

INTEROFFICE MEMORANDUM

Date: December 10, 2007
 To: Arthur L. Williams, Director
 From: Larry Garrison, Air Monitoring Unit Supervisor
 Re: November 2007 FRM PM_{2.5} Monitoring Update Report

This is a report of November 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.)

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

	Daily Maximum	Daily Minimum		Monthly
Site Name	Conc. & Date	Conc. & Date	Run Time	Average
Southwick	25.4 (11/18)	3.4 (11/22)	100.0 %	13.1
Wyandotte	25.1 (11/10)	3.7 (11/22)	100.0 %	13.2
Barret	18.2 (11/11)	8.6 (11/23)	100.0 %	12.5
Watson	15.2 (11/20)	8.5 (11/26)	100.0 %	11.2
Overall				12.5

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

Site Name	Annual Mean (µg/m ³)							Annual Design Values (2001-2003)	Annual Design Values (2002-2004)	Annual Design Values (2003-2005)	Annual Design Values (2004-2006)	Annual Design Values (2005-2007) ³
	2007 ³	2006	2005	2004	2003	2002	2001					
Southwick <i>Firearms Trn¹</i>	15.3	15.0	16.7	14.5	16.0	17.2	17.1/ 18.7 ¹	N/A	15.9 ²	15.7 ²	15.4 ²	15.7 ²
Wyandotte	15.0	15.2	16.5	14.1	15.4	17.5	17.7	16.8 ²	15.7	15.3	15.3	15.6
Barret	15.3	14.0	16.8	13.7	15.5	16.4	16.9	16.3	15.2	15.3	14.8	15.4
Watson	15.7	13.7	16.5	12.6	14.9	15.7	16.3	15.6	14.4	14.7	14.3	15.3

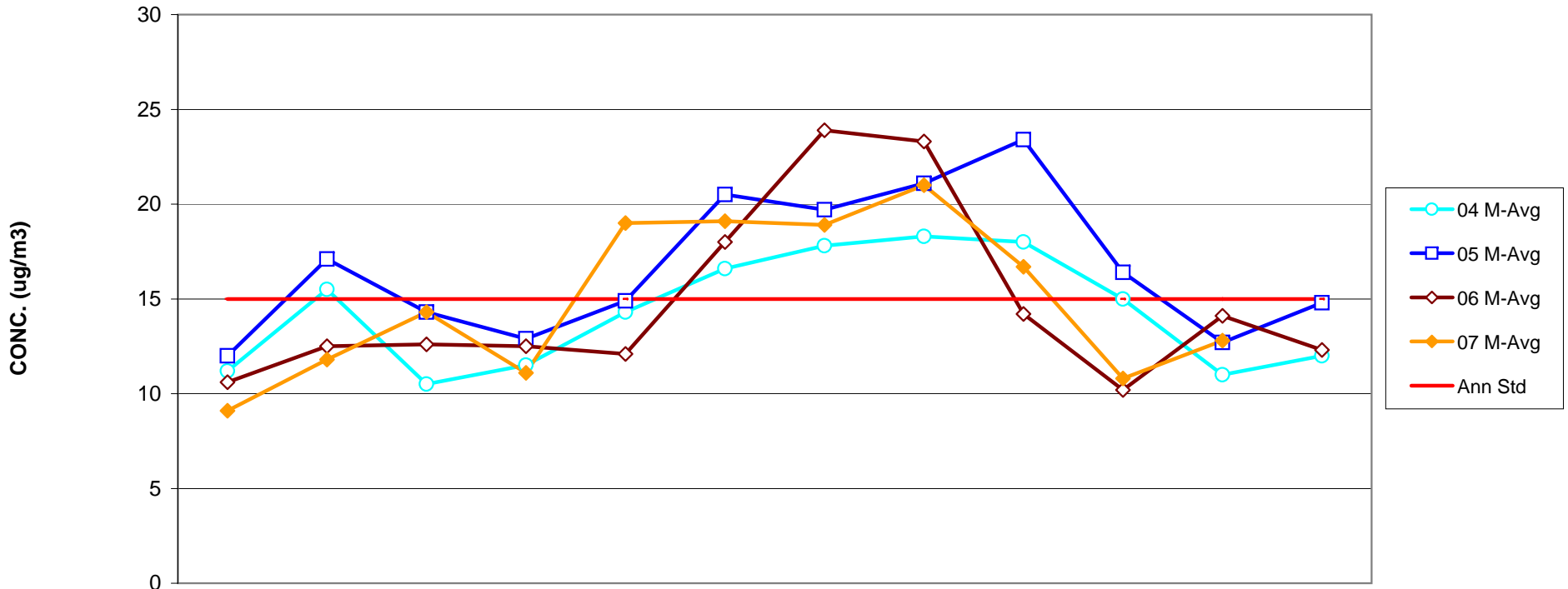
The annual average standard is 15.0µg/m³.

¹ *Firearms Training* temporarily replaced Southwick Community Center monitoring during 2001, due to renovation. Twelve quarters of contiguous data are unavailable. ²Design value site for Louisville. ³Year-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 µg/m ³
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	16.7	10.8	12.5		5

LOUISVILLE METRO FRM PM2.5 MONTHLY AVERAGES TRENDS FOR 2004 - 2007



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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	16.7	10.8	12.8	
Ann Std	15	15	15	15	15	15	15	15	15	15	15	15

MONTH

8-Hr Ozone Monitoring Report For Louisville MSA November 2007

(Data are not quality assured)

Table 1: 2007 8-Hr Ozone Monitoring Summary Report

8-Hour				Charlestown (CH)	New Albany (NA)	Bates (BA)	Watson (WS)	WLKY-TV (WK)	Buckner (BK)	Shepherdsville (SH)	
FCST AQI / Max. ppb	# 8-Hour Exceedances	# of Days with Exceedances	Date	Clark Co. IN	Floyd Co. IN	Jefferson Co. KY	Jefferson Co. KY	Jefferson Co. KY	Oldham Co. KY	Bullitt Co. KY	# AQA
	1	1	5/21/07	<u>90</u>	76	78	76	78	83	77	
111 / 85	1	1	5/22/07	85	78	76	79	77	77	78	1
111 / 78			5/23/07	78	68	70	65	66	73	69	2
105 / 73			5/24/07	73	62	70	65	63	73	69	3
106 / 68			5/30/07	68	61	59	62	63	67	59	4
	2	1	6/12/07	87	87	77	85	78	<u>84</u>	76	
103 / 84			6/13/07	84	81	76	82	75	82	76	5
103 / 73			6/14/07	69	66	57	73	61	67	55	6
127/88	2	1	6/17/07	82	82	85	75	<u>79</u>	88	78	7
105/72			6/18/07	70	58	64	57	59	72	58	8
	1	1	7/3/07	94	77	69	65	76	78	67	
111/71			7/7/07	63	51	69	71	66	64	64	9
114/86	1	1	7/8/07	67	66	<u>86</u>	72	69	72	64	10
104/78			7/9/07	74	70	69	61	62	78	62	11
104/89	1	1	8/1/07	72	76	70	89	71	67	65	12
135/98	3	1	8/2/07	68	97	93	72	98	73	63	13
120/82			8/3/07	59	59	81	74	74	69	82	14
119/86	1	1	8/4/07	86	75	72	64	71	79	62	15
	1	1	8/12/07	*	*	75	88	74	64	<u>78</u>	
109/68			8/13/07	67	67	67	42	60	66	68	16
			8/14/07	*	72	72	84	64	60	67	
	2	1	8/15/07	*	74	85	71	75	86	69	
	1	1	8/28/07	95	68	78	70	83	80	64	
103/70			8/29/07	68	63	61	64	53	70	53	17
	1	1	9/3/07	74	74	85	74	72	70	64	
107/95	4	1	9/4/07	89	97	87	83	87	80	68	18
109/83			9/5/07	83	76	73	74	74	73	60	19
	2	1	9/19/07	91	77	86	65	78	86	61	
104/87	2	1	9/20/07	82	<u>82</u>	87	<u>85</u>	74	81	72	20
101/77			9/22/07	76	62	58	53	61	77	45	21
106/61			9/23/07	62	63	50	50	55	61	40	22
Totals	28	16		8	3	8	4	2	3	0	

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

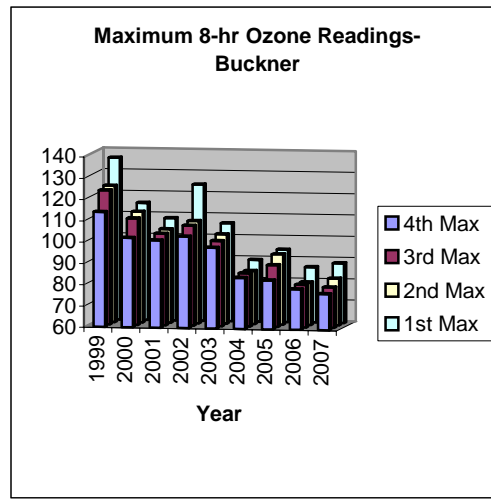
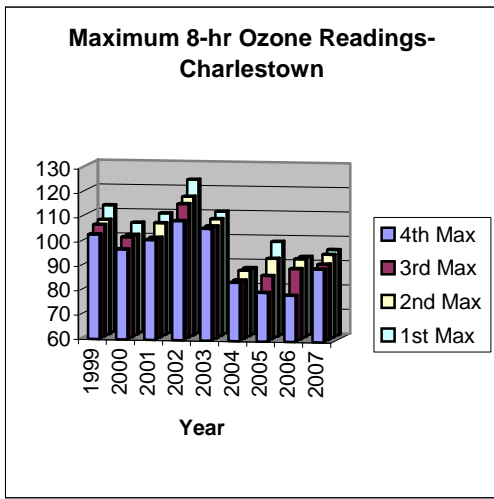


Table 2: 1998 – 2007 8-Hour Ozone Exceedance Summary

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	8	3	8	4	2	3	0	28	16	14	11

Historical Graph of 8-Hour Ozone Exceedances

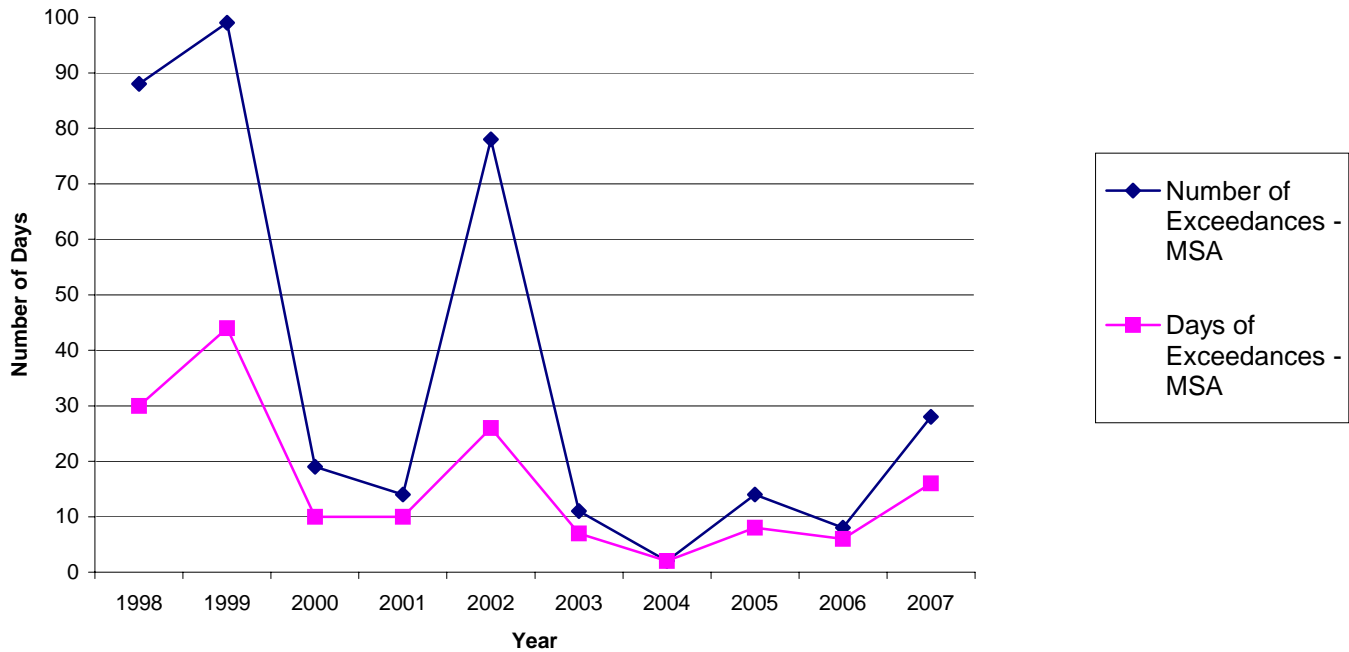


Table 3: 1999-2007 8-Hour Ozone 4th Maximum

Year	Louisville MSA	Charlestown (CH)	New Albany (NA)	Bates (BA)	Watson (WS)	WLKY-TV (WK)	Buckner (BK)	Shepherdsville (SH)
2007	90	90	82	86	85	79	84	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-Hour Ozone Annual 4th Maximum Reading for Louisville MSA

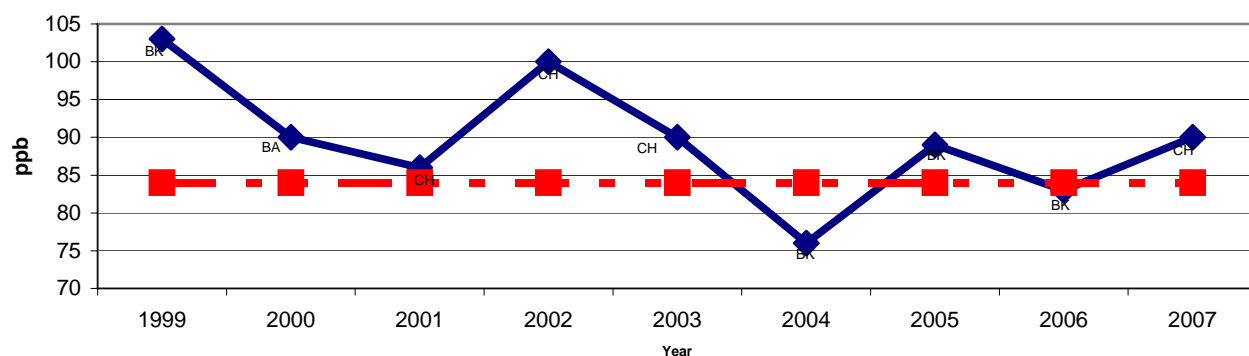


Table 4: 8-Hour Ozone Design Value Summary

Year	Louisville MSA	Charlestown (CH)	New Albany (NA)	Bates (BA)	Watson (WS)	WLKY-TV (WK)	Buckner (BK)	Shepherdsville (SH)
05-07 Avg.	85 BK	83	79	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 Trend for Louisville MSA

