

NOx AND CO EMISSIONS FROM LANDFILL GAS-FIRED TURBINES

Company	Unit #	Turbine Make	Model	Capacity		Exhaust	%load	High NOx	Low NOx	Average	Allowable	Average	Allowable	Average	Allowable
				HP	KW					NOx ppm @ 15% O2	NOx ppm @ 15% O2	CO lb/hr	CO lb/hr	CO ppm @ 15% O2	CO ppm @ 15% O2
SUMMARY NOx EMISSIONS:															
Average NOx emissions greater than 35 ppmvd @ 15% O2 = 14%,															
Highest NOx emissions data greater than 35 ppmvd @ 15% O2 = 19%															
Lowest NOx emissions data greater than 35 ppmvd @ 15% O2 = 13%															
SUMMARY CO EMISSIONS:															
Average NOx emissions greater than 100ppmvd @ 15% O2 = 0															
Waste Management of New Hampshire, Inc. Rochester, NH															
(Test Date: March 1998)	1	Solar Centaur	GSC-4500	4000	3300	1500	60%	32.94	31.95	32.5	42	4	6.3	N/A	N/A
							90%	29.53	29.32	29.43	42	6.1	6.3	N/A	N/A
(Test Date: March 1998)	2	Solar Centaur	GSC-4500	4000	3300	1500	60%	33.5	34.99	34.4	42	3.6	6.3	N/A	N/A
							90%	31.13	31.79	31.5	42	4.5	6.3	N/A	N/A
Waste Management of New Hampshire, Inc. Rochester, NH															
	1	Solar Centaur	GSC-4500	4000	3300	1500	100%	32.43	31.7	32.1	42	N/A	N/A	N/A	N/A
	2	Solar Centaur	GSC-4500	4000	3300	1500	100%	30.9	28.92	29.8	42	N/A	N/A	N/A	N/A
Waste Management of New Hampshire, Inc. Rochester, NH															
(Test Date: Janury 2001)	1	Solar Centaur	GSC-4500	4000	3300	1500	100%	26.9	26.3	26.7	42	N/A	N/A	N/A	N/A
	2	Solar Centaur	GSC-4500	4000	3300	1500	100%	26.6	25.9	26.3	42	N/A	N/A	N/A	N/A
Pennsbury GROWS Landfill - Morrisville															
(Test Date: July 1988)	1	Solar Centaur	GSC-4500	4000	3300	1500	~100%	28.4	25.3	27.3	150	N/A	N/A	N/A	N/A
							81%	25.1	22.1	23.4	150	N/A	N/A	N/A	N/A
(Test Date: July 1988)	2	Solar Centaur	GSC-4500	4000	3300	1500	60%	6.1	4.1	5.4	150	N/A	N/A	N/A	N/A
							81%	21.6	6.6	15.5	150	N/A	N/A	N/A	N/A
Waste Management Inc. of Florida. Central Disposal and Sanitary Landfill Facility - Pompano Beach, FL															
(Test Date: June 23, 1994)	1	Solar Centaur	T-4500	3982	2970	38522	~100%	17.9	17	17.5	51	5.2	8.6	46.3	N/A
(Test Date: June 23 & 24, 1994)	2	Solar Centaur	T-4500	3982	2970	37949	~100%	20.2	18.9	19.7	51	6.4	8.6	45.31	N/A
(Test Date: June 24, 1994)	3	Solar Centaur	T-4500	3982	2970	38446	~100%	18.4	17.3	19.7	51	5	8.6	35.05	N/A
(Test Date: June 21 and 22, 1994)	4	Solar Centaur	T-4500	3982	2970	39120	~100%	20.3	18.9	19.7	51	4.4	8.6	30.09	N/A
(Test Date: June 21, 1994)	5	Solar Centaur	T-4500	3982	2970	38465	~100%	21	19.2	20	51	4.7	8.6	34.93	N/A
(Test Date: April 20, 1995)	1	Solar Centaur	T-4500	3982	2970	41485	~100%	19.3	17.7	18.6	51	4.8	8.6	31.38	N/A
(Test Date: April 20, 1995)	2	Solar Centaur	T-4500	3982	2970	41324	~100%	19	17.5	18.2	51	4.6	8.6	29.85	N/A
(Test Date: April 21, 1995)	3	Solar Centaur	T-4500	3982	2970	41496	~100%	19	16.5	17.7	51	3.8	8.6	24.8	N/A
(Test Date: April 19, 1995)	4	Solar Centaur	T-4500	3982	2970	41515	~100%	24.6	16.1	19.3	51	3.5	8.6	22.77	N/A
(Test Date: April 18, 1995)	5	Solar Centaur	T-4500	3982	2970	41486	~100%	25.5	23.5	24.2	51	4.6	8.6	37.64	N/A
(Test Date: May 9, 1996)	1	Solar Centaur	T-4500	3982	2970	42678	~100%	23.5	23.19	23.33	51	5.18	8.6	32.87	N/A
(Test Date: May 8, 1996)	2	Solar Centaur	T-4500	3982	2970	41948	~100%	23.09	22.02	22.61	51	4.94	8.6	31.97	N/A
(Test Date: May 8, 1996)	3	Solar Centaur	T-4500	3982	2970	42819	~100%	22.21	21.02	21.59	51	4.49	8.6	28.46	N/A
(Test Date: May 7, 1996)	4	Solar Centaur	T-4500	3982	2970	42594	~100%	24.09	20.7	22.24	51	3.61	8.6	N/A	N/A
(Test Date: May 6, 1996)	5	Solar Centaur	T-4500	3982	2970	42643	~100%	22.02	18.08	20.7	51	4.77	8.6	30.41	N/A
(Test Date: April 23, 1997)	1	Solar Centaur	T-4500	3982	2970	36459	~100%	29.48	25.46	27.35	51	4.76	8.6	44.83	N/A
(Test Date: April 22, 1997)	2	Solar Centaur	T-4500	3982	2970	37064	~100%	31.91	25.45	29.03	51	4.74	8.6	43.5	N/A
(Test Date: April 24, 1997)	3	Solar Centaur	T-4500	3982	2970	36292	~100%	28.71	26.6	27.31	51	4.47	8.6	42.21	N/A
(Test Date: April 25, 1997)	4	Solar Centaur	T-4500	3982	2970	37064	~100%	26.16	25.05	25.66	51	3.57	8.6	27.35	N/A

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(Test Date: ~ November 1998)	1	Solar Centaur	T-4500	3982	2970	37064	~100%	N/A	N/A	25.74	51	N/A	N/A	N/A	N/A
(Test Date: ~ November 1998)	2	Solar Centaur	T-4500	3982	2970	37064	~100%	N/A	N/A	28.21	51	N/A	N/A	N/A	N/A
(Test Date: ~ November 1998)	3	Solar Centaur	T-4500	3982	2970	37064	~100%	N/A	N/A	27	51	N/A	N/A	N/A	N/A
(Test Date: ~ November 1998)	4	Solar Centaur	T-4500	3982	2970	37064	~100%	N/A	N/A	28.05	51	N/A	N/A	N/A	N/A
(Test Date: April 14, 1999)	1	Solar Centaur	T-4500	3982	2970	N/A	95%	47.2	46.1	46.5	51	1.56	8.6	14.71	N/A
(Test Date: April 13, 1999)	2	Solar Centaur	T-4500	3982	2970	N/A	97%	44.7	42.8	43.7	51	2.14	8.6	19.93	N/A
(Test Date: April 14, 1999)	3	Solar Centaur	T-4500	3982	2970	N/A	92%	44.3	42.7	43.3	51	1.76	8.6	16.95	N/A
(Test Date April 15, 1999)	4	Solar Centaur	T-4500	3982	2970	N/A	93%	43.2	41.9	42.6	51	2.38	8.6	22.43	N/A
(Test Date: February 29, 2000)	1	Solar Centaur	T-4500	3982	2970	N/A	104%	39.6	38.9	39.2	51	N/A	N/A	N/A	N/A
(Test Date: March 1, 2000)	2	Solar Centaur	T-4500	3982	2970	N/A	103%	39.1	38.4	38.7	51	N/A	N/A	N/A	N/A
(Test Date: February 29, 2000)	3	Solar Centaur	T-4500	3982	2970	N/A	95%	40.3	37.4	38.6	51	N/A	N/A	N/A	N/A
(Test Date: March 1, 2000)	4	Solar Centaur	T-4500	3982	2970	N/A	~100%	39.2	37.3	38.5	51	N/A	N/A	N/A	N/A
(Test Date: September 5, 2001) DRAFT	1	Solar Centaur	T-4500	3982	2970	N/A	101%	27.3	25.7	26.6	51	3.06	8.6	30.9	N/A
(Test Date: September 6, 2001) DRAFT	2	Solar Centaur	T-4500	3982	2970	N/A	101%	27.5	25.4	26.5	51	3.83	8.6	37.08	N/A
(Test Date: September 5, 2001) DRAFT	3	Solar Centaur	T-4500	3982	2970	N/A	96%	24.43	23.49	23.83	51	4.01	8.6	37.96	N/A
(Test Date: July 11, 2002)	1	Solar Centaur	T-4500	3982	2970	N/A	105%	25.2	24.5	24.8	51	3.47	N/A	32.77	N/A
(Test Date: July 10, 2002)	2	Solar Centaur	T-4500	3982	2970	N/A	105%	30.2	29.7	30	51	N/A	N/A	36.6	N/A
(Test Date: July 11, 2002)	3	Solar Centaur	T-4500	3982	2970	N/A	97%	26.6	25.7	26	51	N/A	N/A	35.76	N/A
(Test Date: April 2, 2003)	1	Solar Centaur	T-4500	3982	2970	N/A	102%	38.1	37.3	37.7	51	2.43	8.6	22.2	N/A
(Test Date: April 3, 2004)	2	Solar Centaur	T-4500	3982	2970	N/A	104%	31.4	31.2	31.3	51	2.87	8.6	26.57	N/A
(Test Date: April 2, 2004)	3	Solar Centaur	T-4500	3982	2970	N/A	97%	32.5	32.6	32.5	51	3.27	8.6	29.66	N/A
(Test Date: March 18, 2004)	1	Solar Centaur	T-4500	3982	2970	25190	~100%	29.9	29.1	29.5	51	1.4	8.6	45	N/A
(Test Date: March 19, 2004)	2	Solar Centaur	T-4500	3982	2970	24484	~100%	29.3	28.2	28.9	51	1.1	8.6	30.3	N/A
(Test Date: March 19, 2004)	3	Solar Centaur	T-4500	3982	2970	25114	~100%	29.7	28.6	29.4	51	1	8.6	29	N/A
CID Recycling and Disposal Facility, Calumet, IL	1	N/A	N/A	N/A	N/A	N/A	25%	32.1	31.4	31.81	N/A	N/A	N/A	N/A	N/A
(Test Date: March 2003)		N/A	N/A	N/A	N/A	N/A	50%	38.87	37.45	38.02	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	75%	39.27	42.26	40.64	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	~100%	40.19	41.07	40.63	N/A	N/A	N/A	N/A	N/A
Metro Landfill, Franklin, Wisconsin															
(Test Date: April 21, 1986)	1	N/A	N/A	N/A	N/A	N/A	N/A	39.06	30.58	33.93	N/A	N/A	N/A	N/A	N/A
(Test Date: October 6, 1988)	1	N/A	N/A	N/A	N/A	40585	N/A	31.6	28	30.53	N/A	N/A	N/A	N/A	N/A
(Test Date: August 12, 1992)	2	N/A	N/A	N/A	N/A	43,804	~100%	16	15	15	N/A	6.94	N/A	65	N/A
Waste Management of Alameda County, California															
(Test Date: January 9, 2004)	1	N/A	N/A	N/A	N/A	N/A	N/A	30.34	29.28	29.76	42	4.57	N/A	31.21	128
(Test Date January 23, 2004)	2	N/A	N/A	N/A	N/A	N/A	N/A	31	26.79	30.47	42	2.8	N/A	37.18	128
(Test Date September 8, 2004)	1	N/A	N/A	N/A	N/A	29291	100%	31.6	30.4	31	42	3.2	N/A	33.4	128
(Test Date September 8, 2004)	2	N/A	N/A	N/A	N/A	30502	100%	33.5	31.7	32.4	42	2.7	N/A	28.1	128
Waste Management of North America, Settler's Hill, IL															
(Test Date February 14, 1989)	1	Solar Centaur	T4500	4000	3300	1750	33% - 50%	46.61	41.23	44.06	N/A	N/A	N/A	N/A	N/A
(Test Date November 6, 1989)	1	Solar Centaur	T4500	4000	3300	34581	~100%	34.56	31.88	33.53	N/A	N/A	N/A	N/A	N/A

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(Test Date July 1, 1998)	2	Solar Centaur	T4501	3754	2800	N/A	35%	24.02	21.66	22.5	N/A	N/A	N/A	N/A	N/A
(Test Date July 1, 1998)	2	Solar Centaur	T4501	3754	2800	N/A	57%	25.12	24.2	24.65	N/A	N/A	N/A	N/A	N/A
(Test Date July 2, 1998)	2	Solar Centaur	T4501	3754	2800	N/A	78%	33.42	32.46	32.91	N/A	3.8	N/A	29.82	N/A
Waste Management of Wisconsin, Orchard Ridge, WI															
(Test Date: November 20, 2002)	3	N/A	N/A	N/A	N/A	N/A	N/A	31.01	29.2	30	N/A	N/A	N/A	N/A	N/A
Omega Hills Landfill, Menomonee Falls, WI															
(Test Date: April 17, 1986)	1	N/A	N/A	N/A	N/A	N/A	N/A	25	21.7	23.8	N/A	N/A	N/A	N/A	N/A
(Test Date: April 18, 1986)	2	N/A	N/A	N/A	N/A	N/A	N/A	30.57	29.21	30.07	N/A	N/A	N/A	N/A	N/A
(Test Date: July 30, 1991)	1	N/A	N/A	N/A	N/A	N/A	N/A	33.93	28.41	31.55	N/A	6.5	N/A	81.71	N/A
(Test Date: November 30, 1993)	1	N/A	N/A	N/A	N/A	N/A	N/A	19.31	18.24	18.63	N/A	5.09	N/A	44.81	N/A
Green Valley Landfill/Naperville, IL															
(Test Date July 9, 1996)	1	N/A	N/A	N/A	N/A	41366	N/A	30.46	29.17	29.69	N/A	3.4	N/A	29.58	N/A
(Test Date July 10, 1996)	2	N/A	N/A	N/A	N/A	40544	N/A	34.7	33.85	34.3	N/A	3.07	N/A	28.49	N/A
(Test Date: January 8, 1999)	3	Solar Centaur	N/A	N/A	N/A	N/A	N/A	24.84	20.5	23.38	N/A	3.7	7	26.27	N/A
(Test Date: October 4, 2001)	1	Solar Centaur	N/A	N/A	N/A	N/A	100%	38.6	30.3	33.9	N/A	3.3	12	28.3	N/A
(Test Date: October 4, 2001)	1	Solar Centaur	N/A	N/A	N/A	N/A	75%	32.3	32	32.1	N/A	3.4	12	39.7	N/A
(Test Date: October 5, 2001)	1	Solar Centaur	N/A	N/A	N/A	N/A	50%	36	30.9	33.3	N/A	1.4	12	26.9	N/A
(Test Date: October 5, 2001)	1	Solar Centaur	N/A	N/A	N/A	N/A	30%	32.1	25.5	28.5	N/A	0.9	12	26.2	N/A
(Test Date: October 3, 2001)	2	Solar Centaur	N/A	N/A	N/A	N/A	100%	34.7	33.6	34.2	N/A	3.2	12	26.4	N/A
(Test Date: October 4, 2001)	2	Solar Centaur	N/A	N/A	N/A	N/A	75%	37.1	33.8	35.4	N/A	2.8	12	34	N/A
(Test Date: October 4, 2001)	2	Solar Centaur	N/A	N/A	N/A	N/A	50%	34	31.6	33.2	N/A	1.1	12	21.8	N/A
(Test Date: October 4, 2001)	2	Solar Centaur	N/A	N/A	N/A	N/A	30%	33.1	32	32.4	N/A	0.7	12	26	N/A
(Test Date: October 2, 2001)	3	Solar Centaur	N/A	N/A	N/A	N/A	100%	32.1	30.1	30.8	N/A	4.1	12	37.2	N/A
(Test Date: October 3, 2001)	3	Solar Centaur	N/A	N/A	N/A	N/A	75%	31.2	30.8	31	N/A	3.6	12	46.4	N/A
(Test Date: October 3, 2001)	3	Solar Centaur	N/A	N/A	N/A	N/A	50%	32.8	31.7	32.3	N/A	1.6	12	33.2	N/A
(Test Date: October 3, 2001)	3	Solar Centaur	N/A	N/A	N/A	N/A	30%	28.7	28	28.2	N/A	0.7	12	21.1	N/A
Lake Landfill Facility, Cook County, IL															
(Test Date September 1, 1988)	1	N/A	N/A	N/A	N/A	34048	N/A	36.2	35.3	35.6	N/A	N/A	N/A	N/A	N/A
(Test Date August 31, 1988)	2	N/A	N/A	N/A	N/A	34389	N/A	37.1	33.3	35.5	N/A	N/A	N/A	N/A	N/A
(Test Date October 7, 1993)	4	N/A	N/A	N/A	N/A	39606	N/A	35.91	24.95	30.42	N/A	N/A	N/A	N/A	N/A
Green Knight Energy Center, PA															
	1	N/A	N/A	N/A	N/A	35227	100%	27.87	27.22	27.62	N/A	5.75	N/A	40.6	N/A
	1	N/A	N/A	N/A	N/A	N/A	75%	28.54	28.22	28.43	N/A	N/A	N/A	N/A	N/A
	1	N/A	N/A	N/A	N/A	N/A	50%	27.46	26.55	26.85	N/A	N/A	N/A	N/A	N/A
	1	N/A	N/A	N/A	N/A	N/A	30%	24.84	24.19	24.42	N/A	N/A	N/A	N/A	N/A
	2	N/A	N/A	N/A	N/A	35749	100%	26.55	25.96	26.2	N/A	5.51	N/A	43.7	N/A
	2	N/A	N/A	N/A	N/A	N/A	75%	27.53	27.27	27.41	N/A	N/A	N/A	N/A	N/A
	2	N/A	N/A	N/A	N/A	N/A	50%	26.04	25.12	25.49	N/A	N/A	N/A	N/A	N/A
	2	N/A	N/A	N/A	N/A	N/A	30%	29.26	28.32	28.63	N/A	N/A	N/A	N/A	N/A
	3	N/A	N/A	N/A	N/A	33388	100%	25.7	25.5	25.6	N/A	4.71	N/A	39.4	N/A
	3	N/A	N/A	N/A	N/A	N/A	75%	27.43	21.33	25.34	N/A	N/A	N/A	N/A	N/A
	3	N/A	N/A	N/A	N/A	N/A	50%	24.29	23.99	24.19	N/A	N/A	N/A	N/A	N/A
	3	N/A	N/A	N/A	N/A	N/A	30%	29.29	29.08	28.9	N/A	N/A	N/A	N/A	N/A

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New Milford Landfill, CT															
(Test Date: December 4, 1991)	1	Solar	N/A	N/A	N/A	N/A	N/A	32	28.8	30.4	N/A	N/A	N/A	N/A	N/A
(Test Date: Date November 7, 1996)	1	Solar	N/A	N/A	N/A	N/A	N/A	31.1	25.8	27.6	N/A	N/A	N/A	N/A	N/A
(Test Date: December 28, 2001)	1	Solar	N/A	N/A	N/A	N/A	N/A	29.9	29.7	29.8	N/A	5.8	N/A	N/A	N/A
Waste Management of Texas, Lewisville, TX															
(Test Date September 1989)	1	Solar Centaur	N/A	N/A	N/A	N/A	N/A	23	21	22.3	N/A	2.3	N/A	N/A	N/A
(Test Date: May 1996)	2	Solar Centaur	N/A	N/A	N/A	30884	100%	25.5	24.3	24.8	N/A	3.8	N/A	37.3	N/A
			N/A	N/A	N/A	30876	80%	28.7	27.4	27.9	N/A	3.16	N/A	35.8	N/A

CO Emissions from Landfill Gas-fired turbines

