INTEROFFICE MEMORANDUM

Date: October 9 2007
To: Arthur L. Williams, Director
From: Larry Garrison, Environmental Supervisor
Re: September 2007 FRM PM2.5 Monitoring Update Report

This is a report of September 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.)

September 2007

Table 1. $PM_{2.5}$ Monthly Data Summary ($\mu g/m^3$)

	Daily Maximum	Daily Minimum		Monthly
Site Name	**Conc. & Date**	**Conc. & Date**	**Run Time**	**Average**
Southwick	41.4 (09/06)	3.1 (09/15)	90.0 %	17.3
Wyandotte	41.6 (09/06)	3.5 (09/15)	96.7 %	16.8
Barret	40.4 (09/06)	3.4 (09/15)	90.0 %	18.1
Watson	30.7 (09/03)	5.6 (09/15)	100.0 %	15.6
Overall				**17**

The 24-hour average standard is 35 $\mu g/m^3$. Ref: 40 CFR Part 50, National Ambient Air Quality Standards for Particulate Matter.

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

	Annual Mean (ug/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]
Site Name	**2007[3]**	**2006**	**2005**	**2004**	**2003**	**2002**	**2001**					
Southwick/ *Firearms Trn*[1]	17.3	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]	**16.3**[2]
Wyandotte	16.8	15.2	16.5	14.1	15.4	17.5	17.7	**16.9**[2]	15.7	15.3	15.3	16.2
Barret	18.1	14.0	16.8	13.7	15.5	16.4	16.9	16.3	15.2	15.3	14.8	16.3
Watson	15.6	13.7	16.5	12.6	14.9	15.7	16.3	15.6	14.4	14.7	14.3	15.3

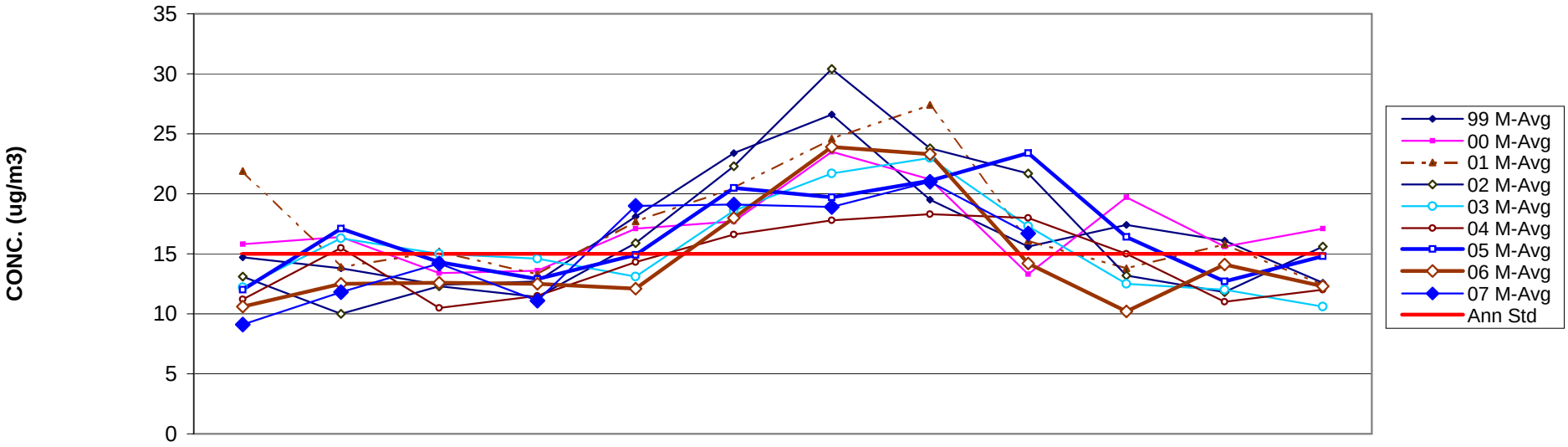
The annual average standard is 15.0 $\mu g/m^3$.

[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 PM2.5 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**	**16.7**				**5**

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	14.2	11.1	19	19.1	18.9	21	16.7			
Ann Std	15	15	15	15	15	15	15	15	15	15	15	15

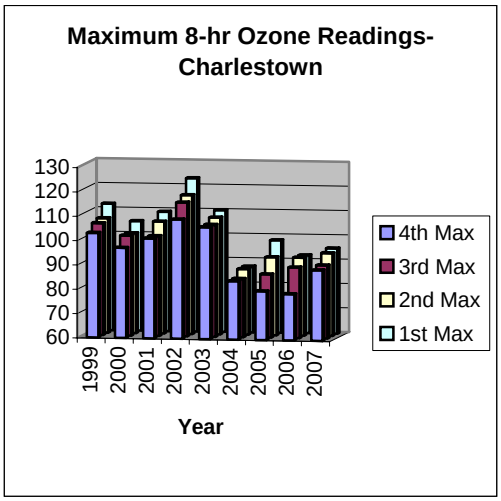
MONTH

October 9, 2007, 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	83	77	
111 / 85	1	1	5/22/2007	**85**	76	76	79	77	77	78	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
	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
127/88	2	1	6/17/2007	82	79	**85**	75	79	**88**	78	7
105/72			6/18/2007	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	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	*	*	75	**88**	74	64	78	
109/68			8/13/07	67	65	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	61	61	64	53	70	53	17
	1	1	9/3/07	74	72	**85**	74	72	70	64	
107/95	4	1	9/4/07	**89**	**95**	**87**	83	**87**	80	68	18
109/83			9/5/07	83	74	73	74	74	73	60	19
	2	1	9/19/07	*	77	**86**	65	78	**86**	61	
104/87	2	1	9/20/07	*	80	**87**	**85**	74	81	*	20
101/77			9/22/07	*	60	58	53	61	77	*	21
106/61			9/23/07	*	61	50	50	55	61	*	22
Total-16 days / 26 Exceed-ances	26	16		7	2	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.



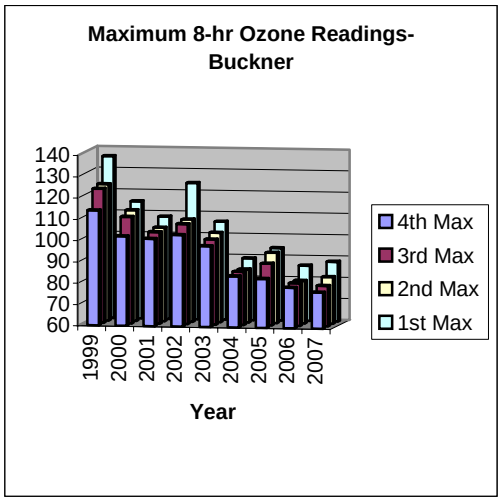


Table 2: Louisville 1998 – 2007 8-Hr Exceedance Summary

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	7	2	8	4	2	3	0	26	16	14	11

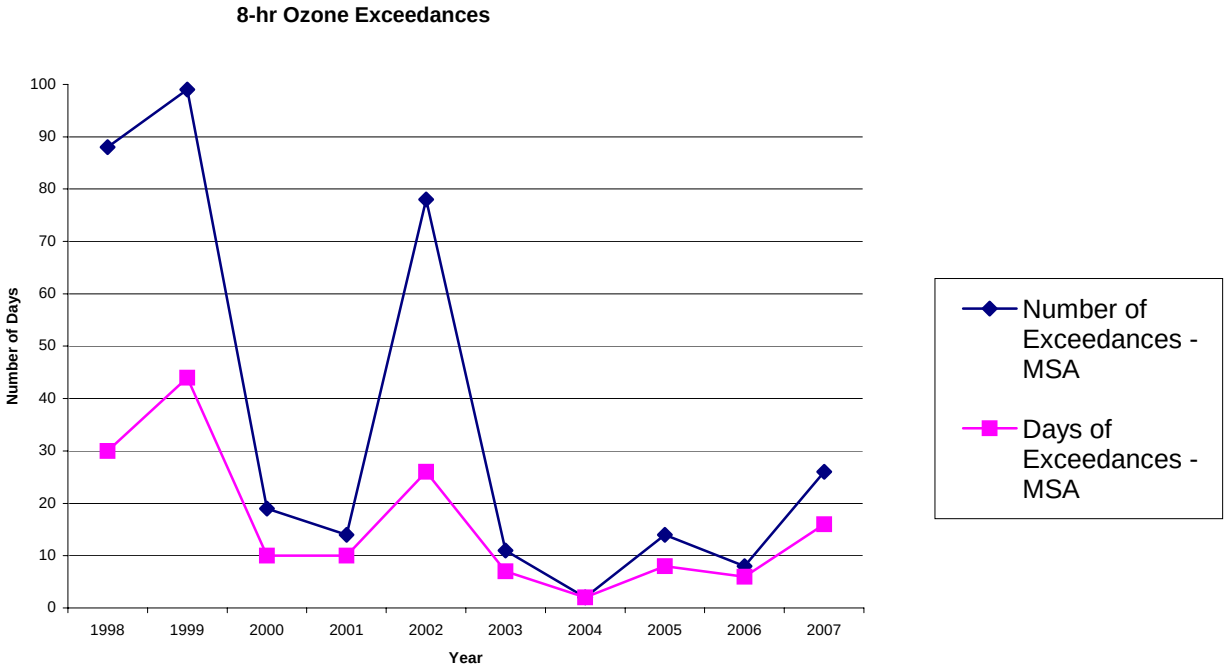


Table 3: 8-Hr Ozone 4th Maximum

Year	Louisville, MSA	Charles-Town (CH)	New Albany (NA)	Bates (BA)	Watson (WS)	WLKY-TV (WK)	Buckner (BK)	Shepherdsville (SH)
2007	**89**	**89**	80	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

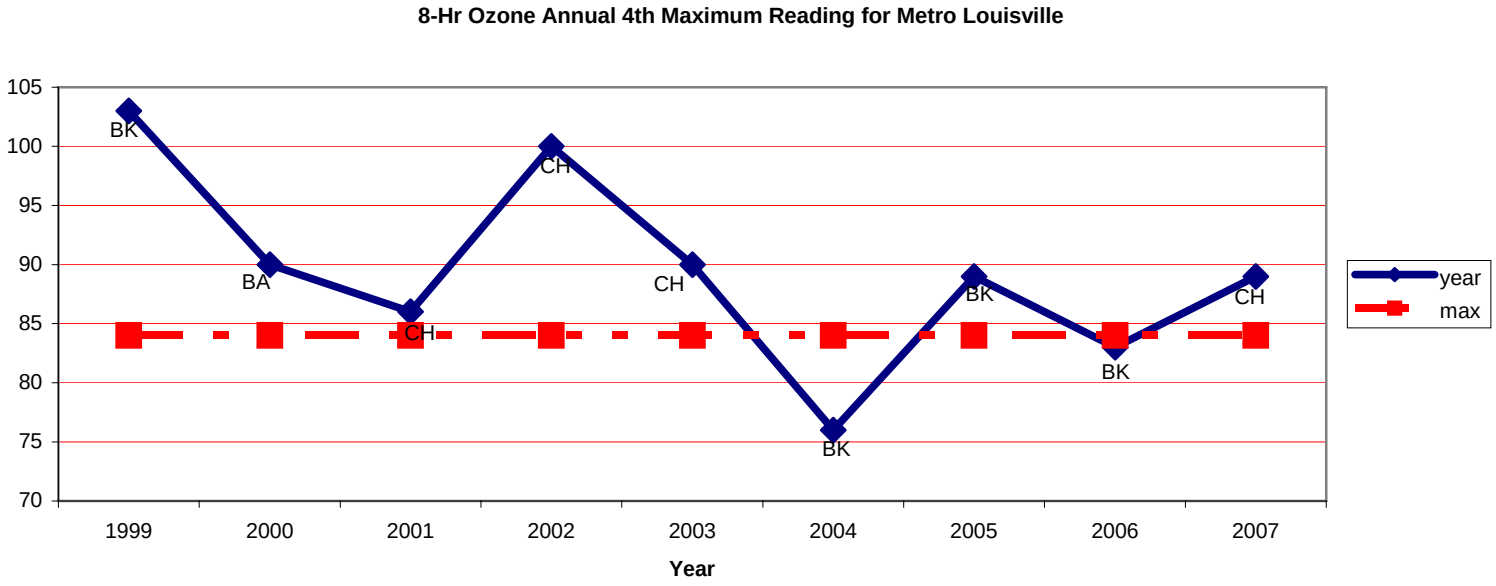
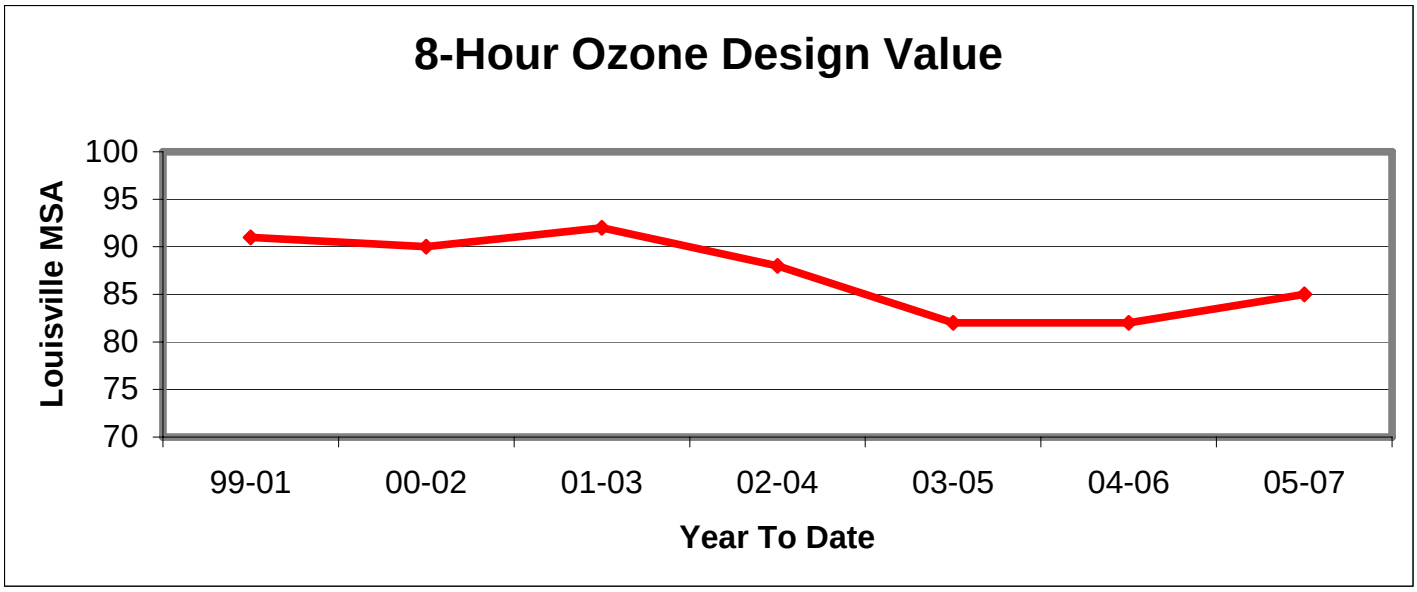


Table 4: 8-Hour Ozone Design Value Summary

Year	Louisville, MSA	Charles-town	New Albany	Bates	Watson	WLKY-TV	Buckner	Shepherdsville
05-07 Avg.	**85 BK**	82	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
Louisville MSA
100
95
90
85
80
75
70
99-01
00-02
01-03
02-04
03-05
04-06
05-07
Year To Date