2010 NO_2 NAAQS (75 Fed. Reg. 6474)
District of Columbia Infrastructure SIP
April 2014

ATTACHMENT B

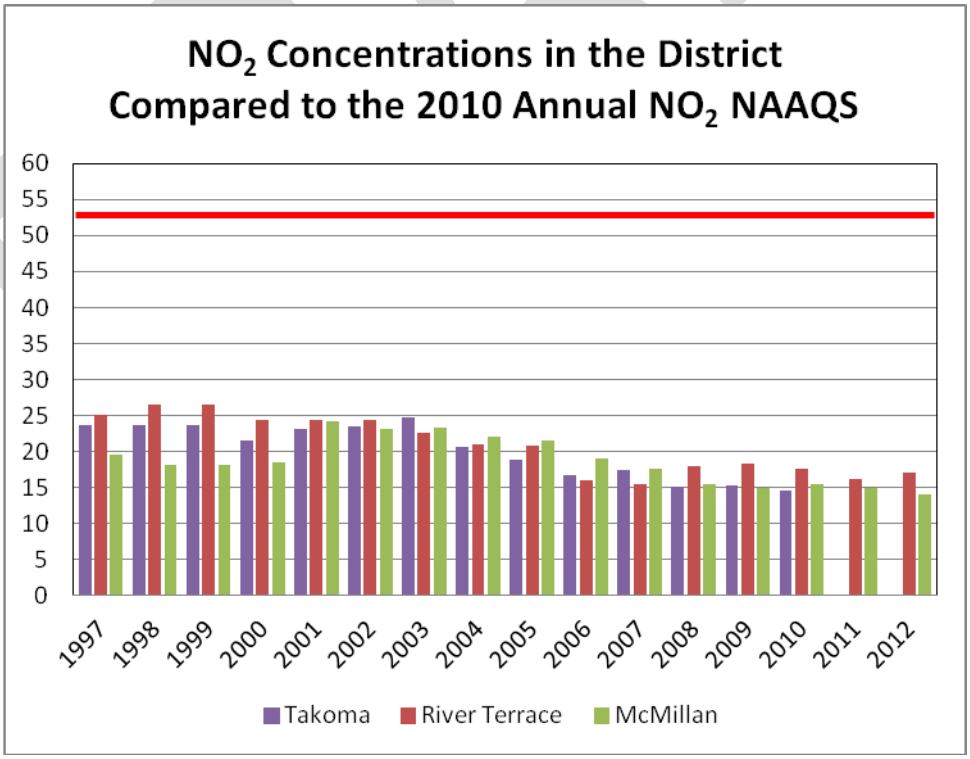
Section 110(a)(2)(D)(i): Interstate Transport Provisions, Part I
Include an explanation in support of the conclusion that no source will contribute significantly to nonattainment or interfere with maintenance of the SO2 NAAQS in another state.

The District of Columbia (District) was designated as an unclassifiable/attainment area for the 2010 nitrogen dioxide (NO_2) national ambient air quality standards (NAAQS)[1]. This is at least in part because no source in the District contributes significantly to nonattainment or interferes with maintenance of the 2010 NO_2 NAAQS in another state. No source in the District has ever caused a violation of the NO_2 NAAQS and no source emits quantities that are potentially of concern.

No NO_2 NAAQS Violations

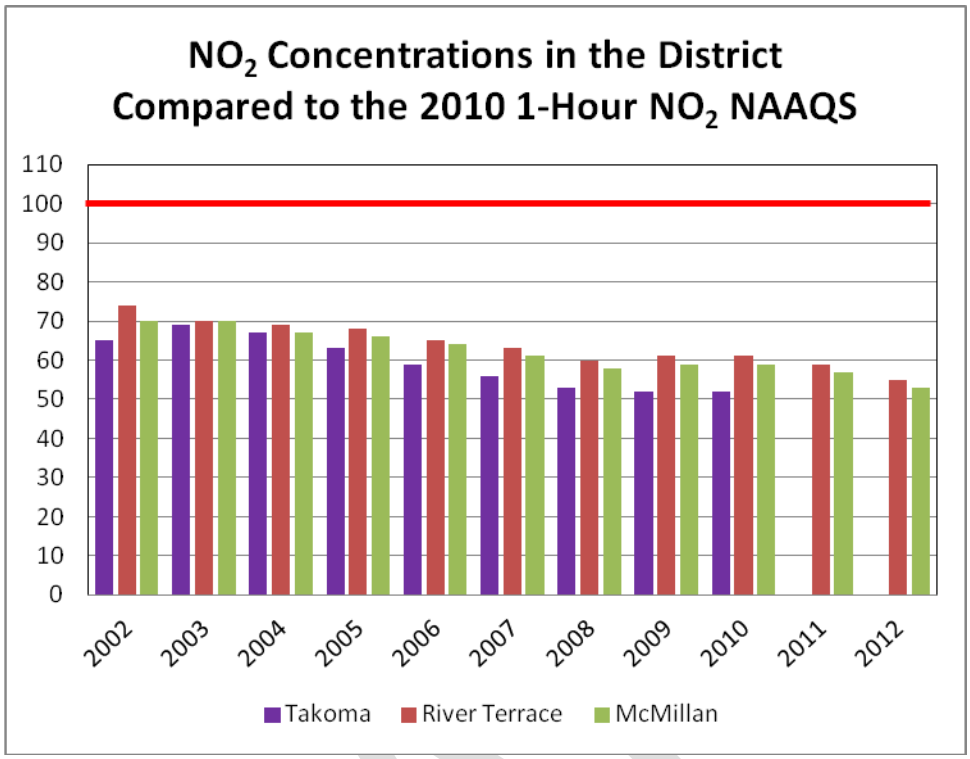
Currently, the District operates three ambient air monitors to measure NO_2: one at the River Terrace site, one at the McMillan NCore site, and one at a Takoma site[2]. None of the monitors have revealed a violation of the 2010 NO_2 standard. Figure 1 shows that the District's design values for NO_2 have remained well below the annual and 1-hour NAAQS for years.

Figure 1. Monitored NO_2 Concentrations in the District Over Time (parts per billion)



[1] Letter from the U.S. EPA to the Honorable Vincent C. Gray (June 29, 2011).
[2] The NO_2 monitor at the Takoma School site stopped operating in 2011 due to a building fire. NO_2 monitoring resumed at a nearby Takoma Recreation Center site in January 2013.

CONTINUED: Monitored NO_2 Concentrations in the District Over Time (parts per billion)



Insignificant Contribution (Prong 1)

NO_2 is one component of oxides of nitrogen (NO_x) and is generally used as an indicator for the larger group of NO_x. Of all NO_x emissions generated in the Washington DC-MD-VA nonattainment area, the District contributes a nominal portion – about nine percent (2011 NEI Version 1). This implies that in general, NO_2 emissions are small.

- Currently, there are no EGUs or other large industrial sources of NO_x emissions in the District.
- The District has only one "non-EGU" facility with units large enough (>250 mmBTU/hr in size) to be applicable under EPA's NO_x SIP Call: the U.S. General Services Administration (GSA).
- The only other source that comes anywhere close to emitting roughly 100 tons per year is the U.S. Capitol Power Plant (CPP).

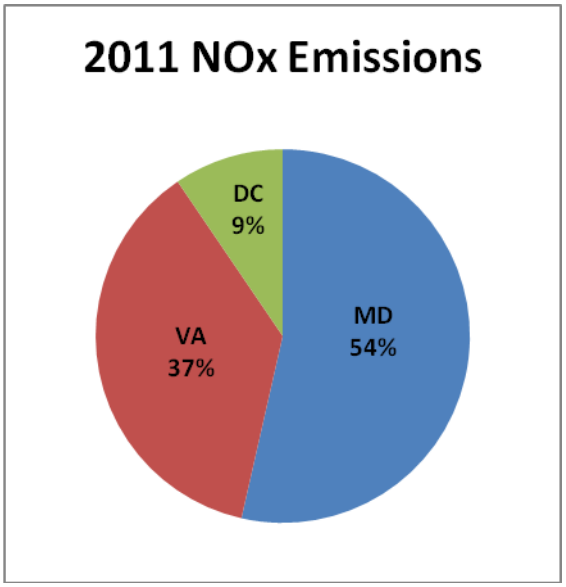


Figure 2. Point Source NO_x Emissions in the District (tons per year)

Facility	2008	2009	2010	2011	2012
GSA	193.5	215	214.6	195.5	185.9
CPP	107.1	137.7	106.1	105.5	94.7
All Major Sources	*676.1*	*740.9*	*944.9*	*702.9*	*441.7*

Both GSA and CPP have plant-wide emissions limits in their Title V permits that will continue to at least cap potential annual NO_x emissions[3], and thus NO_2 emissions, into the future. Every other major source currently operating in the District has emitted less than 30 tons per year (tpy) of NO_x since 2008.

There is also evidence that emissions of NO_2 will not increase significantly. Because the District was in serious nonattainment of the 1-hour ozone NAAQS, CAA anti-backsliding provisions mean that the major source permitting threshold for NO_x remains at 25 tpy (20 DCMR § 399). The District's new source review program (20 DCMR Chapter 2) and prevention of significant deterioration federal implementation plan (PSD FIP) will continue to sufficiently control emissions due to facility changes. Additional NO_x controls in the District's State Implementation Plan (SIP) include NO_x RACT (20 DCMR § 805), a high enhanced inspection and maintenance (I/M) program (see 40 C.F.R. § 52.470(c)), and numerous Federal NO_x measures.

No Interference with Maintenance (Prong 2)

There are no nonattainment areas for NO_2 within a 50-kilometer radius of the District, which is the standard distance generally considered by EPA for air dispersion modeling (Appendix W to 40 C.F.R. Part 51). The most recent design values (DVs) computed using quality-assured and certified ambient air modeling data, based on the Federal Reference Method or an equivalent monitoring measurement, and reported to EPA's Air Quality System (AQS) in states bordering the District are in Figure 3:

Figure 3. Recent Design Values at Monitors in Maryland and Virginia

State	County	Site	2008-2010	2009-2011	2010-2012
ANNUAL (53 ppb)					
MD	Baltimore	240053001	13	13	12
MD	Baltimore city	245100040	18	18	16
MD	Prince George's	240330030	-	-	9
VA	Arlington	510130020	13	12	12
VA	Charles City	510360002	5	6	5
VA	Hampton city	516500008	-	5	5
VA	Henrico	510870014	11	10	9
VA	Loudoun	511071005	8	8	7

[3] CPP's recently approved Title V permit reduced the plant-wide emission limit from the equivalent of 925 tpy for NO_x down to 197 tpy for NO_x (see DDOE, "District Issues Air Quality Permits for Cogeneration Equipment at the U.S. Capitol Power Plant" (June 6, 2013), found at: http://ddoe.dc.gov/release/district-issues-air-quality-permits-cogeneration-equipment-us-capitol-power-plant). GSA's existing Title V permit (as of July 28, 2000) includes annual plant-wide emissions limits for NOx of 268 tpy for the Central Heating and Refrigeration Plant (which no longer exists) and 256 tpy for the West Heating Plant.

State	County	Site	2008-2010	2009-2011	2010-2012
VA	Norfolk city	517100024	-	10	8
VA	Prince William	511530009	5	6	5
VA	Richmond city	517600024	12	10	10
VA	Roanoke	511611004	8	7	7
VA	Rockingham	511650003	10	9	9
1-HOUR (100 ppb)					
MD	Baltimore	240053001	52	50	48
MD	Baltimore city	245100040	57	58	57
VA	Arlington	510130020	50	49	47
VA	Charles City	510360002	57	55	52
VA	Henrico	510870014	-	41	41
VA	Loudoun	511071005	40	41	39
VA	Prince William	511530009	30	28	28
VA	Richmond city	517600024	54	52	51
VA	Roanoke	511611004	38	38	39

Source: "Design Values" on EPA website at: http://www.epa.gov/airtrends/values.html; only data with completeness determinations

All nearby DVs are well below the NAAQS for NO_2 – none are close to half the annual NAAQS and all are hovering near or below half the 1-hour NAAQS. Since there are also no nearby areas violating the NO_2 NAAQS, the District has no reason to believe that any monitors identified in the table above may have difficulty maintaining the NO_2 standards, particularly as a result of emissions from the District.

Conclusion

The District does not have any substantial sources of NO_2 within its borders, nor is not aware of any plans to establish any substantial new sources. Federally enforceable SIP provisions that limit NO_x, and thus NO_2, will prevent emissions from increasing to worrisome levels. Thus, it is reasonable to conclude that no source in the District will contribute significantly to nonattainment or interfere with maintenance of the NAAQS in any other state.