

September 11, 2006

2006 Louisville, MSA 8-Hr Ozone Monitoring Report

(Data are not quality assured)

Table 1: 2006 8-Hr Ozone Monitoring Summary Report

> 8-hour exceedances - 8 exceedances

| 8-Hour FCST /Max. ppb | # 8-Hour Exceedances | # of Day 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 | # AQA |
|------------------------------|----------------------|---------------------------|---------|-------------------------------|------------------------------|-----------------------------|------------------------------|-------------------------------|----------------------------|------------------------------------|-------|
| 67/77 | | | 5/24/06 | 42 | 71 | 68 | <u>77</u> | 69 | 73 | <u>71</u> | |
| 78/59 | | | 6/6/06 | 48 | 59 | 64 | 55 | 56 | 78 | 59 | |
| 75/80 | | | 6/17/06 | <u>79</u> | 74 | 68 | 73 | 67 | 80 | 71 | |
| 52/82 | | | 6/26/06 | 68 | 70 | 60 | 82 | 61 | 72 | 63 | |
| 74/79 | | | 7/1/06 | 75 | 76 | 78 | 78 | 67 | 79 | 73 | |
| 73/78 | | | 7/2/06 | 74 | 75 | 76 | 72 | <u>67</u> | 67 | 78 | |
| 79/82 | | | 7/8/06 | 63 | 82 | 54 | 72 | 58 | 59 | 62 | |
| 85/75 | | | 7/16/06 | 60 | 62 | 55 | 75 | 51 | 61 | 67 | 1 |
| 88/80 | 1 | 1 | 7/17/06 | 87 | 69 | 61 | 54 | 66 | 80 | 66 | 2 |
| 87/101 | 3 | 1 | 7/18/06 | 90 | 101 | 60 | 89 | 70 | 60 | 72 | 3 |
| 85/74 | | | 7/19/06 | 67 | 74 | 52 | 65 | 53 | 66 | 57 | 4 |
| 80/85 | 1 | 1 | 7/25/06 | 73 | 64 | <u>74</u> | 58 | 50 | 85 | 50 | |
| 73/86 | 1 | 1 | 7/31/06 | 67 | 61 | 54 | 54 | 51 | 86 | * | |
| 87/66 | | | 8/1/06 | 52 | 50 | 50 | 47 | 36 | 66 | 48 | 5 |
| 85/65 | | | 8/2/06 | 56 | 56 | 47 | 38 | 38 | 65 | 44 | 6 |
| 81/92 | 1 | 1 | 8/17/06 | 92 | <u>76</u> | 78 | 59 | 81 | <u>83</u> | 64 | |
| 88/75 | | | 8/24/06 | 70 | 75 | 61 | 68 | 63 | 72 | 69 | 7 |
| 82/86 | 1 | 1 | 8/25/06 | 68 | 63 | 70 | 66 | 67 | 86 | 69 | 8 |
| 4th Max. | | | | 79 | 76 | 74 | 77 | 67 | 83 | 71 | |
| Total-6 days / 8 Exceedances | 8 | 6 | 0 | 3 | 1 | 0 | 1 | 0 | 3 | 0 | 8 |

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. *Site down-no data for that day

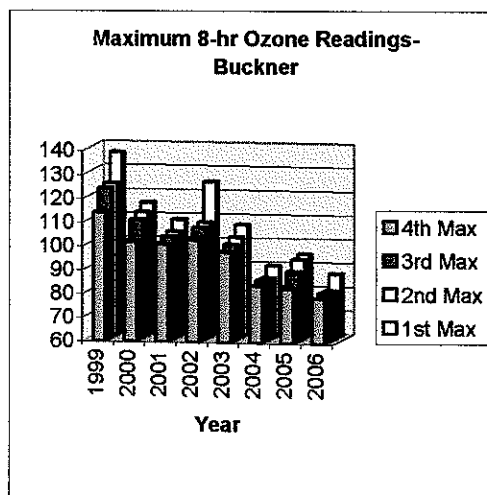
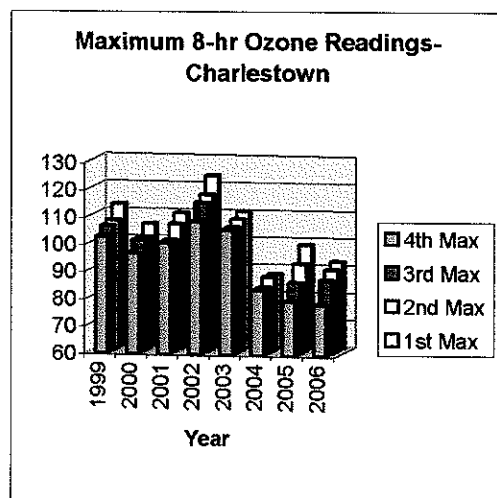


Table 2: Louisville 1998 – 2006 8-Hr Exceedance Summary

| Year | Charlestown | New Albany | Bates | Watson | WLKY-IV | 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 |

8-hr Ozone Exceedances

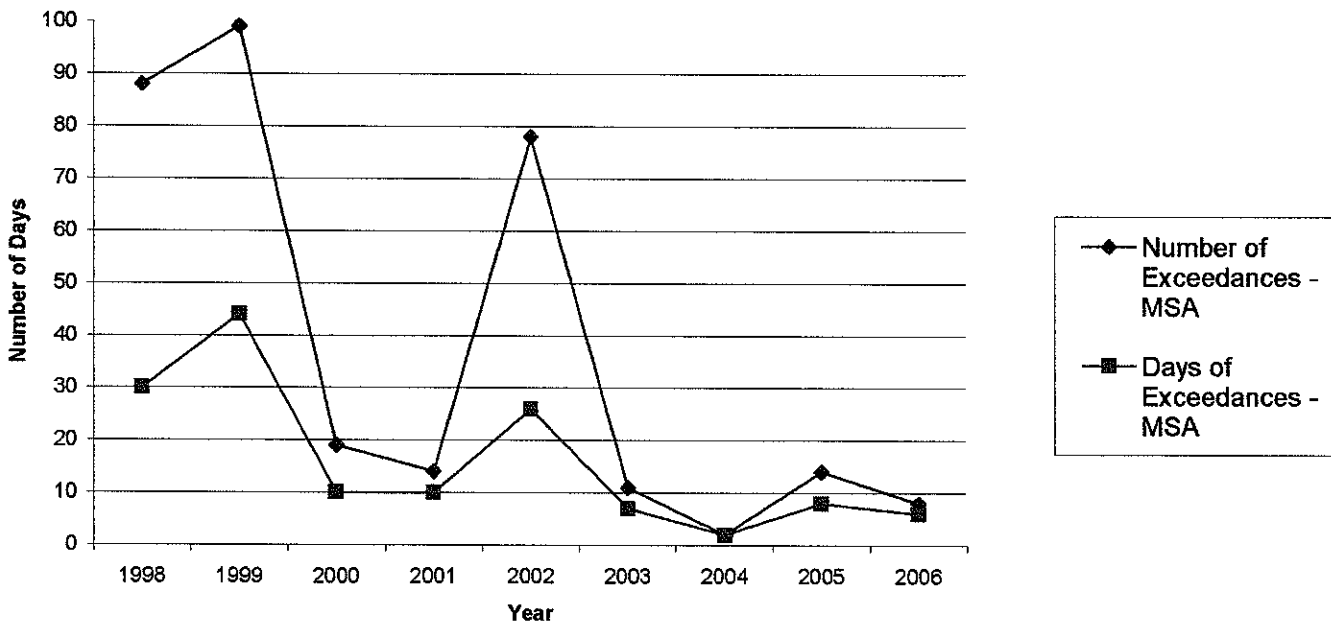


Table 3: 8-Hr Ozone 4th Maximum

| Year | Louisville, MSA | Charles-Town (CH) | New Albany (NA) | Bates (BA) | Watson (WS) | WLKY-TV (WK) | Buckner (BK) | Shepherds-ville (SH) |
|------|-----------------|-------------------|-----------------|------------|-------------|--------------|--------------|----------------------|
| 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

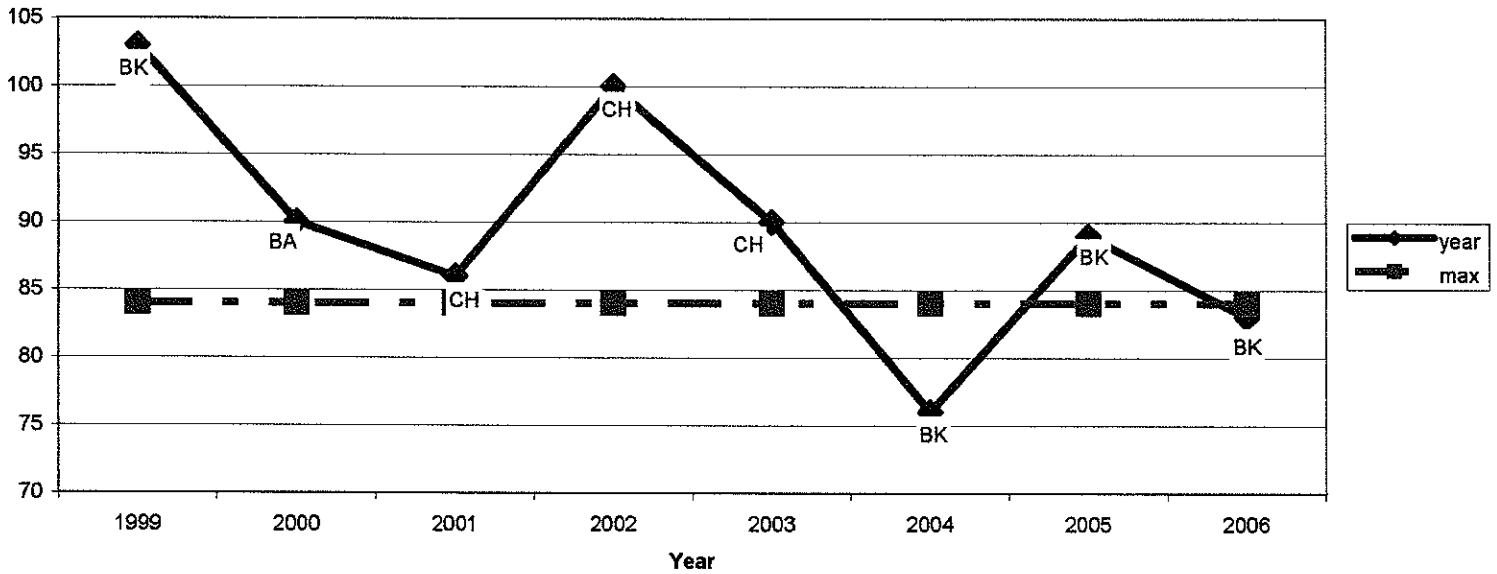
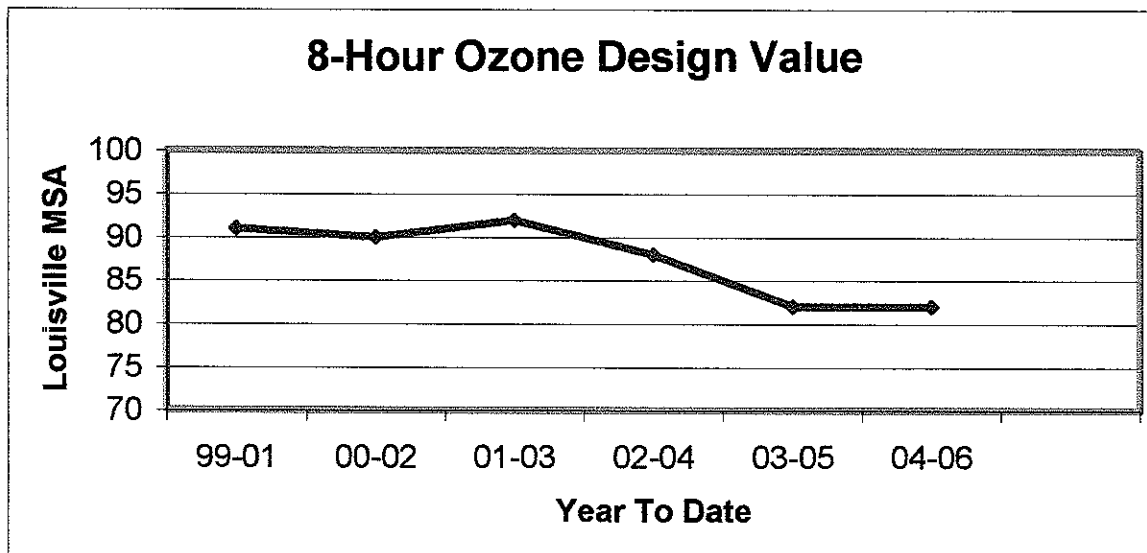


Table 4: 8-Hour Ozone Design Value Summary

| Year | Louisville, MSA | Charleston | New Albany | Bates | Watson | WLKY-TV | Buckner | Shepherdsville |
|------------|-----------------|------------|------------|-------|--------|---------|---------|----------------|
| 04-06 Avg. | 82 BK | 77 | 75 | 74 | 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.



INTEROFFICE MEMORANDUM

Date: October 09, 2006
 To: Arthur L. Williams, Director
 From: Arthur Chang, Technical Services Supervisor
 Re: September 2006 FRM PM_{2.5} Monitoring Update Report

This is a report of September 2006 Federal Reference Method PM_{2.5} monthly averages, annual averages, 3-year annual design values, and year-to-year comparison data summaries. (These data are subject to further quality assurance and are not final.)

September 2006

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 | 29.5 (09/09) | 3.3 (09/23) | 73.3 % | 15.2 |
| Wyandotte | 30.7 (09/09) | 3.7 (09/23) | 93.3 % | 14.5 |
| Barret | 26.1 (09/09) | 3.4 (09/23) | 100.0 % | 13.1 |
| Watson | 21.2 (09/08) | 5.6 (09/20) | 80.0 % | 11.5 |
| Overall | | | | 14.2 |

The 24-hour average standard is 65 µg/m³.

Table 2. PM_{2.5} Design Values and Year-to-Date Annual Mean Comparisons

| Site Name | Annual Mean (ug/m³) | | | | | | | Annual Design Values (2000-2002) | Annual Design Values (2001-2003) | Annual Design Values (2002-2004) | Annual Design Values (2003-2005) | Annual Design Values (2004-2006)³ |
|---|---------------------------------------|-------------|-------------|-------------|-------------|----------------------------|-------------|---|---|---|---|---|
| | 2006³ | 2005 | 2004 | 2003 | 2002 | 2001 | 2000 | | | | | |
| Southwick/ <i>Firearms Trn¹</i> | 15.7 | 16.7 | 14.6 | 15.4 | 17.2 | 17.1/ 18.7 ¹ | 17.3 | N/A | N/A | 15.9² | 15.6² | 15.6² |
| Wyandotte | 16.0 | 16.6 | 14.1 | 15.2 | 17.5 | 17.7 | 16.7 | 17.3² | 16.8² | 15.6 | 15.3 | 15.5 |
| Barret | 15.3 | 16.8 | 14.0 | 15.2 | 16.3 | 16.9 | 16.7 | 16.6 | 16.1 | 15.2 | 15.3 | 15.3 |
| Watson | 14.8 | 16.5 | 12.7 | 15.1 | 15.3 | 16.3 | 16.8 | 16.1 | 15.5 | 14.4 | 14.7 | 14.6 |

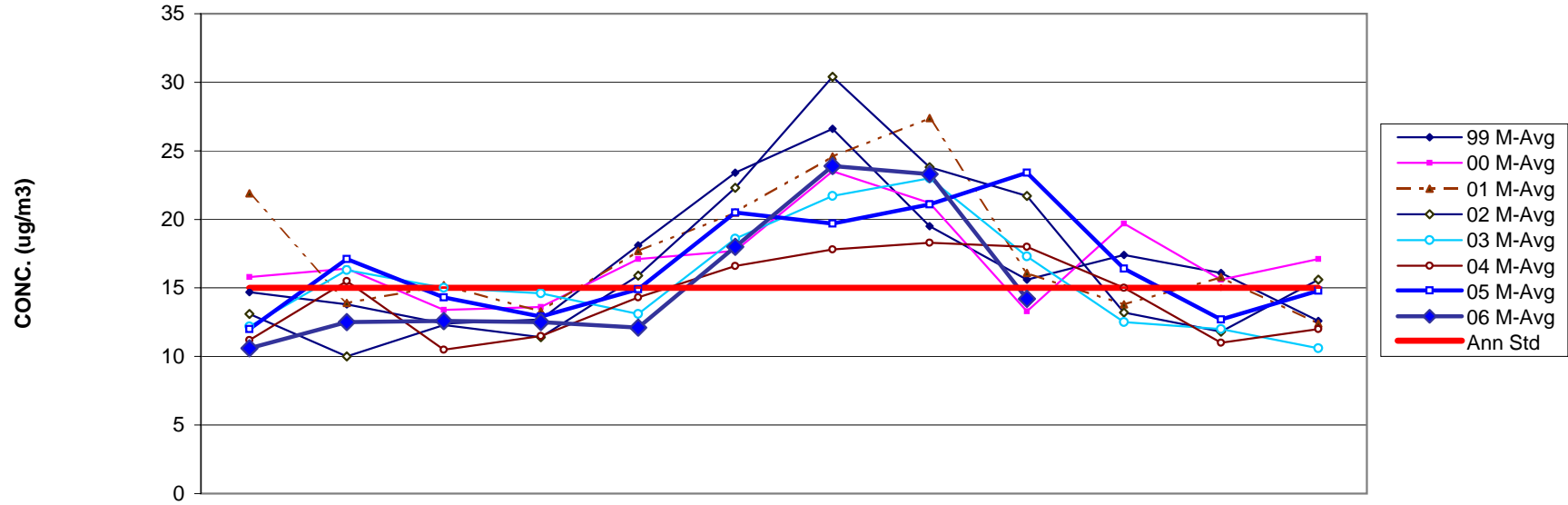
The annual average standard is 15.0 µg/m³.

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 2006.

LOUISVILLE METRO FRM PM2.5 MONTHLY AVERAGES TRENDS FOR 1999 - 2006



| | 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 | | | |
| Ann Std | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |

MONTH