



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

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June 5, 2009

Mr. Bharat Mathur  
Acting Regional Administrator  
U.S. EPA, Region 5  
77 West Jackson Boulevard  
Chicago, Illinois 60604

Re: Section 182(f) NO<sub>x</sub> Exemption Request

Dear Mr. Mathur:

The Indiana Department of Environmental Management (IDEM) requests an exemption from the Reasonably Available Control Technology (RACT) requirement for major stationary sources of oxides of nitrogen (NO<sub>x</sub>) for Lake and Porter counties in Indiana, as provided under Section 182(f) of the 1990 Clean Air Act Amendments. RACT is included as part of the implementation of the 1997 eight-hour ozone standard for Subpart 2, moderate nonattainment areas. Specifically, this request seeks to exempt major stationary sources of NO<sub>x</sub> (as defined in Section 302 and Subsections 182(c), (d), and (e) of the CAA) from the RACT requirements of section 182(b)(2).

In accordance with Section 182(f)(1)(A), this petition demonstrates that "...Additional reductions of oxides of nitrogen would not contribute to attainment of the national ambient air quality standard for ozone in the area...". The "not contribute to attainment" test was prepared in conformance with the United States Environmental Protection Agency (U.S. EPA) document, "Guidance on Limiting Nitrogen Oxides Requirements Related to 8-Hour Ozone Implementation", January 2005.

Lake and Porter counties have quality assured monitoring data for 2006 through 2008 which demonstrate that the area has attained the 8-hour ozone standard for the past three years (see enclosure). The accompanying request for redesignation to attainment for this area provides the monitoring and emissions data to support this action. Further, the accompanying attainment demonstration shows that the area not only has achieved attainment, but through photochemical modeling, demonstrates that the area will continue to achieve the standard by an increasing margin of safety well into the future.

A large number of NO<sub>x</sub> sources in these counties, and the surrounding areas, are subject to Indiana's NO<sub>x</sub> SIP rule, 326 IAC 10-4. This rule, together with other control measures, has reduced ozone to levels below the National Ambient Air Quality Standards (NAAQS) without implementation of NO<sub>x</sub> RACT. Therefore, additional reductions of oxides of nitrogen would not contribute to attainment of the NAAQS for ozone in the area and the area is eligible for a waiver of these requirements, as specified in Section 182(f)(1)(A) of the CAA.

B. Mathur  
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If you have any questions, please feel free to contact Daniel Murray, Assistant Commissioner, Office of Air Quality at (317) 232-8222.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tom Easterly', with a long horizontal line extending to the right.

Thomas W. Easterly  
Commissioner

TWE/sad/cp

Enclosure: Ambient Ozone Monitoring Data

cc: Cheryl L. Newton, U.S. EPA Region 5  
John Mooney, U.S. EPA Region 5  
Dan Murray, IDEM-OAQ  
Scott Deloney, IDEM-OAQ  
Christine Pedersen, IDEM-OAQ

## Enclosure

### Ambient Ozone Monitoring Data for Lake and Porter Counties

Three (3) complete years of ozone monitoring data are required to demonstrate attainment at a monitoring site. Table 1 outlines the annual fourth high values and three-year design values for 2003 through 2008 for the five active monitoring sites in Indiana's portion of the nonattainment area. Table 2 outlines the annual fourth high values and three-year design values for 2003 through 2008 for the twenty active monitoring sites within Illinois' portion of the nonattainment area. None of the twenty-five monitors has a 2006 through 2008 design value greater than 0.077 ppm.

**Table 1 Monitoring Data for Lake and Porter Counties  
(Annual 4<sup>th</sup> High and Design Values in ppm)**

Site	2003	2004	2005	2006	2007	2008	03-05 avg	04-06 avg	05-07 avg	06-08 avg
GARY	0.076	0.064	0.089	0.073	0.085	0.062	0.076	0.075	0.082	0.073
HAMMOND	0.081	0.067	0.087	0.075	0.077	0.068	0.078	0.076	0.079	0.073
OGDEN DUNES	0.077	0.069	0.090	0.070	0.084	0.069	0.078	0.076	0.081	0.074
VALPARAISO	0.082	0.072	0.078	0.071	0.080	0.061	0.077	0.073	0.076	0.070
WHITING	N/A	0.064	0.088	0.081	0.088	0.062	N/A	0.077	0.085	0.077

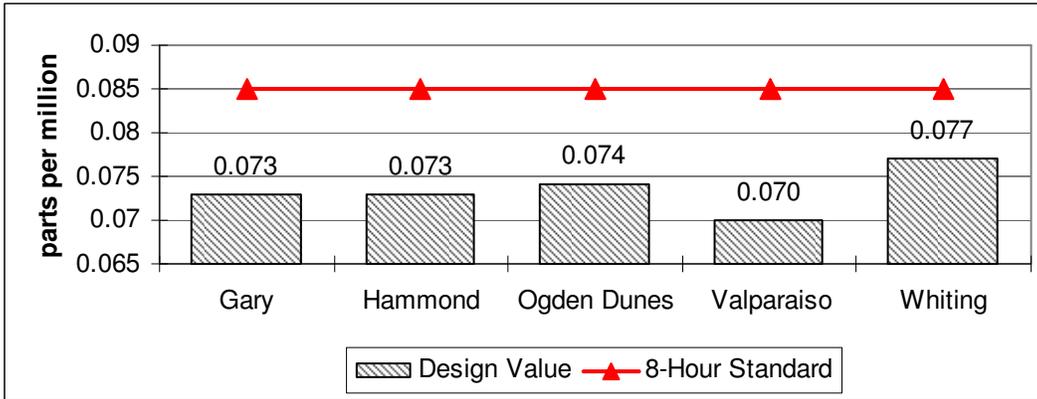
**Table 2 Monitoring Data for Illinois Sites  
(Annual 4<sup>th</sup> High and Design Values in ppm)**

County	Site	2003	2004	2005	2006	2007	2008	03-05 avg	04-06 avg	05-07 avg	06-08 avg
Cook	Alsip	0.077	0.065	0.084	0.078	0.085	0.066	0.075	0.075	0.082	0.076
Cook	Chicago-Cheltenham	0.080	0.067	0.076	0.075	0.082	0.066	0.074	0.073	0.078	0.074
Cook	Chicago-Adams	0.078	0.069	0.080	0.073	0.084	0.058	0.076	0.074	0.080	0.071
Cook	Chicago-Luella	0.069						0.069			
Cook	Chicago-Ellis Ave	0.067	0.054	0.084	0.070	0.079	0.063	0.068	0.069	0.076	0.070
Cook	Chicago-Ohio St	0.075	0.060	0.081	0.065	0.075	0.063	0.072	0.068	0.073	0.067
Cook	Chicago-Lawndale	N/A	0.068	0.084	0.075	0.080	0.066	0.076	0.075	0.080	0.074
Cook	Chicago-Hurlbut St	0.077	0.067	0.083	0.077	0.079	0.063	0.076	0.075	0.080	0.073
Cook	Lemont	0.075	0.067	0.086	0.070	0.085	0.071	0.076	0.074	0.080	0.075
Cook	Cicero	0.070	0.059	0.075	0.060	0.068	0.060	0.068	0.064	0.066	0.062
Cook	Des Plaines	0.073	0.064	0.079				0.072	0.072		
Cook	Northbrook	0.080	0.068	0.081	0.068	0.076	0.063	0.076	0.072	0.076	0.069
Cook	Evanston	0.082	0.075	0.082	0.072	0.080	0.058	0.080	0.076	0.076	0.070
DuPage	Lisle	0.066	0.065	0.078	0.062	0.072	0.057	0.070	0.068	0.070	0.063
Kane	Elgin	0.076	0.069	0.087	0.062	0.075	0.061	0.077	0.072	0.075	0.066
Lake	Waukegan	0.074	0.068	0.087	0.071	0.081	0.061	0.076	0.075	0.080	0.071
Lake	IL Beach St Pk	0.078	0.071	0.090	0.068	0.080	0.067	0.080	0.076	0.079	0.071
McHenry	Cary	0.079	0.068	0.087	0.057	0.074	0.063	0.078	0.071	0.073	0.064
Will	Sout	0.077	0.064					0.071	0.070		
Will	Essex Rd	0.073	0.068	0.077	0.068	0.071	0.057	0.073	0.071	0.072	0.065

Highlighted values represent the most recent monitoring data available

Graph 1 below visually demonstrates the design values for Indiana’s portion of the nonattainment area. The highest design value within Indiana’s portion of the nonattainment area is 0.077 ppm.

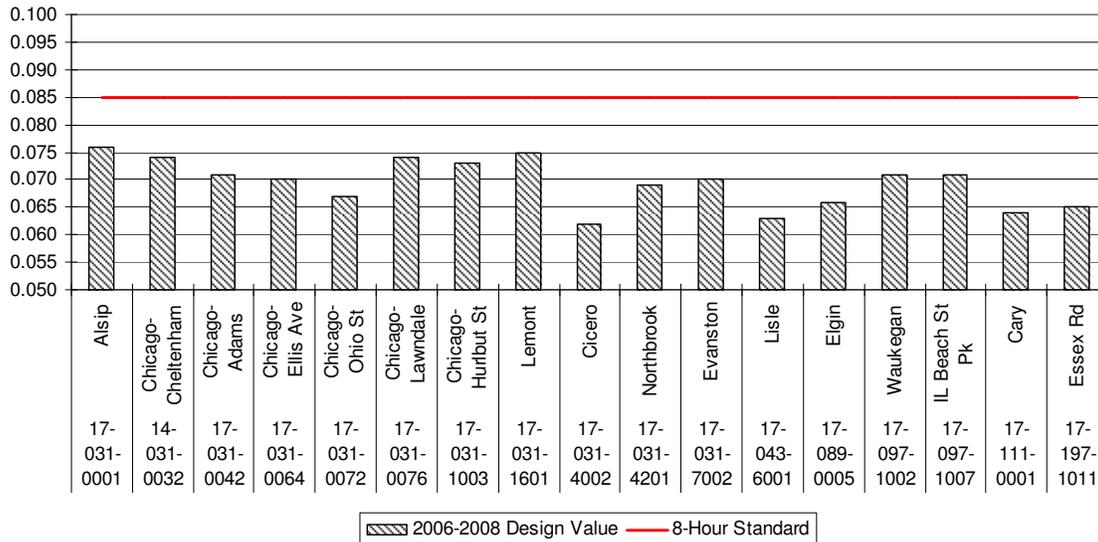
**Graph 1**  
**2006-2008 Design Values for Lake and Porter Counties**  
**(Indiana’s Portion of Nonattainment Area)**



Graph 2 illustrates the design values for the Illinois portion of the nonattainment area.

**Graph 2**  
**2006-2008 Design Values for Illinois’ Portion of Nonattainment Area in ppm**

2006-2008 Average



The design values for Lake and Porter counties, along with the nonattainment area in its entirety, demonstrate that the NAAQS for ozone has been attained. All 2006 through 2008 design values in the entire nonattainment area are less than or equal to 0.077 ppm.

Graph 3 shows the trend in design values for Lake and Porter counties over the past ten years.

**Graph 3 Trends in Northwest Indiana 8-hour Design Values  
1998 through 2008**

