

Emissions of Greenhouse Gases in the United States 2004

Report #: DOE/EIA-0573(2004)
Released Date: December 2005
Next Release Date: December 2006

Table 21. U.S. Methane Emissions from Landfills, 1990 and 1996-2004

Type	1990	1996	1997	1998	1999	2000	2001	2002	2003	P2004
Million Metric Tons Carbon Dioxide Equivalent										
Gross Emissions from MSW Landfills . . .	260.5	258.3	257.5	257.0	256.4	261.4	265.2	270.8	277.3	284.8
Emissions from Industrial Landfills	18.2	18.1	18.0	18.0	17.9	18.3	18.6	19.0	19.4	19.9
Methane Recovered for Energy (-)	15.6	26.2	31.8	38.0	42.1	46.9	52.7	55.7	59.8	63.3
Methane Assumed Flared (-)	6.1	30.3	35.7	41.9	44.9	49.5	55.3	60.6	58.9	58.9
Net Emissions	257.0	219.8	208.1	195.0	187.4	183.3	175.8	173.4	178.1	182.6
Million Metric Tons Methane										
Gross Emissions from MSW Landfills . .	11.3	11.2	11.2	11.2	11.1	11.4	11.5	11.8	12.1	12.4
Emissions from Industrial Landfills	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9
Methane Recovered for Energy (-)	0.7	1.1	1.4	1.7	1.8	2.0	2.3	2.4	2.6	2.8
Methane Assumed Flared (-)	0.3	1.3	1.6	1.8	2.0	2.2	2.4	2.6	2.6	2.6
Net Emissions	11.2	9.6	9.0	8.5	8.1	8.0	7.6	7.5	7.7	7.9

*Less than 50,000 metric tons carbon dioxide equivalent.

P = preliminary data.

Note: Data in this table are revised from the data contained in the previous EIA report, *Emissions of Greenhouse Gases in the United States 2003*, DOE/EIA-0573(2003) (Washington, DC, December 2004).

Sources: Municipal solid waste landfilled in 2002 from "Nationwide Survey: The State of Garbage in America," *Biocycle* (January 2004). Municipal solid waste generated and landfilled in previous years from "Nationwide Survey: The State of Garbage in America," *Biocycle* (various years), adjusted on the basis of residential demolitions, to reflect exclusion of construction and demolition waste as in the 2002 data. Municipal waste landfilled in 2003 based on 2002 estimate, scaled to annual economic growth. Emissions calculations based on S.A. Thorneloe et al., "Estimate of Methane Emissions from U.S. Landfills," Prepared for the U.S. Environmental Protection Agency, Office of Research and Development (April 1994), and D. Augenstein, "The Greenhouse Effect and U.S. Landfill Methane," *Global Environment Change* (December 1992), pp. 311-328. Methane recovered and flared from U.S. Environmental Protection Agency, Landfill Methane Outreach Program, web site www.epa.gov/lmopl/. Emissions from industrial landfills estimated at 7 percent of methane emissions from municipal solid waste landfills, based on U.S. Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2003*, EPA-430-R-05-003 (Washington, DC, April 2005), web site <http://yosemite.epa.gov/oar/globalwarming.nsf/content/ResourceCenterPublicationsGHGEmissionsUSEmissionsInventory2005.html>.