

INTEROFFICE MEMORANDUM

Date: September 10, 2007
 To: Arthur L. Williams, Director
 From: Larry Garrison, Technical Services Supervisor
 Re: August 2007 FRM PM_{2.5} Monitoring Update Report

This is a report of August 2007 Federal Reference Method PM_{2.5} monthly averages, annual averages, and 3-year annual design values data summaries. (These data are subject to further quality assurance and are not final.)

August 2007

Table 1. PM_{2.5} Monthly Data Summary (µg/m³)

<u>Site Name</u>	<u>Daily Maximum Conc. & Date</u>	<u>Daily Minimum Conc. & Date</u>	<u>Run Time</u>	<u>Monthly Average</u>
Southwick	47.4 (08/02)	8.1 (08/18)	93.5 %	21.0
Wyandotte	44.5 (08/02)	7.7 (08/18)	96.8 %	21.5
Barret	42.9 (08/04)	11.3 (08/18)	100.0 %	22.0
Watson	51.3 (08/04)	11.9 (08/10)	100.0 %	26.9
Overall				22.9

The 24-hour average standard is 35µg/m³. Ref: 40 CFR Part 50, National Ambient Air Quality Standards for Particulate Matter.

Table 2. PM_{2.5} Design Values and Annual Mean Comparisons

<u>Site Name</u>	<u>Annual Mean (ug/m³)</u>							<u>Annual Design Values (2001-2003)</u>	<u>Annual Design Values (2002-2004)</u>	<u>Annual Design Values (2003-2005)</u>	<u>Annual Design Values (2004-2006)</u>	<u>Annual Design Values (2005-2007)³</u>
	<u>2007³</u>	<u>2006</u>	<u>2005</u>	<u>2004</u>	<u>2003</u>	<u>2002</u>	<u>2001</u>					
Southwick/ <i>Firearms Trn¹</i>	15.8	15.0	16.7	14.6	15.4	17.2	17.1/ 18.7 ¹	N/A	15.9 ²	15.6 ²	15.4 ²	15.8 ²
Wyandotte	15.6	15.1	16.6	14.1	15.2	17.5	17.7	16.8 ²	15.6	15.3	15.2	15.8
Barret	15.8	14.1	16.8	14.0	15.2	16.3	16.9	16.1	15.2	15.3	15.0	15.6
Watson	16.8	13.8	16.5	12.7	15.1	15.3	16.3	15.5	14.4	14.7	14.3	15.7

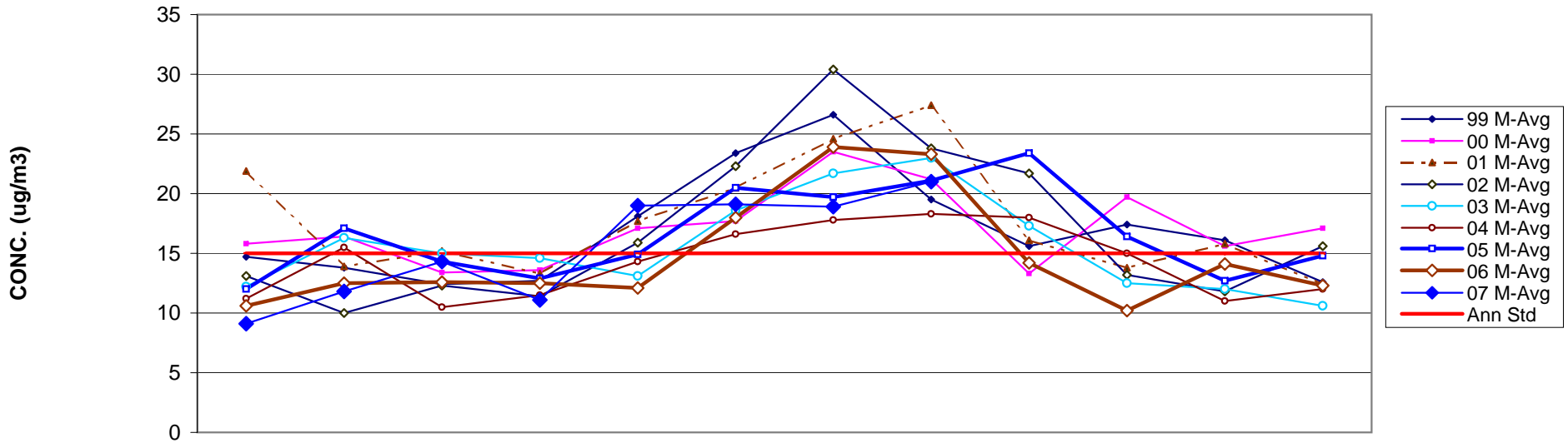
The annual average standard is 15.0µg/m³.

¹ *Firearms Training* temporarily replaced Southwick Community Center monitoring during 2001, due to renovation. Twelve Quarters of contiguous data are unavailable. ² Design value site for Louisville. ³ Year-to-date data for 2007.

Table 3. Louisville Metro FRM PM_{2.5} Monthly Averages Tracking Table for 1999-2007

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Months > 15.0 ug/m3
Ann Std	15	15	15	15	15	15	15	15	15	15	15	15	
99 M-Avg	14.7	13.8	12.4	12.7	18.1	23.4	26.6	19.5	15.6	17.4	16.1	12.6	7
00 M-Avg	15.8	16.4	13.4	13.6	17.1	17.7	23.5	21.2	13.3	19.7	15.6	17.1	9
01 M-Avg	21.9	13.9	15.2	13.3	17.7	20.5	24.6	27.4	16.1	13.8	15.8	12.4	8
02 M-Avg	13.1	10	12.3	11.4	15.9	22.3	30.4	23.8	21.7	13.2	11.8	15.6	6
03 M-Avg	12.2	16.3	15	14.6	13.1	18.6	21.7	23	17.3	12.5	12	10.6	5
04 M-Avg	11.2	15.5	10.5	11.5	14.3	16.6	17.8	18.3	18	15	11	12	5
05 M-Avg	12	17.1	14.3	12.9	14.9	20.5	19.7	21.1	23.4	16.4	12.7	14.8	6
06 M-Avg	10.6	12.5	12.6	12.5	12.1	18	23.9	23.3	14.2	10.2	14.1	12.3	3
07 M-Avg	9.1	11.8	14.2	11.1	19	19.1	18.9	21.0					4

LOUISVILLE METRO FRM PM2.5 MONTHLY AVERAGES TRENDS FOR 1999 - 2007



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
99 M-Avg	14.7	13.8	12.4	12.7	18.1	23.4	26.6	19.5	15.6	17.4	16.1	12.6
00 M-Avg	15.8	16.4	13.4	13.6	17.1	17.7	23.5	21.2	13.3	19.7	15.6	17.1
01 M-Avg	21.9	13.9	15.2	13.3	17.7	20.5	24.6	27.4	16.1	13.8	15.8	12.4
02 M-Avg	13.1	10	12.3	11.4	15.9	22.3	30.4	23.8	21.7	13.2	11.8	15.6
03 M-Avg	12.2	16.3	15	14.6	13.1	18.6	21.7	23	17.3	12.5	12	10.6
04 M-Avg	11.2	15.5	10.5	11.5	14.3	16.6	17.8	18.3	18	15	11	12
05 M-Avg	12	17.1	14.3	12.9	14.9	20.5	19.7	21.1	23.4	16.4	12.7	14.8
06 M-Avg	10.6	12.5	12.6	12.5	12.1	18	23.9	23.3	14.2	10.2	14.1	12.3
07 M-Avg	9.1	11.8	14.3	11.1	19	19.1	18.9	21				
Ann Std	15	15	15	15	15	15	15	15	15	15	15	15

MONTH

September 10, 2007
2007 Louisville, MSA 8-Hr Ozone Monitoring Report
(Data are not quality assured)

Table 1: 2007 8-Hr Ozone Monitoring Summary Report

8-Hour FCST AQI / Max. ppb	# 8-Hour Exceedances	# of Days with Exceedances	Date	Charlestown (CH) Clark Co. IN	New Albany (NA) Floyd Co. IN	Bates (BA) Jefferson Co. KY	Watson (WS) Jefferson Co. KY	WLKY- TV (WK) Jefferson Co. KY	Buckner (BK) Oldham Co. KY	Shepherdsville (SH) Bullitt Co. KY	# AQAs
	1	1	5/21/2007	90	76	78	76	78	<u>83</u>	77	
111 / 85	1	1	5/22/2007	85	76	76	79	77	77	<u>78</u>	1
111 / 78			5/23/2007	78	66	70	65	66	73	69	2
105 / 73			5/24/2007	73	60	70	65	63	73	69	3
106 / 68			5/30/2007	68	59	59	62	63	67	59	4
			6/11/2007	84	77	71	82	73	81	72	
	2	1	6/12/2007	87	84	77	85	78	84	76	
103 / 84			6/13/2007	84	78	76	82	75	82	76	5
103 / 73			6/14/2007	69	63	57	73	61	67	55	6
			6/16/07	75	70	77	77	71	80	84	
127/88	2	1	6/17/2007	82	<u>79</u>	85	75	<u>79</u>	88	78	7
105/72			6/18/2007	70	58	64	57	59	72	58	8
			6/21/07	84	68	82	74	71	72	82	
	1	1	7/3/07	94	77	69	65	76	78	67	
111/71			7/7/07	63	60	69	71	66	64	64	9
114/86	1	1	7/8/07	67	62	86	72	69	72	64	10
104/78			7/9/07	74	66	69	61	62	78	62	11
104/89	1	1	8/1/07	72	74	70	89	71	67	65	12
135/98	3	1	8/2/07	68	95	93	72	98	73	63	13
120/82			8/3/07	59	64	81	74	74	69	82	14
119/86	1	1	8/4/07	86	73	72	64	71	79	62	15
	1	1	8/12/07	*	74	75	88	74	64	78	
109/68			8/13/07	*	65	67	42	60	66	68	16
			8/14/07	*	72	72	<u>84</u>	64	60	67	
	2	1	8/15/07	*	74	85	71	75	86	69	
			8/28/07	*	68	78	70	83	80	64	
103/70			8/29/07	*	61	61	64	53	70	53	17
	1	1	9/3/07	*	72	85	74	72	70	64	
104/95	3	1	9/4/07	*	95	87	83	87	80	68	18
109/74			9/5/07	*	74	73	74	74	73	60	19
Total- 13 days / 20 Exceed- ances	20	13		5	2	6	3	2	2	0	

Notes: An 8-hour average of 85 ppb or greater exceeds the new ozone standard. AQAs: Air Quality Alerts. FCST – Forecast.
Bold – greater than 84 ppb. Underline – 4th max. *Have not received data.

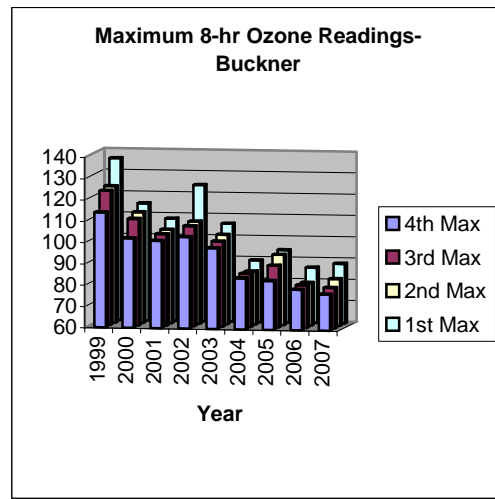
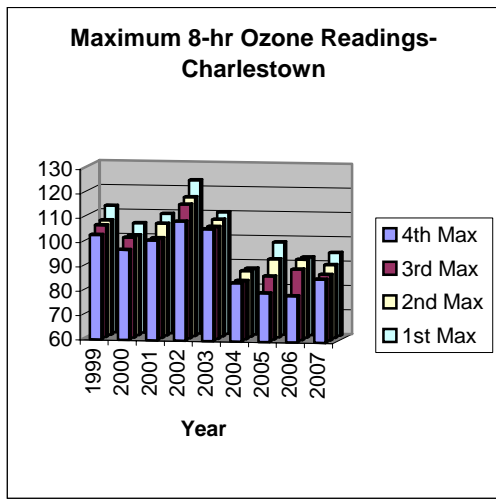


Table 2: Louisville 1998 – 2007 8-Hr Exceedance Summary

Year	Charlestown	New Albany	Bates	Watson	WLKY-TV	Buckner	Shep.	Louisville MSA Total		Jefferson County Total	
								Exceedances	Days	Exceedances	Days
1998	22	14	10	11	7	12	12	88	30	28	15
1999	11	10	16	13	4	34	11	99	44	33	22
2000	4	0	5	1	3	4	2	19	10	9	6
2001	4	0	2	1	1	4	2	14	10	4	3
2002	17	13	4	15	7	12	10	78	26	26	19
2003	4	4	1	0	0	2	0	11	7	1	1
2004	0	0	1	0	0	0	1	2	2	1	1
2005	3	2	0	4	1	4	0	14	8	5	4
2006	3	1	0	1	0	3	0	8	6	1	1
2007	5	2	6	3	2	2	0	20	13	11	9

8-hr Ozone Exceedances

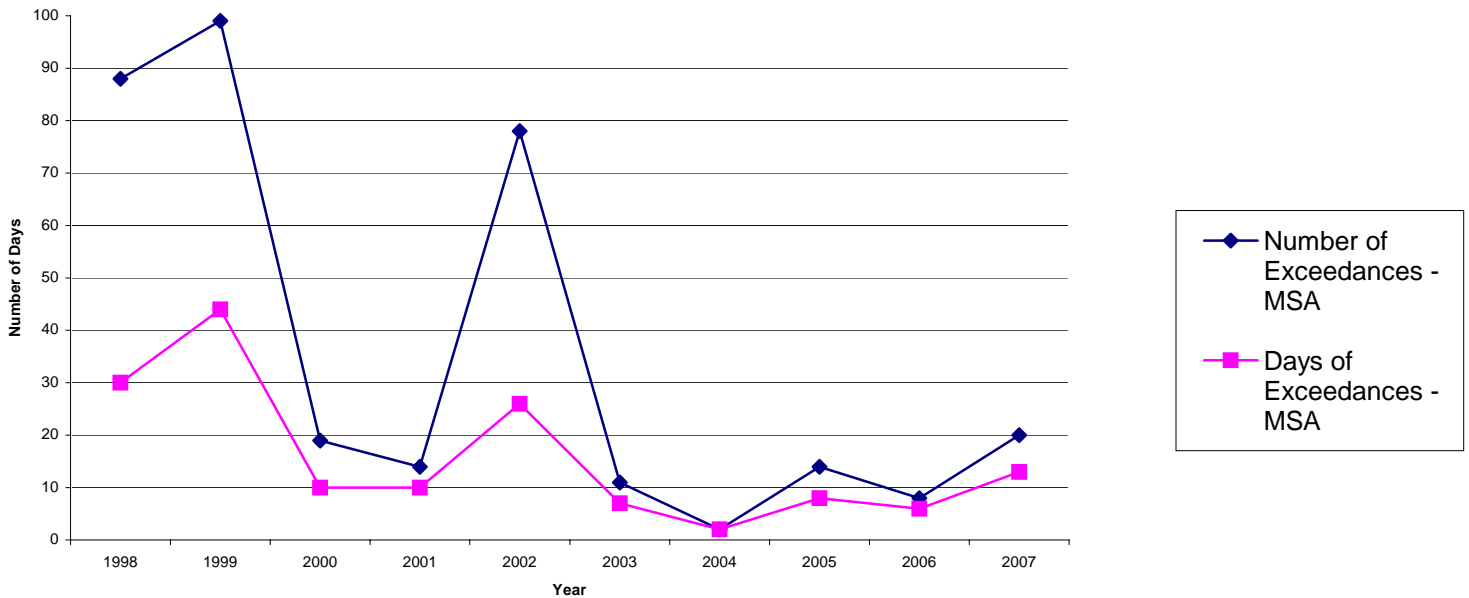


Table 3: 8-Hr Ozone 4th Maximum

Year	Louisville, MSA	Charles-Town (CH)	New Albany (NA)	Bates (BA)	Watson (WS)	WLKY-TV (WK)	Buckner (BK)	Shepherdsville (SH)
2007	86	86	79	85	84	79	83	78
2006	83	79	76	74	77	67	83	71
2005	89	80	80	79	85	74	89	80
2004	76	74	71	70	70	68	76	68
2003	90	90	86	72	75	73	82	72
2002	100	100	97	85	96	88	91	91
2001	86	86	76	81	81	77	86	82
2000	90	85	77	90	76	84	85	82
1999	103	89	94	97	100	86	103	93

8-Hr Ozone Annual 4th Maximum Reading for Metro Louisville

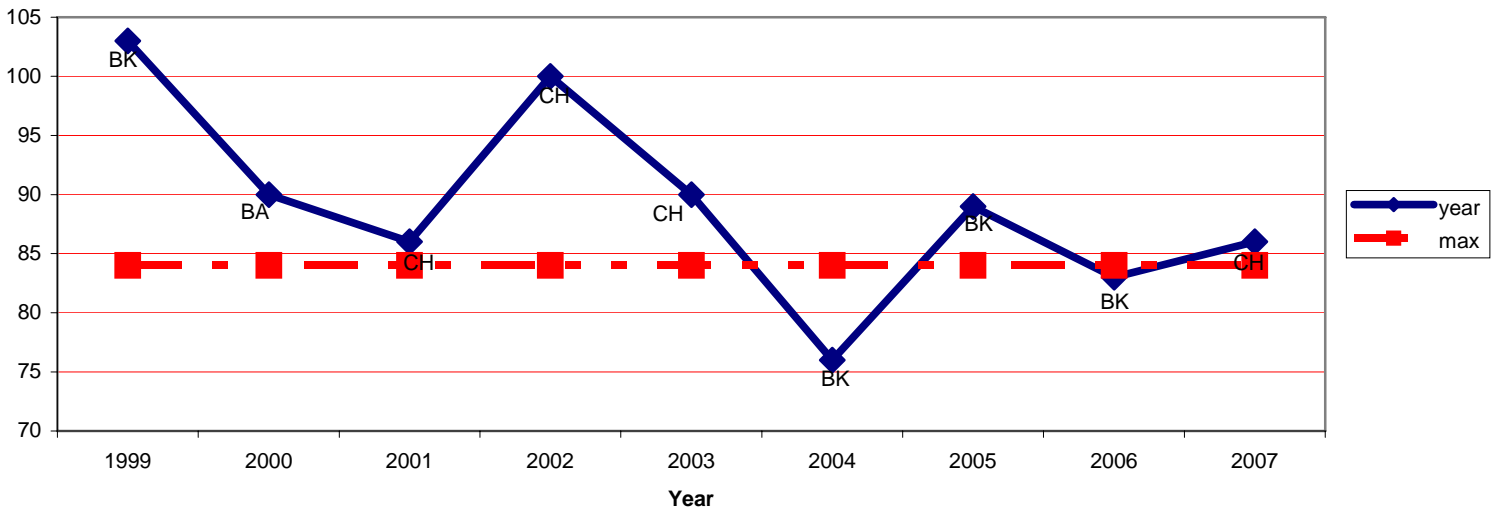


Table 4: 8-Hour Ozone Design Value Summary

Year	Louisville, MSA	Charles-town	New Albany	Bates	Watson	WLKY-TV	Buckner	Shepherdsville
05-07 Avg.	85 BK	81	78	79	82	73	85	76
04-06 Avg.	82 BK	77	75	72	77	69	82	73
03-05 Avg.	82 BK	81	79	73	76	71	82	73
02-04 Avg.	88 CH	88	84	74	80	76	82	77
01-03 Avg.	92 CH	92	86	77	84	79	86	81
00-02 Avg.	90 CH	90	83	85	84	83	87	85
99-01 Avg.	91 BK	86	82	89	85	82	91	85

Bold –Design Value Sites for respective periods.

8-Hr NAAQS: Attainment of the 8-Hr Ozone National Ambient Air Quality Standard (NAAQS) at an individual monitor is achieved when the three-year average of the annual fourth-highest daily maximum (4th maximum) 8-hr average ozone concentration is less than or equal to 84 ppb. This three-year average is the design value for that monitor.

8-Hour Ozone Design Value

