371E-04
2068	2.171E+02	1.738E+05	1.168E+01	2.218E-02	6.188E+00	4.157E-04
2069	2.065E+02	1.653E+05	1.111E+01	2.110E-02	5.886E+00	3.955E-04
2070	1.964E+02	1.573E+05	1.057E+01	2.007E-02	5.599E+00	3.762E-04
2071	1.868E+02	1.496E+05	1.005E+01	1.909E-02	5.326E+00	3.578E-04
2072	1.777E+02	1.423E+05	9.561E+00	1.816E-02	5.066E+00	3.404E-04
2073	1.690E+02	1.354E+05	9.095E+00	1.727E-02	4.819E+00	3.238E-04
2074	1.608E+02	1.288E+05	8.651E+00	1.643E-02	4.584E+00	3.080E-04
2075	1.530E+02	1.225E+05	8.229E+00	1.563E-02	4.360E+00	2.930E-04
2076	1.455E+02	1.165E+05	7.828E+00	1.487E-02	4.148E+00	2.787E-04
2077	1.384E+02	1.108E+05	7.446E+00	1.414E-02	3.945E+00	2.651E-04
2078	1.317E+02	1.054E+05	7.083E+00	1.345E-02	3.753E+00	2.522E-04
2079	1.252E+02	1.003E+05	6.738E+00	1.280E-02	3.570E+00	2.399E-04
2080	1.191E+02	9.539E+04	6.409E+00	1.217E-02	3.396E+00	2.282E-04
2081	1.133E+02	9.074E+04	6.097E+00	1.158E-02	3.230E+00	2.170E-04
2082	1.078E+02	8.631E+04	5.799E+00	1.101E-02	3.073E+00	2.065E-04
2083	1.025E+02	8.210E+04	5.516E+00	1.048E-02	2.923E+00	1.964E-04
2084	9.753E+01	7.810E+04	5.247E+00	9.966E-03	2.780E+00	1.868E-04
2085	9.277E+01	7.429E+04	4.991E+00	9.480E-03	2.645E+00	1.777E-04
2086	8.825E+01	7.066E+04	4.748E+00	9.017E-03	2.516E+00	1.690E-04
2087	8.394E+01	6.722E+04	4.516E+00	8.578E-03	2.393E+00	1.608E-04
2088	7.985E+01	6.394E+04	4.296E+00	8.159E-03	2.276E+00	1.529E-04
2089	7.596E+01	6.082E+04	4.087E+00	7.761E-03	2.165E+00	1.455E-04
2090	7.225E+01	5.786E+04	3.887E+00	7.383E-03	2.060E+00	1.384E-04
2091	6.873E+01	5.503E+04	3.698E+00	7.023E-03	1.959E+00	1.316E-04

Results (Continued)

Year	Total landfill gas			NMOC		
	(Mg/year)	(m ³ /year)	(av ft ³ /min)	(Mg/year)	(m ³ /year)	(av ft ³ /min)
2092	6.538E+01	5.235E+04	3.517E+00	6.680E-03	1.864E+00	1.252E-04
2093	6.219E+01	4.980E+04	3.346E+00	6.354E-03	1.773E+00	1.191E-04
2094	5.915E+01	4.737E+04	3.183E+00	6.045E-03	1.686E+00	1.133E-04
2095	5.627E+01	4.506E+04	3.027E+00	5.750E-03	1.604E+00	1.078E-04
2096	5.353E+01	4.286E+04	2.880E+00	5.469E-03	1.526E+00	1.025E-04
2097	5.091E+01	4.077E+04	2.739E+00	5.203E-03	1.451E+00	9.752E-05
2098	4.843E+01	3.878E+04	2.606E+00	4.949E-03	1.381E+00	9.276E-05
2099	4.607E+01	3.689E+04	2.479E+00	4.707E-03	1.313E+00	8.824E-05
2100	4.382E+01	3.509E+04	2.358E+00	4.478E-03	1.249E+00	8.394E-05
2101	4.169E+01	3.338E+04	2.243E+00	4.259E-03	1.188E+00	7.984E-05
2102	3.965E+01	3.175E+04	2.133E+00	4.052E-03	1.130E+00	7.595E-05
2103	3.772E+01	3.020E+04	2.029E+00	3.854E-03	1.075E+00	7.225E-05
2104	3.588E+01	2.873E+04	1.930E+00	3.666E-03	1.023E+00	6.872E-05
2105	3.413E+01	2.733E+04	1.836E+00	3.487E-03	9.729E-01	6.537E-05
2106	3.246E+01	2.600E+04	1.747E+00	3.317E-03	9.255E-01	6.218E-05
2107	3.088E+01	2.473E+04	1.661E+00	3.156E-03	8.803E-01	5.915E-05
2108	2.938E+01	2.352E+04	1.580E+00	3.002E-03	8.374E-01	5.626E-05
2109	2.794E+01	2.238E+04	1.503E+00	2.855E-03	7.966E-01	5.352E-05
2110	2.658E+01	2.128E+04	1.430E+00	2.716E-03	7.577E-01	5.091E-05
2111	2.528E+01	2.025E+04	1.360E+00	2.584E-03	7.208E-01	4.843E-05
2112	2.405E+01	1.926E+04	1.294E+00	2.458E-03	6.856E-01	4.607E-05
2113	2.288E+01	1.832E+04	1.231E+00	2.338E-03	6.522E-01	4.382E-05
2114	2.176E+01	1.743E+04	1.171E+00	2.224E-03	6.204E-01	4.168E-05
2115	2.070E+01	1.658E+04	1.114E+00	2.115E-03	5.901E-01	3.965E-05
2116	1.969E+01	1.577E+04	1.059E+00	2.012E-03	5.613E-01	3.772E-05
2117	1.873E+01	1.500E+04	1.008E+00	1.914E-03	5.339E-01	3.588E-05
2118	1.782E+01	1.427E+04	9.586E-01	1.821E-03	5.079E-01	3.413E-05
2119	1.695E+01	1.357E+04	9.118E-01	1.732E-03	4.831E-01	3.246E-05
2120	1.612E+01	1.291E+04	8.674E-01	1.647E-03	4.596E-01	3.088E-05
2121	1.534E+01	1.228E+04	8.251E-01	1.567E-03	4.372E-01	2.937E-05
2122	1.459E+01	1.168E+04	7.848E-01	1.491E-03	4.158E-01	2.794E-05
2123	1.388E+01	1.111E+04	7.466E-01	1.418E-03	3.956E-01	2.658E-05
2124	1.320E+01	1.057E+04	7.101E-01	1.349E-03	3.763E-01	2.528E-05
2125	1.256E+01	1.005E+04	6.755E-01	1.283E-03	3.579E-01	2.405E-05
2126	1.194E+01	9.563E+03	6.426E-01	1.220E-03	3.405E-01	2.288E-05
2127	1.136E+01	9.097E+03	6.112E-01	1.161E-03	3.239E-01	2.176E-05
2128	1.081E+01	8.653E+03	5.814E-01	1.104E-03	3.081E-01	2.070E-05
2129	1.028E+01	8.231E+03	5.531E-01	1.050E-03	2.930E-01	1.969E-05
2130	9.778E+00	7.830E+03	5.261E-01	9.992E-04	2.787E-01	1.873E-05
2131	9.301E+00	7.448E+03	5.004E-01	9.504E-04	2.652E-01	1.782E-05

Results (Continued)

Year	Methane			Carbon dioxide		
	(Mg/year)	(m ³ /year)	(av ft ³ /min)	(Mg/year)	(m ³ /year)	(av ft ³ /min)
1991	0	0	0	0	0	0
1992	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1993	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1994	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1995	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1996	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1997	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1998	2.731E+01	4.094E+04	2.751E+00	7.494E+01	4.094E+04	2.751E+00
1999	9.183E+01	1.376E+05	9.248E+00	2.520E+02	1.376E+05	9.248E+00
2000	1.906E+02	2.857E+05	1.919E+01	5.229E+02	2.857E+05	1.919E+01
2001	3.215E+02	4.819E+05	3.238E+01	8.822E+02	4.819E+05	3.238E+01
2002	3.757E+02	5.632E+05	3.784E+01	1.031E+03	5.632E+05	3.784E+01
2003	4.228E+02	6.337E+05	4.258E+01	1.160E+03	6.337E+05	4.258E+01
2004	4.025E+02	6.033E+05	4.054E+01	1.104E+03	6.033E+05	4.054E+01
2005	4.807E+02	7.205E+05	4.841E+01	1.319E+03	7.205E+05	4.841E+01
2006	7.213E+02	1.081E+06	7.265E+01	1.979E+03	1.081E+06	7.265E+01
2007	9.914E+02	1.486E+06	9.984E+01	2.720E+03	1.486E+06	9.984E+01
2008	1.121E+03	1.680E+06	1.129E+02	3.076E+03	1.680E+06	1.129E+02
2009	1.093E+03	1.639E+06	1.101E+02	3.000E+03	1.639E+06	1.101E+02
2010	1.050E+03	1.574E+06	1.057E+02	2.881E+03	1.574E+06	1.057E+02
2011	1.002E+03	1.502E+06	1.009E+02	2.750E+03	1.502E+06	1.009E+02
2012	9.534E+02	1.429E+06	9.602E+01	2.616E+03	1.429E+06	9.602E+01
2013	9.069E+02	1.359E+06	9.134E+01	2.488E+03	1.359E+06	9.134E+01
2014	8.627E+02	1.293E+06	8.688E+01	2.367E+03	1.293E+06	8.688E+01
2015	8.206E+02	1.230E+06	8.265E+01	2.252E+03	1.230E+06	8.265E+01
2016	7.806E+02	1.170E+06	7.862E+01	2.142E+03	1.170E+06	7.862E+01
2017	7.425E+02	1.113E+06	7.478E+01	2.037E+03	1.113E+06	7.478E+01
2018	7.063E+02	1.059E+06	7.113E+01	1.938E+03	1.059E+06	7.113E+01
2019	6.719E+02	1.007E+06	6.767E+01	1.843E+03	1.007E+06	6.767E+01
2020	6.391E+02	9.580E+05	6.437E+01	1.754E+03	9.580E+05	6.437E+01
2021	6.079E+02	9.112E+05	6.123E+01	1.668E+03	9.112E+05	6.123E+01
2022	5.783E+02	8.668E+05	5.824E+01	1.587E+03	8.668E+05	5.824E+01
2023	5.501E+02	8.245E+05	5.540E+01	1.509E+03	8.245E+05	5.540E+01
2024	5.233E+02	7.843E+05	5.270E+01	1.436E+03	7.843E+05	5.270E+01
2025	4.977E+02	7.461E+05	5.013E+01	1.366E+03	7.461E+05	5.013E+01
2026	4.735E+02	7.097E+05	4.768E+01	1.299E+03	7.097E+05	4.768E+01
2027	4.504E+02	6.751E+05	4.536E+01	1.236E+03	6.751E+05	4.536E+01
2028	4.284E+02	6.421E+05	4.315E+01	1.175E+03	6.421E+05	4.315E+01
2029	4.075E+02	6.108E+05	4.104E+01	1.118E+03	6.108E+05	4.104E+01
2030	3.876E+02	5.810E+05	3.904E+01	1.064E+03	5.810E+05	3.904E+01
2031	3.687E+02	5.527E+05	3.714E+01	1.012E+03	5.527E+05	3.714E+01
2032	3.507E+02	5.257E+05	3.532E+01	9.624E+02	5.257E+05	3.532E+01
2033	3.336E+02	5.001E+05	3.360E+01	9.154E+02	5.001E+05	3.360E+01
2034	3.174E+02	4.757E+05	3.196E+01	8.708E+02	4.757E+05	3.196E+01
2035	3.019E+02	4.525E+05	3.040E+01	8.283E+02	4.525E+05	3.040E+01
2036	2.872E+02	4.304E+05	2.892E+01	7.879E+02	4.304E+05	2.892E+01
2037	2.732E+02	4.094E+05	2.751E+01	7.495E+02	4.094E+05	2.751E+01
2038	2.598E+02	3.895E+05	2.617E+01	7.129E+02	3.895E+05	2.617E+01
2039	2.472E+02	3.705E+05	2.489E+01	6.782E+02	3.705E+05	2.489E+01
2040	2.351E+02	3.524E+05	2.368E+01	6.451E+02	3.524E+05	2.368E+01

Results (Continued)

Year	Methane			Carbon dioxide		
	(Mg/year)	(m ³ /year)	(av ft ³ /min)	(Mg/year)	(m ³ /year)	(av ft ³ /min)
2041	2.236E+02	3.352E+05	2.252E+01	6.136E+02	3.352E+05	2.252E+01
2042	2.127E+02	3.189E+05	2.143E+01	5.837E+02	3.189E+05	2.143E+01
2043	2.024E+02	3.033E+05	2.038E+01	5.552E+02	3.033E+05	2.038E+01
2044	1.925E+02	2.885E+05	1.939E+01	5.282E+02	2.885E+05	1.939E+01
2045	1.831E+02	2.745E+05	1.844E+01	5.024E+02	2.745E+05	1.844E+01
2046	1.742E+02	2.611E+05	1.754E+01	4.779E+02	2.611E+05	1.754E+01
2047	1.657E+02	2.483E+05	1.669E+01	4.546E+02	2.483E+05	1.669E+01
2048	1.576E+02	2.362E+05	1.587E+01	4.324E+02	2.362E+05	1.587E+01
2049	1.499E+02	2.247E+05	1.510E+01	4.113E+02	2.247E+05	1.510E+01
2050	1.426E+02	2.137E+05	1.436E+01	3.913E+02	2.137E+05	1.436E+01
2051	1.356E+02	2.033E+05	1.366E+01	3.722E+02	2.033E+05	1.366E+01
2052	1.290E+02	1.934E+05	1.300E+01	3.540E+02	1.934E+05	1.300E+01
2053	1.227E+02	1.840E+05	1.236E+01	3.368E+02	1.840E+05	1.236E+01
2054	1.168E+02	1.750E+05	1.176E+01	3.203E+02	1.750E+05	1.176E+01
2055	1.111E+02	1.665E+05	1.118E+01	3.047E+02	1.665E+05	1.118E+01
2056	1.056E+02	1.583E+05	1.064E+01	2.899E+02	1.583E+05	1.064E+01
2057	1.005E+02	1.506E+05	1.012E+01	2.757E+02	1.506E+05	1.012E+01
2058	9.559E+01	1.433E+05	9.627E+00	2.623E+02	1.433E+05	9.627E+00
2059	9.093E+01	1.363E+05	9.157E+00	2.495E+02	1.363E+05	9.157E+00
2060	8.649E+01	1.296E+05	8.711E+00	2.373E+02	1.296E+05	8.711E+00
2061	8.227E+01	1.233E+05	8.286E+00	2.257E+02	1.233E+05	8.286E+00
2062	7.826E+01	1.173E+05	7.882E+00	2.147E+02	1.173E+05	7.882E+00
2063	7.444E+01	1.116E+05	7.498E+00	2.043E+02	1.116E+05	7.498E+00
2064	7.081E+01	1.061E+05	7.132E+00	1.943E+02	1.061E+05	7.132E+00
2065	6.736E+01	1.010E+05	6.784E+00	1.848E+02	1.010E+05	6.784E+00
2066	6.408E+01	9.604E+04	6.453E+00	1.758E+02	9.604E+04	6.453E+00
2067	6.095E+01	9.136E+04	6.138E+00	1.672E+02	9.136E+04	6.138E+00
2068	5.798E+01	8.690E+04	5.839E+00	1.591E+02	8.690E+04	5.839E+00
2069	5.515E+01	8.267E+04	5.554E+00	1.513E+02	8.267E+04	5.554E+00
2070	5.246E+01	7.863E+04	5.283E+00	1.439E+02	7.863E+04	5.283E+00
2071	4.990E+01	7.480E+04	5.026E+00	1.369E+02	7.480E+04	5.026E+00
2072	4.747E+01	7.115E+04	4.781E+00	1.302E+02	7.115E+04	4.781E+00
2073	4.515E+01	6.768E+04	4.547E+00	1.239E+02	6.768E+04	4.547E+00
2074	4.295E+01	6.438E+04	4.326E+00	1.178E+02	6.438E+04	4.326E+00
2075	4.086E+01	6.124E+04	4.115E+00	1.121E+02	6.124E+04	4.115E+00
2076	3.886E+01	5.825E+04	3.914E+00	1.066E+02	5.825E+04	3.914E+00
2077	3.697E+01	5.541E+04	3.723E+00	1.014E+02	5.541E+04	3.723E+00
2078	3.517E+01	5.271E+04	3.542E+00	9.649E+01	5.271E+04	3.542E+00
2079	3.345E+01	5.014E+04	3.369E+00	9.178E+01	5.014E+04	3.369E+00
2080	3.182E+01	4.769E+04	3.205E+00	8.730E+01	4.769E+04	3.205E+00
2081	3.027E+01	4.537E+04	3.048E+00	8.305E+01	4.537E+04	3.048E+00
2082	2.879E+01	4.316E+04	2.900E+00	7.900E+01	4.316E+04	2.900E+00
2083	2.739E+01	4.105E+04	2.758E+00	7.514E+01	4.105E+04	2.758E+00
2084	2.605E+01	3.905E+04	2.624E+00	7.148E+01	3.905E+04	2.624E+00
2085	2.478E+01	3.714E+04	2.496E+00	6.799E+01	3.714E+04	2.496E+00
2086	2.357E+01	3.533E+04	2.374E+00	6.468E+01	3.533E+04	2.374E+00
2087	2.242E+01	3.361E+04	2.258E+00	6.152E+01	3.361E+04	2.258E+00
2088	2.133E+01	3.197E+04	2.148E+00	5.852E+01	3.197E+04	2.148E+00
2089	2.029E+01	3.041E+04	2.043E+00	5.567E+01	3.041E+04	2.043E+00
2090	1.930E+01	2.893E+04	1.944E+00	5.295E+01	2.893E+04	1.944E+00
2091	1.836E+01	2.752E+04	1.849E+00	5.037E+01	2.752E+04	1.849E+00

Results (Continued)

Year	Methane			Carbon dioxide		
	(Mg/year)	(m ³ /year)	(av ft ³ /min)	(Mg/year)	(m ³ /year)	(av ft ³ /min)
2092	1.746E+01	2.617E+04	1.759E+00	4.791E+01	2.617E+04	1.759E+00
2093	1.661E+01	2.490E+04	1.673E+00	4.558E+01	2.490E+04	1.673E+00
2094	1.580E+01	2.368E+04	1.591E+00	4.335E+01	2.368E+04	1.591E+00
2095	1.503E+01	2.253E+04	1.514E+00	4.124E+01	2.253E+04	1.514E+00
2096	1.430E+01	2.143E+04	1.440E+00	3.923E+01	2.143E+04	1.440E+00
2097	1.360E+01	2.039E+04	1.370E+00	3.731E+01	2.039E+04	1.370E+00
2098	1.294E+01	1.939E+04	1.303E+00	3.549E+01	1.939E+04	1.303E+00
2099	1.231E+01	1.845E+04	1.239E+00	3.376E+01	1.845E+04	1.239E+00
2100	1.171E+01	1.755E+04	1.179E+00	3.212E+01	1.755E+04	1.179E+00
2101	1.113E+01	1.669E+04	1.121E+00	3.055E+01	1.669E+04	1.121E+00
2102	1.059E+01	1.588E+04	1.067E+00	2.906E+01	1.588E+04	1.067E+00
2103	1.008E+01	1.510E+04	1.015E+00	2.764E+01	1.510E+04	1.015E+00
2104	9.584E+00	1.437E+04	9.652E-01	2.630E+01	1.437E+04	9.652E-01
2105	9.116E+00	1.366E+04	9.181E-01	2.501E+01	1.366E+04	9.181E-01
2106	8.672E+00	1.300E+04	8.733E-01	2.379E+01	1.300E+04	8.733E-01
2107	8.249E+00	1.236E+04	8.307E-01	2.263E+01	1.236E+04	8.307E-01
2108	7.846E+00	1.176E+04	7.902E-01	2.153E+01	1.176E+04	7.902E-01
2109	7.464E+00	1.119E+04	7.517E-01	2.048E+01	1.119E+04	7.517E-01
2110	7.100E+00	1.064E+04	7.150E-01	1.948E+01	1.064E+04	7.150E-01
2111	6.753E+00	1.012E+04	6.802E-01	1.853E+01	1.012E+04	6.802E-01
2112	6.424E+00	9.629E+03	6.470E-01	1.763E+01	9.629E+03	6.470E-01
2113	6.111E+00	9.160E+03	6.154E-01	1.677E+01	9.160E+03	6.154E-01
2114	5.813E+00	8.713E+03	5.854E-01	1.595E+01	8.713E+03	5.854E-01
2115	5.529E+00	8.288E+03	5.569E-01	1.517E+01	8.288E+03	5.569E-01
2116	5.260E+00	7.884E+03	5.297E-01	1.443E+01	7.884E+03	5.297E-01
2117	5.003E+00	7.499E+03	5.039E-01	1.373E+01	7.499E+03	5.039E-01
2118	4.759E+00	7.134E+03	4.793E-01	1.306E+01	7.134E+03	4.793E-01
2119	4.527E+00	6.786E+03	4.559E-01	1.242E+01	6.786E+03	4.559E-01
2120	4.306E+00	6.455E+03	4.337E-01	1.182E+01	6.455E+03	4.337E-01
2121	4.096E+00	6.140E+03	4.125E-01	1.124E+01	6.140E+03	4.125E-01
2122	3.896E+00	5.840E+03	3.924E-01	1.069E+01	5.840E+03	3.924E-01
2123	3.706E+00	5.556E+03	3.733E-01	1.017E+01	5.556E+03	3.733E-01
2124	3.526E+00	5.285E+03	3.551E-01	9.674E+00	5.285E+03	3.551E-01
2125	3.354E+00	5.027E+03	3.378E-01	9.202E+00	5.027E+03	3.378E-01
2126	3.190E+00	4.782E+03	3.213E-01	8.753E+00	4.782E+03	3.213E-01
2127	3.035E+00	4.549E+03	3.056E-01	8.326E+00	4.549E+03	3.056E-01
2128	2.887E+00	4.327E+03	2.907E-01	7.920E+00	4.327E+03	2.907E-01
2129	2.746E+00	4.116E+03	2.765E-01	7.534E+00	4.116E+03	2.765E-01
2130	2.612E+00	3.915E+03	2.630E-01	7.166E+00	3.915E+03	2.630E-01
2131	2.484E+00	3.724E+03	2.502E-01	6.817E+00	3.724E+03	2.502E-01