



# What Can We Anticipate?

- 1. Landfill owners and operators can expect more stringent regulations and the cost of compliance to increase every year.**
- 2. As states increase their staffing via increased permit fees, inspections of control systems will become more paper intensive. Errors in record keeping will lead to enforcement actions.**
- 3. Mercury emissions from landfills will become a regulatory issue. Expect more regulations for mercury control.**



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- 4. Emissions of non-methane volatile organic compounds will draw more attention.**
- 5. Attempts will be made to tie landfills to local health problems (In England, a report indicated that birth defects are slightly higher near landfills. The solid Waste Industry is challenging that conclusion).**
- 6. In some regions of the nation, state regulatory agencies may ask for routine stack testing of LFG flares.**



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- 7. Dioxin emission measurement from exhausts of LFG combustion systems could be waiting in the wings.**
- 8. Costs of operating landfills will continue to increase.**
- 9. Global warming issues will continue to flare up as Europe, Japan, and Australia start the process of ratifying the KYOTO II treaty. The U.S. will have to react to international pressure as LFG becomes an easy target.**



# World Comparison 1997

COUNTRY	POPULATION (millions)	GDP (billion US\$)	GROSS ELECTRICITY CONSUMPTION (billion KWH)	PER CAPITA ELECTRICITY CONSUMPTION (KWH/year)
CANADA	30.0	624	459.1	15302
USA	271.5	8239	3173.6	11689
AUSTRALIA	18.5	420	153.6	8305
JAPAN	126.1	4212	913.6	7245
FRANCE	58.2	1406	355.1	6101
GERMANY	82.1	2114	461.9	5626
UK	59.0	1319	309.2	5241
ITALY	57.5	1165	248.1	4315
BRAZIL	163.7	807	285.7	1745
CHINA	1230.1	898	890.6	724
INDIA	962.4	408	352.2	366
<b>TOTAL</b>	<b>3059.1</b>	<b>21,612</b>	<b>7602.7</b>	
<b>THE WORLD</b>	<b>5817.9</b>	<b>29,681</b>	<b>12,008.1</b>	<b>2064</b>
<b>TOP ELEVEN</b>	<b>52.58%</b>	<b>72.81%</b>	<b>63.31%</b>	

Source: World Bank



# Municipal Solid Waste Data- U.S.

YEAR	POPULATION (millions)	MSW GENERATION (million tons)	RECOVERED MATERIALS (%)	MSW LANDFILLED (millions)	MSW LANDFILLED (lbs/cap/yr)
1993	257.91	206.91	21.7	131.2	1018
<b>1994</b>	<b>260.34</b>	<b>260.34</b>	<b>23.6</b>	<b>127.3</b>	<b>978</b>
1995	263.17	211.40	26.0	120.9	919
<b>1996</b>	<b>265.28</b>	<b>209.70</b>	<b>27.3</b>	<b>116.3</b>	<b>877</b>
1997	267.65	219.10	27.1	123.1	920
<b>1998</b>	<b>270.56</b>	<b>223.00</b>	<b>27.6</b>	<b>127.1</b>	<b>939</b>
1999	272.69	229.90	27.8	131.9	967
<b>TOTAL</b>		<b>1560.35</b>		<b>877.8</b>	

Source: US EPA Reports