The State of New Jersey
Department of Environmental Protection

State Implementation Plan (SIP) Revision for the Attainment and Maintenance of the Fine Particulate Matter ($PM_{2.5}$) National Ambient Air Quality Standards

Final
Redesignation Request and Maintenance Plan
For
Annual 15 µg/m^3 and Daily 35 µg/m^3
$PM_{2.5}$ National Ambient Air Quality Standards

Appendix XI
Public Participation and Response to Comments

A public hearing on this proposed State Implementation Plan (SIP) revision was held on Wednesday, September 5, 2012 at 10:00 a.m. at the New Jersey Department of Environmental Protection, 401 E. State St., 6th Floor, Large Conference Room, Trenton, New Jersey. This hearing was held in accordance with the provisions of Section 110(a)(2) of the Clean Air Act, 42 U.S.C. §7410; 40 C.F.R. §51.102(a)(1), the Air Pollution Control Act (1954), N.J.S.A. 26:2C-1 et seq., and the Administrative Procedure Act, N.J.S.A. 52:14 B-1 et seq. Written comments relevant to the proposal were accepted until the close of business, Thursday, September 13, 2012.

Notice of the proposed SIP and the public hearing was issued on several Department air quality listservs. Approximately 1,622 interested parties on the listservs were emailed. In addition, 82 interested parties not on the Department's listservs were emailed the notice, along with 76 air quality contacts from other states and air quality regional organizations and eight contacts at the USEPA. Notice was also published on the Department's website and mailed to 10 interested parties. Additional notification consisted of faxing notice to 14 newspapers at the New Jersey State House; emailing notice to one State House newspaper; and mailing notice to fourteen public libraries throughout the State and to the Department's three regional Compliance and Enforcement offices. These notices were all issued at least 30 days prior to the public hearing and close of comment period. In addition, notice of the proposed SIP and hearing appeared in the August 20, 2012 edition of the New Jersey Register (40 N.J.R. 2132 (a)).

Attachment 1 contains the notice announcing the availability of the proposed SIP revision and the public hearing.

Attachment 2 contains documentation of the notices and the New Jersey Register.

During the hearing and comment period, comments were received on the proposed SIP revision. The following persons submitted written comments or made oral comments at the public hearing:

1. Kate Millsaps, New Jersey Chapter of the Sierra Club (NJ Sierra Club)
2. Jeff Tittel, New Jersey Chapter of the Sierra Club (NJ Sierra Club)
3. Elizabeth Toba Pearlman, Consultant for the Sierra Club (DC Sierra Club)
4. Joshua Stebbins, Sierra Club (DC Sierra Club)
5. Ana Baptista, Ironbound Community Corporation (ICC)
6. Nicky Sheats, on behalf of the New Jersey Environmental Justice Alliance (NJEJA)
7. David Pringle, NJ Environmental Federation, Garden State Chapter of Clean Water Action (NJEF)

The submitted comments and the State's responses are summarized below. The general comments are presented first, followed by comments relating to specific aspects of the proposal. In some instances like comments have been grouped together. After each comment is the name of the commenter(s) and their affiliation(s).

General Statements

1. **Comment:** The commenter opposes the State's request to designate New Jersey as being in attainment of the Federal $PM_{2.5}$ standards. Nicky Sheats, NJEJA

2. **Comment:** The commenter appreciates all the achievements of the State in improving New Jersey's air quality but the State's proposal inferring that New Jersey's air quality is good enough is dangerous and premature. The State's claim is not only inaccurate but also wrongly

suggests victory in air quality and that we can move on. David Pringle, NJEF

3. **Comment:** The commenter states that the administration is trying to play games with statistics instead of cleaning up our air. NJ Sierra Club

4. **Comment:** The commenters urge the State to withdraw the request to declare New Jersey is in attainment and rather focus even harder on improving New Jersey's air quality. David Pringle, NJEF, NJ Sierra Club

5. **Comment:** The commenter states that redesignation from nonattainment to attainment for both annual and daily $PM_{2.5}$ should not be approved by the USEPA at this time because it fails to meet the requirements for redesignation. DC Sierra Club

Response to Comments # 1 through 5: A redesignation from nonattainment to attainment is an acknowledgement that the existing air quality is in compliance with the National Ambient Air Quality Standards (NAAQS) and is projected to be in compliance for at least 10 more years. It does not mean that New Jersey can backslide on existing emission reduction commitments in the State Implementation Plan, nor does it mean New Jersey will stop looking for ways to reduce air pollution. More details related to the commenters' statements are discussed below throughout this document.

6. **Comment:** The commenter endorses the comments made by the ICC and the NJEJA. David Pringle, NJEF

Response: The Department acknowledges the commenter's support for other commenters' statements. The individual aspects of the comments are discussed below throughout this document.

Monitoring

Monitoring Network and Data

7. **Comment:** The data in the State's 2011 annual air quality report show $PM_{2.5}$ concentrations that are above the daily standard. Your daily standard design levels for 2010 and 2011 are still showing violations of the NAAQS and do not present a consistent pattern of attainment. Ana Baptista, ICC, Nicky Sheats, NJEJA

Response: As shown in the SIP, the design values for both the annual 15 $\mu g/m^3$ standard and daily 35$\mu g/m^3$ standard show compliance with the $PM_{2.5}$ NAAQS. The regulatory definition of meeting the NAAQS is that the average of three years of 12 consecutive quarters (or three years of data) is less than or equal to the standard (see Appendix N of 40 CFR Part 50, 4.2(a)). This is called the design value. The daily standard is based on the 98th percentile of all the daily averages at each site. For a sampler running everyday this would be the 7th highest value recorded. The standard does not base compliance on the maximum (or highest) concentrations.

There is no 2011 Department annual air quality report available to the public at the time of this comment. The most recent Department annual air quality report is for the 2010 fine particulate data, which shows the highest daily recorded concentrations at each site for the year. In 2010, ten monitoring sites in New Jersey measured "exceedences" of the 24-hour standard of 35 $\mu g/m^3$. These "exceedences" or "highest daily concentrations" are not the data (design values) used to determine compliance with the daily standard.

The United States Environmental Protection Agency (USEPA) conducted analyses on the monitoring data and found that New Jersey monitors are meeting the NAAQS with the 2007-2009 and 2008-2010 monitoring data. As discussed in the SIP, they issued final clean data determinations for New Jersey's northern and southern nonattainment areas for the annual standard, and they have issued proposed clean data determinations for the daily standard. For more details on how USEPA evaluated the data and came to their determinations see the Federal Registers at 75 FR 45076 (8-2-10), 75 FR 69589 (11-15-10), 77 FR 3223 (1-23-12), 77 FR 28782 (5-16-12), 77 FR 52626 (8-30-12) and October 2, 2012 (77 FR 60089) (10-2-12).

8. **Comment:** A more comprehensive system of monitoring should be implemented to provide a clearer picture of PM levels in the region. PM levels may require a different monitoring scheme altogether that includes near roadway monitors, local community scale monitors as well as regional monitors to paint a more complete picture of PM levels impacting people's health. The monitoring data used to reach this conclusion is inadequate, particularly for overburdened communities where much of the human exposure to PM is driven by near roadway and clusters of point source emissions. There have been no significant or sustained efforts to monitor ambient air quality in highly impacted areas of the State and there is no future commitment to sustained monitoring efforts in highly impacted communities. The State should demonstrate its commitment to environmental justice communities by developing a monitoring system that will yield the above-mentioned data.

   There is no monitoring station reflected in the data from the State's largest city in Newark. You reference a Newark based speciation monitoring site for $PM_{2.5}$ over a ten year period (2002-2011) yet the Newark monitoring station has not been in place for that time period. This Newark monitoring station has only been in place for a few years and is located a significant distance from any major roadways, point sources or other typical urban land use patterns. The stationary monitor that sat in the Ironbound community for a decade was removed in 2000 and never replaced. Ana Baptista, ICC

9. **Comment:** Rather than putting in place policies to clean up our air, the Governor is moving monitoring stations and eliminating ones in some of the most polluted areas such as the Ironbound section of Newark and Elizabeth. Close to 30 percent of the children in Newark have asthma and instead of improving air quality the State is closing the Ironbound monitoring station. We oppose the relocation and elimination of monitoring stations in some of the most polluted areas of the State such as the Ironbound section of Newark and Elizabeth. NJ Sierra Club

10. **Comment:** The State's Redesignation Request should not be granted until it adequately demonstrates that $PM_{2.5}$ concentrations in overburdened New Jersey communities are below Federal standards. Nicky Sheats, NJEJA

Response to Comments # 8 through 10: In order to determine compliance with the NAAQS for $PM_{2.5}$, the USEPA established criteria for the monitoring of ambient concentrations of $PM_{2.5}$ at 40 CFR 58. New Jersey has established monitors that meet and exceed these criteria at 21 locations as shown in Figure 2 in the SIP (Federal Reference Monitors (FRM)).

New Jersey's $PM_{2.5}$ monitoring network meets Federal requirements and provides data on a broad range of locations from urban to rural. The current network is adequate to determine compliance with the current NAAQS for $PM_{2.5}$ and was approved by the USEPA (per letters from the USEPA to the Department dated 9/7/2007, 9/30/2008, 9/8/2009, 11/8/2010 and 10/27/2011). It is the State's intent to install $PM_{2.5}$ monitoring at its near-roadway site when it is established in early 2013, regardless of whether the USEPA requires it.

The air monitoring network is not intended, nor required, to measure air quality in every community but to measure air quality that reasonably represents what the public is being exposed to in all areas of the State. Sites have never been removed or added for reasons other than good practice, such as meeting Federal siting requirements, legal issues regarding property access or security issues.

Comments regarding the air monitoring network can be submitted to the Department each year when the annual monitoring network plan is posted on the Department's website for review and comment.

For the 2007-2009 design value period, there were 20 monitors in New Jersey's $PM_{2.5}$ monitoring network. The monitor in the Columbia Lake Wildlife Management Area was started in September 2010. Fourteen of the monitors are shown in the graphs titled Figures 9 through 12 of the SIP. The Elizabeth Turnpike monitor was included in the SIP graphs. Four of the monitors in New Jersey are located in attainment counties, which is why they were not included in these graphs. Two of monitors in Newark and Camden were not included in these figures because they did not have three years of complete data. However, data from these monitors were included in the SIP in Appendix III.

a. Newark

The air monitor at the Newark Willis Center station (ID# 340130015) was located in Newark, Essex County, New Jersey. The monitor was discontinued on July 24, 2008 due to loss of access to the site (the property owner no longer approved of use of the site for monitoring purposes). Since there was no monitoring at this site for approximately half of 2008 to the present, design values were incomplete that involve 2008 or later years (2006-2008, 2007-2009, and 2008-2010). As shown in Tables 2 and 4 of Appendix III in the proposed and final SIP revision, the discontinued Newark monitor, ID# 340130015, showed annual data below the annual and daily $PM_{2.5}$ NAAQS in 2007 and 2008 (partial year data in 2008): 13.4 $\mu g/m^3$, 13.7 $\mu g/m^3$, 34.9 $\mu g/m^3$, and 28.7 $\mu g/m^3$, respectively. Tables 1 and 3 of Appendix III of the SIP show that the design values at this monitor met the annual standard from 2001 to 2007. Tables 1 and 3 of Appendix III also show that the 2006-2008 estimated design values, utilizing the partial year of 2008 data, is also below standards for the annual and daily NAAQS.

For the clean data determination for the daily standard (see references in response to comment #7), USEPA did a statistical analysis on the Newark monitor due to the incomplete data. The results of the USEPA's analysis produced design values of 30 $\mu g/m^3$ and 26 $\mu g/m^3$ for 2007-2009 and 2008-2010 monitoring periods, respectively. The design values for both time periods passed the statistical bootstrapping test, which provides statistical confidence that the monitor at Newark-Willis Center attained the daily $PM_{2.5}$ NAAQS.

A new monitor at the Newark Firehouse (ID# 340130003) was established on May 13, 2009. An alternative location in the Ironbound section of Newark could not be found. The location of the monitor was approved by the USEPA. As shown in Tables 2 and 4 of Appendix III in the proposed SIP revision, the new Newark monitor, ID# 340130003, measured concentrations below the annual and daily $PM_{2.5}$ NAAQS in 2010 and 2011: 9.2 $\mu g/m^3$, 10.5 $\mu g/m^3$, 24.0 $\mu g/m^3$, and 23.9 $\mu g/m^3$, respectively.

b. Camden

The Camden Lab station (ID# 340070003), which had been in operation since 1968, was unexpectedly discontinued on September 29, 2008 due to vandalism of the station. Design values for this site before it was discontinued are shown in Tables 5 and 7 in Appendix III of

the SIP revision. As shown in these tables, the 2005-2007 three year design value met the annual and daily standards. In addition, the annual design values show attainment since 2001. An evaluation of 2006, 2007 and the partial 2008 data (with 2008 as a partial year of data, missing the 4th quarter) show that the estimated 2008 design values calculated with the available data meets the annual and daily $PM_{2.5}$ NAAQS at 13 ug/m^3 and 35 ug/m^3, respectively.

The State successfully pursued the establishment of a new station in Camden (ID# 340070002) which began operating on April 21, 2012. Since three years of data are required to determine compliance with the $PM_{2.5}$ annual and daily NAAQS, there is not enough data to make such a determination at the new Camden site. However, an evaluation of the partial 2012 data shows that the partial data is currently below the annual and daily NAAQS. Using less than one year of data from April 21, 2012 to September 27, 2012, the average $PM_{2.5}$ concentration is 9.7 ug/m^3 and the 98th percentile 24-hour PM2.5 concentration is 23.3 ug/m^3.

c. Elizabeth

There are two monitors in Elizabeth, as shown in Appendix III, (ID# 340390004, ID# 340390006). The air monitor located in Elizabeth, Union County, New Jersey (ID# 340390004, "Elizabeth Lab" near the NJ Turnpike) is a long standing monitor that was established in 1970. This monitor had incomplete data capture for 2nd quarter 2008 and low data capture for 3rd quarter 2008 for the daily standard. The USEPA performed additional analysis to determine if the monitor met the daily $PM_{2.5}$ NAAQS (see references in response to comment #7). The USEPA has not found any anomalies with the missing data and approves of using data substitution in its bootstrapping analysis for calculating a 2007-2009 design value using data from the monitor located at the Mitchell Building in Elizabeth, Union County (ID# 340390006). The results of the USEPA's analysis produced a 2007-2009 design value of 32 µg/m^3, which is below the daily $PM_{2.5}$ NAAQS. This monitor has met the annual standard since 2006 (see Tables 1 and 2 in Appendix III of the SIP revision).

While the State cannot monitor in every neighborhood, the network is designed to represent all types of neighborhoods from urban to rural. Based on the data from this network, the State concludes that all communities are meeting the air quality standards for $PM_{2.5}$.

11. **Comment:** You concede that, "Some monitors have incomplete data, which has been addressed by data substitution and/or statistical analyses." But there is no clarification about the extent of incomplete data and where significant substitutions were made to account for these data gaps. Ana Baptista, ICC

Response: The incomplete data analyses on New Jersey's multi-state areas are conducted by the USEPA. The analyses are discussed in detail in the USEPA clean data determinations, which were available at the time of proposal for public comment. New Jersey referenced the USEPA's Clean Data Determinations in the proposed SIP and in the response to comment # 7 above. A summary of the monitors with incomplete data follows:

For the annual 15 µg/m^3 NAAQS, the USEPA conducted a regression-based statistical analysis referred to as "bootstrapping" for the following monitors:

- PS59 (ID# 360610056), New York, New York;
- PS 19 (ID# 360610128), New York, New York; and
- New Garden (ID# 420290100), Chester County, Pennsylvania.

Five other monitors in the Southern New Jersey-Philadelphia nonattainment area, of which included two in New Castle County, Delaware, two in Philadelphia County, Pennsylvania, and one in Gloucester County, New Jersey, also had less than complete data and passed the USEPA's maximum quarter test in accordance with its April 1999 guidance document, "Guideline on Data Handling Conventions for the PM NAAQS."

For the daily 35 $\mu g/m^3$ NAAQS, the USEPA performed the same "bootstrapping" analysis for the following monitors:

- Newark-Willis Center (ID# 340130015), Newark, Essex County, New Jersey;
- Elizabeth Lab (ID# 240390004), Elizabeth, Union County, New Jersey;
- PS 59 (ID# 360610056), on the roof of public School 59 in Manhattan, New York;
- Canal Street (ID # 360610062), 350 Canal Street post office, Manhattan, New York; and
- PS 19 (ID# 360610128), Public School 19, Manhattan, New York.

The USEPA's evaluations of the monitoring data concluded that the Northern New Jersey-New York-Connecticut and Southern New Jersey nonattainment areas are attaining the NAAQS for the annual and daily standards. The USEPA determined that its statistical method is applicable to this specific situation due to the robustness of the monitoring networks, historical diligence in operation of monitors, and valid reasons for incomplete data. Currently all operating monitors are meeting the annual and daily $PM_{2.5}$ NAAQS.

For more details on the data analyses see the USEPA clean data determinations at the Federal Registers referenced in the response to comment # 7.

12. **Comment:** The State is only using data from the past two years to make our air appear on paper cleaner than it really is. There has been no overall improvement in New Jersey's air quality. NJ Sierra Club

13. **Comment:** The State should retain its nonattainment status for $PM_{2.5}$ until such time more data, over a longer period of time, can be collected. Ana Baptista, ICC

Response to Comments # 12 and 13: The commenter is incorrect, there has been improvement in New Jersey's air quality and it has been demonstrated over a period longer than two years. The multi-state $PM_{2.5}$ trends graphs in Figures 3 through 6 of the SIP show overall decreasing trends, with sharper declines in the 2005-2007 design value range. New Jersey state specific trends graphs are shown below in Figures 1 and 2.

Figure 1

$PM_{2.5}$ Design Value Concentrations, Annual Design Values 1999-2011
New Jersey Statewide

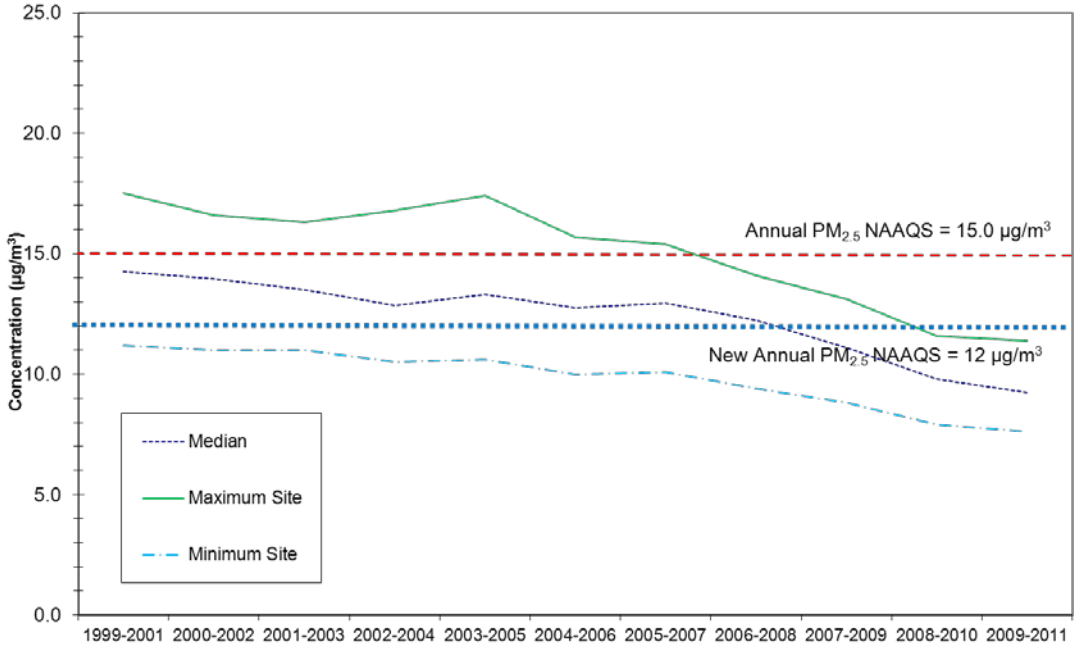
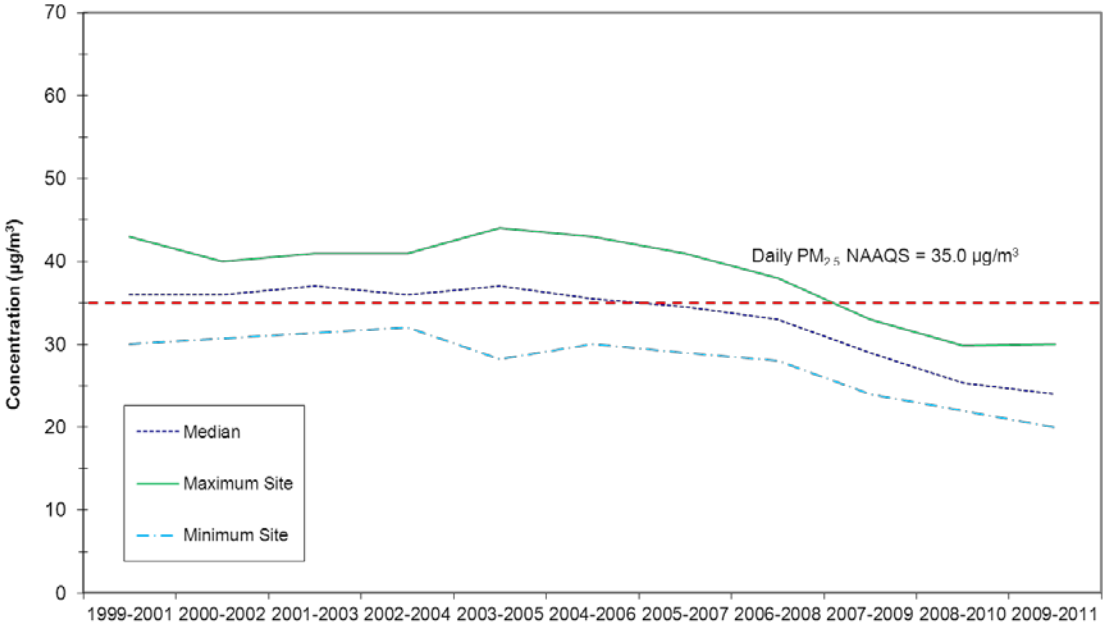


Figure 2

$PM_{2.5}$ Design Value Concentrations, 24-Hour Design Values 1999-2011
New Jersey Statewide



As shown in the New Jersey statewide graphs, the sharper decline begins in the 2003-2005 design value range.

New Jersey's multi-state nonattainment areas came into compliance with the Federal standards in the 2007-2009 design value range, and continue to be in compliance through 2011. These graphs show clean air for the last 4 and 3 years for the annual and daily standards, respectively. There is clear improvement in New Jersey air quality.

For additional details on emission reductions from control measures see the response to comments # 19 through 22 below.

14. **Comment:** Was sensitivity analysis or statistical analysis conducted on the data trend lines to demonstrate the strength of the trend line purported? In the Southern New Jersey region of nonattainment there does not seem to be a strong downward trend with the maximum value sites just below the NAAQS threshold for both the annual and daily $PM_{2.5}$ standards and starting only in 2007-2008. Ana Baptista, ICC

Response: The multi-state $PM_{2.5}$ trends graphs for the southern New Jersey region, shown in Figures 5 and 6 of the SIP, show overall decreasing trends, with sharper declines in the 2005-2007 design value range. New Jersey state specific trends graphs, shown above in Figures 1 and 2, show that a sharper decline begins in the 2003-2005 design value range.

A trend line statistical analysis is not required as part of a redesignation request. The CAA requires that the data be in compliance with the standards, and the SIP has to demonstrate anticipated continued future compliance with the standards through the use of projection emission inventories. The State has conducted the required analyses. As discussed in the response to comment # 7, the USEPA has determined that New Jersey's multi-state nonattainment areas are meeting the NAAQS with the 2007-2009 (2008-2010 for southern area daily standard) monitoring data. In addition, the State has continued to be in compliance for the 2008-2010 and 2009-2011 compliance periods. Historically, as shown in the New Jersey state specific trends graphs above in Figures 1 and 2, the decreasing trend statewide is the same for the highest, lowest and median air monitors.

Meteorology

15. **Comment:** New Jersey has experienced larger amounts of rain in the last decade, which may be artificially suppressing pollution levels. See Statewide Monthly Precipitation 1895-2012, http://climate.rutgers.edu/stateclim_v1/data/index.html (Sept 6, 2012). The past 2 years have been more rainy than usual, resulting in cleaner air readings. Weather pattern, which may have produced the $PM_{2.5}$ reductions, are not permanent and enforceable. DC Sierra Club, NJ Sierra Club

Response: In order to account for year to year variability in weather patterns, emissions rates and other factors, compliance with the air quality standards is based on three years of data.

According to the records of the New Jersey State Climatologist, as of the end of 2011, only two years in the last decade rank among the wettest years in New Jersey since statewide records commenced in 1895, 2011 and 2003 (Table 1).[1] As discussed in the USEPA

[1] http://climate.rutgers.edu/stateclim/?section=menu& target=dec11

proposed and final clean data determinations, New Jersey's multi-state nonattainment areas came into compliance during the 2007-2009 (2008-2010 for the southern area daily standard) monitoring periods, prior to the 2011 high precipitation year. In addition, the areas continued to be in attainment for the 2009-2011 monitoring period.

Table 1
Highest Precipitation Years in New Jersey

Rank	Year	Annual Prcp. Total
1	2011	64.87"
2	1996	59.98"
3	1975	58.85"
4	1983	58.33"
5	2003	57.76"
6	1972	57.56"
7	1979	56.60"
8	1989	55.56"
9	1903	55.08"
10	1902	54.73"

Table 2
Lowest Precipitation Years in New Jersey

Rank	Year	Jan.-Jul. Prcp
1	1955	17.55"
2	1957	17.72"
3	1954	17.84"
4	1963	18.12"
5	1965	18.12"
6	1966	19.13"
7	1995	19.97"
8	1985	20.55"
9	1930	20.84"
10	1977	20.90"
11	1927	21.28"
12	1926	21.44"
13	2012	21.54"
14	1992	21.71"
15	1905	22.18"
16	2002	22.22"
17	1904	22.34"
18	1976	22.34"
19	1923	22.48"
20	1970	22.83"

The 2011 precipitation of approximately 65 inches was heavily influenced by the rainfall from several severe tropical storms, including Hurricane Irene, which occurred over a several week period and is not typical of the precipitation events generally experienced in New Jersey. The short term nature of this type of event does not have a significant effect on the annual or daily $PM_{2.5}$ NAAQS, since both are based on a three year monitoring period.

The annual rainfall in the years 2007 to 2010 is as follows: 2007-48.14 inches; 2008-47.8

inches; 2009-54.44 inches; 2012-46.13 inches. Three of these years are both below the 2001-2011 average rainfall of 50.08 inches and are within an inch of the 1971–2000 average rainfall of 47.2 inches. The annual rainfall levels from 2007-2010 are representative of the State's meteorological conditions over the last 40 years.

Violations

16. **Comment:** How will monitoring and violations be tracked over time and how will the public be notified when violations occur? Ana Baptista, ICC

Response: The Department tracks air quality on a continuous basis and keeps an ongoing record of all "exceedances" of the standard. This information is available at any time by request. Current air quality levels can be checked on the Department's web site at www.njaqinow.net or the USEPA website at www.airnow.gov. As discussed above in the response to comment # 7, a daily "exceedance" of the NAAQS level does not mean the State is not in compliance with the NAAQS. Compliance with the Federal standard is measured based on three years of data.

The public can receive automatic notifications, as well as forecasts, when air quality "exceeds" the ozone or $PM_{2.5}$ standard by signing up for EnviroFlash at the www.airnow.gov site. To see $PM_{2.5}$ air quality design values, which are the three year data statistics used to determine if an area is meeting Federal air quality standards, the public can go to the Department's annual summary reports, which are available at www.njaqinow.net (Publications/Annual Reports), or the USEPA website http://www.epa.gov/airtrends/values.html.

17. **Comment:** How does New Jersey propose to "work with other states in the shared multi-state nonattainment areas" if violations are found to occur? Ana Baptista, ICC

Response: Department staff work with other states on a regular basis. Regional conference calls are held at all levels of staff (Director, Chief, Staff) to discuss monitoring, inventory, state implementation plans, modeling, control measures and air planning. Calls are coordinated by the Mid-Atlantic Regional Air Management Association (MARAMA), Ozone Transport Commission (OTC), Northeast States for Continued Air Use Management (NESCAUM) and the National Association of Clean Air Agencies (NACAA). If a violation in New Jersey's multi-state nonattainment area is due to a monitor outside of New Jersey, New Jersey will work with that state to try and determine the cause of the violation, if it is a localized issue or an exceptional event, and what the local or regional response should be.

State Implementation Plan (SIP)

Process

18. **Comment:** What is the process for redesignating an area in nonattainment? Ana Baptista, ICC

Response: According to Section 107(d)(3)(E) of the Clean Air Act, there are five requirements that must be met in order for a nonattainment area to be redesignated to attainment. These requirements are discussed in detail in New Jersey's Proposed Redesignation request, dated July 2012. When a State meets these requirements, they may submit a proposed SIP redesignation request to the USEPA. States are required by 40 CFR Part 51 to have a public process for their redesignation requests, including the requirement to accept comments on the request from the public. A State must offer the public an opportunity for a public hearing. After the State completes the public process, it finalizes the SIP, including

a new section that discusses the public process and responds to comments. The final SIP also includes any revisions to the SIP that result from the public comments. After the State submits a final SIP to the USEPA, the USEPA has 6 months to deem the submittal complete, and 18 months to respond to the submittal. The USEPA's proposed approval or disapproval will also have a public process accepting comments from the public.

If approved, the State must operate under a USEPA approved maintenance plan. A maintenance plan provides for maintenance of the relevant NAAQS in the area for at least 10 years after redesignation and includes:

- A commitment to track the air quality for continued attainment of the $PM_{2.5}$ NAAQS by evaluating future monitoring data;
- A commitment to evaluate the cause of any monitored violation, if one occurs;
- A plan to promptly implement existing measures that are not yet in effect (contingency measures) if a violation of the NAAQS should occur after redesignation;
- If necessary, a commitment to further evaluate new measures that will bring the area back into attainment, and a timeline for the implementation of these measures.

Section 175A of the Clean Air Act requires that eight years after redesignation of any area as an attainment area, states submit an additional revision of the SIP for maintaining the NAAQS for ten years beyond the initial ten-year maintenance period. This plan is referred to as a second ten-year maintenance plan.

Permanent and Enforceable Measures/Economic Recession 2002-2009

19. **Comment:** We contend that you have not met the basic USEPA requirements that demonstrate that the improvements in air quality are due to permanent and enforceable reductions in emissions of $PM_{2.5}$ or its precursors. There is little evidence presented to back up claims of pollutant reductions due to some of the listed measures for the reduction period of 2007 -2009. Almost half of the measures indicated in Table 1 (11 of the 23 measures) were implemented in 2009 and beyond and thus do not account for the stated reduction of PM levels from 2007-2009 for both the daily and annual PM design values. We believe you have not presented sufficient evidence to suggest a "trend". The decrease below threshold levels begins only around 2007-2009 (Figures ES.5 through ES.8) over the course of more than ten year's worth of data. This pattern that begins in 2007 also coincides with the start of a widespread economic recession and what you are interpreting as a trend may in fact be a temporary dip rather than a consistent pattern of decline based on any strong policy implementation from the State. Your analysis of past trends do not consider the potential relative impact of different economic scenarios under which policies that drive decreases in emissions might be offset by increased economic activity from various sectors in the region. The decrease of $PM_{2.5}$ from the period beginning in 2007-2009 may have more to do with regional and national economic downturn than any proactive, enforceable strategies emanating from the State. The idling rule and the energy master plan are of minimal or no contribution to emission reductions.

If you are touting these measures as the driver of this decreasing trend that the State projects into the future, then what measures were delivering this decrease prior to 2009? How have you proportioned the reductions related to specific policies taking effect and how much of the reduction is in the background from larger economic trends? Was there any consideration of relative contributions from various policies to account for reductions? For example, is there data that shows the actual impact of new engine standards annually based on actual fleet turn

over? Ana Baptista, ICC

20. **Comment:** Redesignation from nonattainment to attainment for both annual and daily $PM_{2.5}$ should not be approved at this time because it fails to meet the requirements for redesignation. The improvements in air quality are not due to permanent and enforceable emission reductions. The administration is using the recession and a downturn in energy use to justify rolling back air quality protections. New Jersey has been in a recession the last couple of years resulting in decreased energy use. Economic downturn, which may have produced the $PM_{2.5}$ reductions, are not permanent and enforceable. DC Sierra Club, NJ Sierra Club

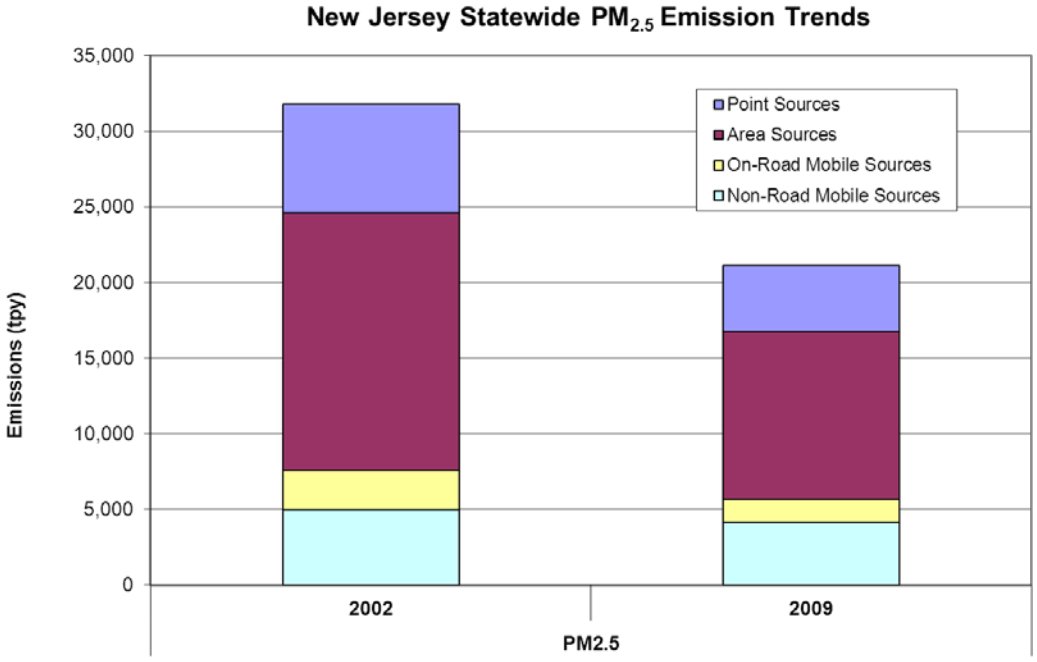
21. **Comment:** The Redesignation Request does not address, in any manner, the concern that a significant portion of recent reductions in $PM_{2.5}$ concentrations are due to the country's economic recession and therefore are not permanent or under the control of the State. Concentrations generally show a declining trend from 1999 until 2000-02, 2001-03, or 2003-05, then level off and decline again. This second decline could at least partly be due to the recession. If the decline in $PM_{2.5}$ concentrations is partly due to the economic recession then it is not permanent or enforceable. The commenter suggests the State gather monitoring data during, and subsequent to, an economic recovery that demonstrates New Jersey $PM_{2.5}$ concentrations are below Federal standards. Nicky Sheats, NJEJA

22. **Comment:** The Sierra Club has concerns with the request to redesignate the nonattainment areas in New Jersey for fine particulate matter ($PM_{2.5}$) to attainment based on decreased emissions based on decreased energy use. During the last two years people have been driving less due to unemployment, businesses have been using less energy and facilities have not been running at full capacity, resulting in less air emissions. More people have been taking mass transit because of the recession with PATH having a record year. High energy costs have led to a reduction in energy across sectors. NJ Sierra Club

Response to Comments # 19 through 22: The declining trend in $PM_{2.5}$ in the ambient air is due to permanent and enforceable control measures as discussed in the SIP. While the economic recession may have played a part in emission decline, the decrease in emissions from control measures far surpasses the economic recession decline as discussed in detail below.

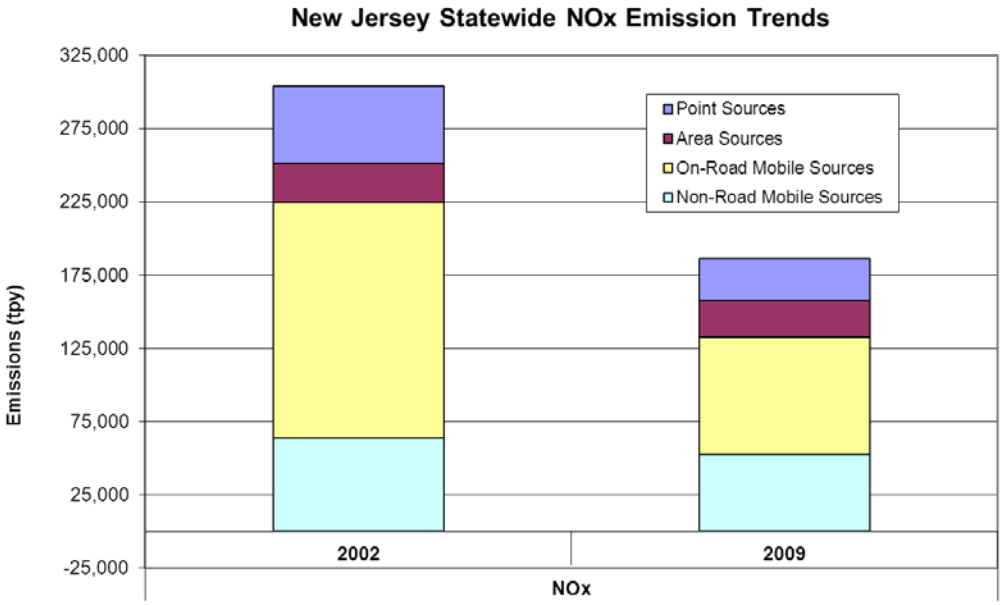
Figures 3, 4 and 5 below show New Jersey's emission inventory trends from 2002 to 2009 for $PM_{2.5}$, NO_x and SO_2.

Figure 3



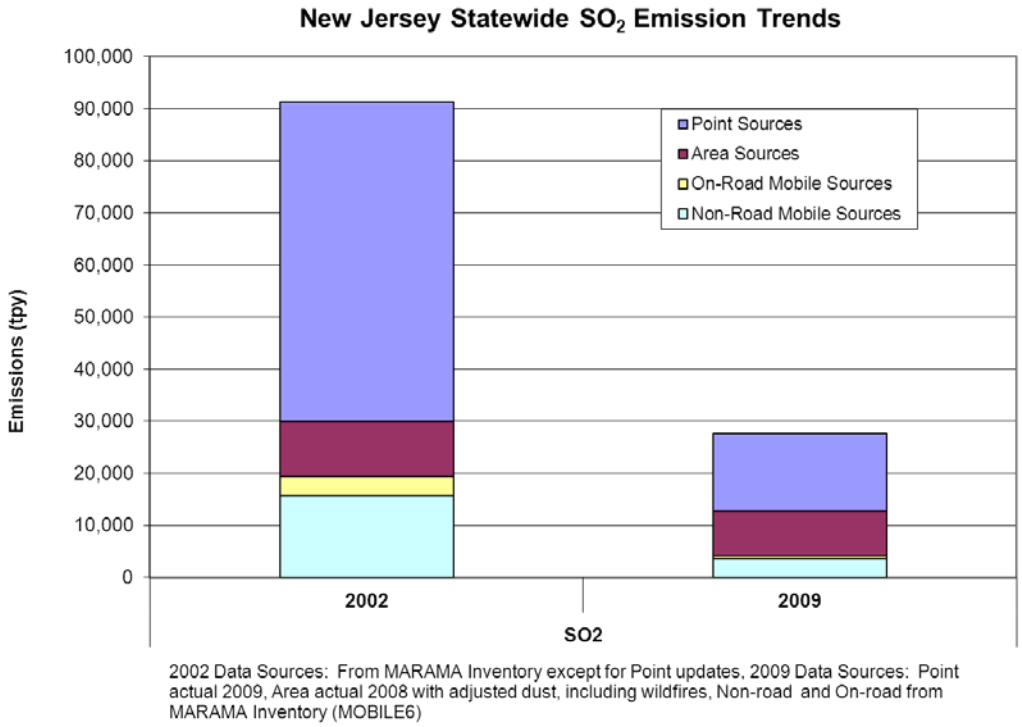
2002 Data Sources: From MARAMA Inventory except for Point = actual 2003, 2009 Data Sources: Point actual 2009, Area actual 2008 with adjusted dust, including wildfires, Non-road and On-road from MARAMA Inventory (MOBILE6)

Figure 4



2002 Data Sources: From MARAMA Inventory except for Point updates, 2009 Data Sources: Point actual 2009, Area actual 2008 with adjusted dust, including wildfires, Non-road and On-road from MARAMA Inventory (MOBILE6)

Figure 5



2002 Data Sources: From MARAMA Inventory except for Point updates, 2009 Data Sources: Point actual 2009, Area actual 2008 with adjusted dust, including wildfires, Non-road and On-road from MARAMA Inventory (MOBILE6)

As shown in the figures, $PM_{2.5}$ emissions are estimated to have decreased from 2002 to 2009 by 34 percent, NO_x emissions are estimated to have decreased by 39 percent and SO_2 emissions are estimated to have decreased by 70 percent.

Control Measure Summary

A summary of New Jersey's Control Measures that provided emissions reductions after 2002 was included in the proposed SIP as Table 1. To provide further clarity, Table 1 in the SIP has been revised to include the effective start date of the benefits and Federal control measures (Tables 1a and 1b). Also, a detailed summary of New Jersey and Federal control measures that provide emission reductions after 2002 in New Jersey, including the effective start date of the benefits and estimated emission reductions, is included in this SIP as Attachment 3 to this response document.

As shown on these tables, several control measures provided significant permanent and enforceable emission reductions between 2002 and 2009; leading up to the timeframe the State came into compliance with the NAAQS. These control measures include:

$PM_{2.5}$, NO_x, SO_2, VOC 2002-2008:

- Electric Generating Unit (EGU or Power Plant) Consent Decree PSE&G
- EGU ACO BL England
- NO_x Budget Program
- Acid Rain Program
- Motor Vehicle Control Program (Tier 1 and Tier 2)
- Heavy-Duty Highway Rule - Vehicle Standards and Diesel Fuel Sulfur Control
- National Low Emission Vehicle Program (NLEV)
- Vehicle Inspection and Maintenance (IM) Program

- Industrial/Commercial/Institutional (ICI) Boiler, Stationary Reciprocating Engine and Stationary Combustion Turbine Rule 2005
- Residential Woodstove NSPS
- Refinery Consent Decrees (Sunoco, Valero, and ConocoPhillips)
- New Nonroad Engine Standards:
    - Gasoline boats and personal watercraft, outboard engines
    - Large Industrial Spark-Ignition Engines over 19 kW (>50 hp) Tier 1 and Tier 2
    - Diesel Marine Engines over 37 kW Category 1 Tier 2, Category 2 Tier 2, Category 3 Tier 1
    - Nonroad Diesel Engine Standards
    - Phase 2 Standards for Small Spark-Ignition Handheld Engines at or below 19 kW (lawn and garden)
    - Phase 2 Standards for New Nonroad Spark-Ignition Nonhandheld Engines at or below 19 kW (lawn and garden)
    - Recreational Vehicles (includes snowmobiles, off-highway motorcycles, and all-terrain vehicles)

$PM_{2.5}$, NO_x, SO_2, VOC 2009:

- Electric Generating Unit (EGU or Power Plant) Consent Decree PSE&G
- NO_x Budget Program
- Motor Vehicle Control Program (Tier 1 and Tier 2)
- Heavy-Duty Highway Rule - Vehicle Standards and Diesel Fuel Sulfur Control
- National Low Emission Vehicle Program (NLEV)
- Vehicle Inspection and Maintenance (IM) Program
- Residential Woodstove NSPS
- Asphalt Production Plants
- Industrial/Commercial/Institutional (ICI) Boiler, Stationary Reciprocating Engine and Stationary Combustion Turbine Rule 2005
- ICI Boiler Rule 2009
- High Electric Demand Day (HEDD)
- Case by Case NO_x
- Municipal Waste Combustors (Incinerators)
- MACT Standards including Industrial Boiler/Process Heater MACT
- Diesel Retrofit Program
- New Jersey Low Emission Vehicle (LEV) Program
- New Nonroad Engine Standards, same as above
- New Nonroad Engine Standards:
    - Locomotive Engines and Marine Compression-Ignition Engines Less Than 30 Liters per Cylinder Tier 2 and Tier 3

VOC Only Measures (supports the SIP, but not a SIP precursor) 2002-2008:

- Stage I and Stage II (Gasoline Transfer Operations)
- Architectural Coatings
- Consumer Products 2005
- Portable Fuel Containers 2005
- Mobile Equipment Repair and Refinishing (Autobody Refinishing)
- Solvent Cleaning

VOC Only Measures (supports the SIP, but not a SIP precursor) 2009:

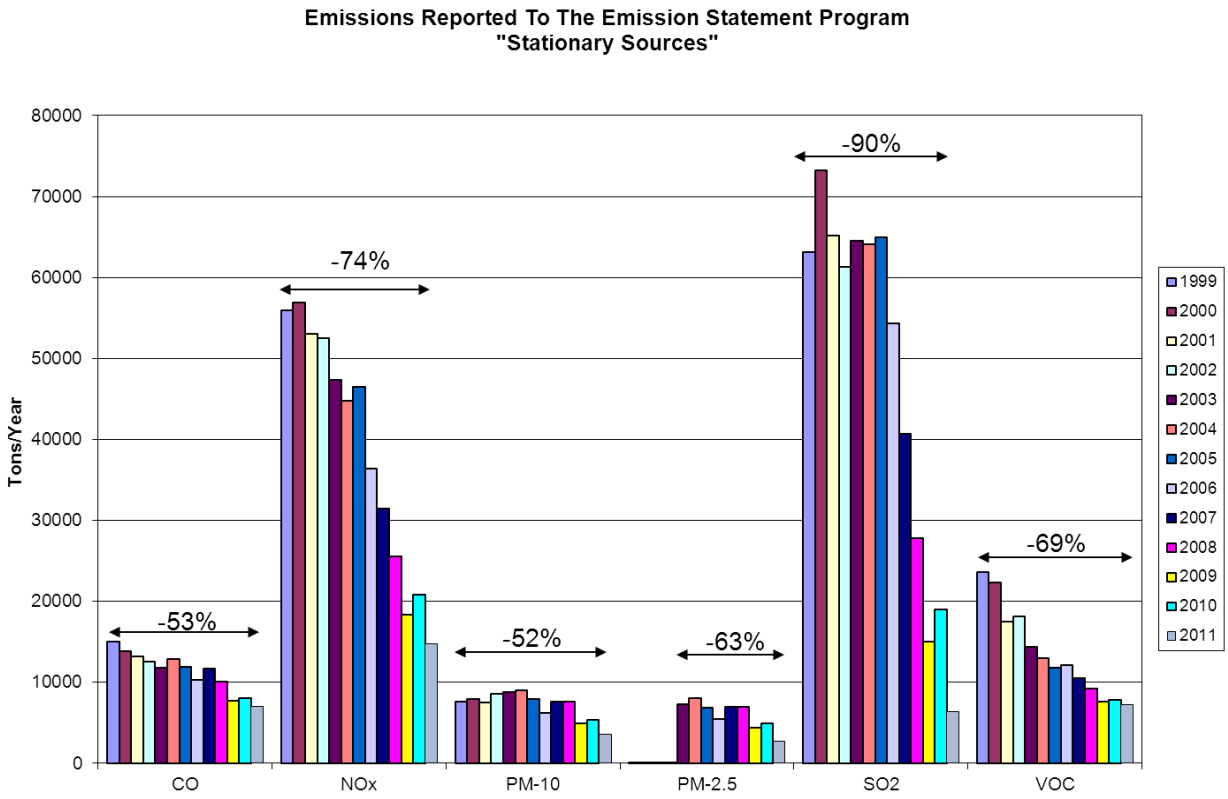
- Portable Fuel Containers 2009 Amendments
- Consumer Products 2009 Amendments

- Adhesives and Sealants
- Asphalt Paving
- CTG: Flexible Packaging Printing Materials
- CTG: Offset Lithographic and Letterpress Printing Materials
- Case by Case VOC

Point Stationary Sources

A graph summarizing the emission reductions in the point source sector is shown below in Figure 6. Significant decreases in $PM_{2.5}$, SO_2 and NO_x are shown in this graph, as well as VOC, CO and PM_{10}.

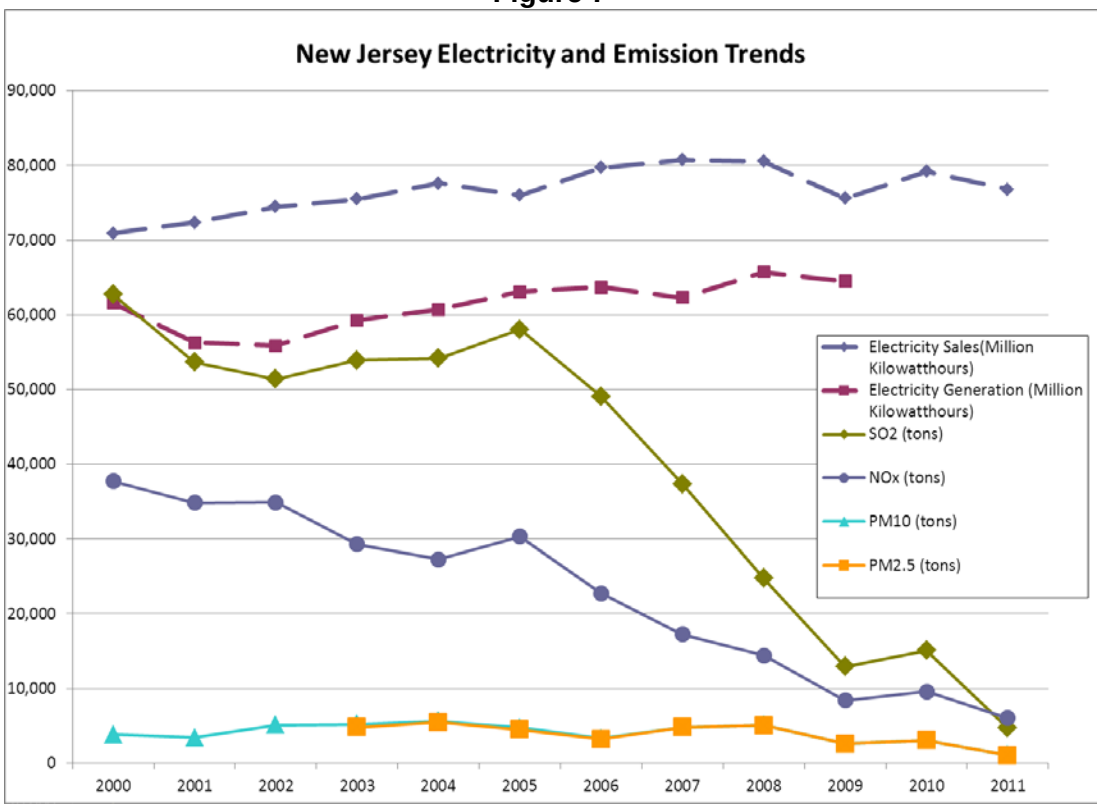
Figure 6



A graph summarizing New Jersey Electricity sales and consumption since 2000 compared to $PM_{2.5}$, NO_x and SO_2 emissions from EGUs is shown below in Figure 7 (Source: Electric Power Monthly http://www.eia.gov/, New Jersey Emission Statement Program Data). As shown in these figures, electricity sales decreased from 2007-2009 6 percent, and electricity generation decreased 1 percent from 2007-2009. However, electricity sales in New Jersey have experienced an overall increase of 8 percent from 2000 to 2011 and electricity generation has experienced an overall increase of 5 percent from 2002 to 2011.

In contrast to the electricity trends, emission reductions of SO_2, NO_x and $PM_{2.5}$ show decreases of 65, 51 and 46 percent, respectively from 2007-2009, and decreases of 93, 84 and 72 percent, respectively, from 2000-2011 (2003-2011 for $PM_{2.5}$), far surpassing the decreases in energy consumption and generation. The graph also shows that significant emission reductions of NO_x and SO_2 occurred prior to 2007.

Figure 7



Onroad Mobile Sources

As shown in Figure 4 above, and Figures 14 and 17 in the SIP, the onroad mobile sector is the largest portion of the NO_x inventory, followed by the nonroad mobile sector. Emissions of direct $PM_{2.5}$ and $PM_{2.5}$ precursors from onroad mobile sources have historically decreased significantly and are projected to continue to decline in the future. The primary reason for the continuous emission decreases from onroad sources is from the replacement of older more highly polluting vehicles with new vehicles that emit pollutants at much lower levels. This effect is commonly referred to as "fleet turnover". The current fleet turnover effect is especially strong because new cars and light trucks are subject to emission standards that are significantly better than the older vehicles that they are replacing. This is due to the Federal "Tier 2" new vehicle emission standards that began to phase in with the 2004 model year augmented by the even more stringent California LEVII new vehicle emission standards that started with the 2009 model year for New Jersey.

One comment expresses a concern that the $PM_{2.5}$ emissions have been temporarily reduced because of the effects of the recession that began in 2007; and that they may rebound to higher levels in the future. Based on yearly statewide VMT data there was a decline in VMT of approximately 3.7 percent in 2008 and 0.5 percent in 2009 after steady annual VMT increases of about 2 percent between 1996 and 2006 (http://www.state.nj.us/transportation/refdata/roadway/pdf/hpms2010/prmvmt_10.pdf). These declines in VMT in 2008 and 2009 were likely related to the economic recession, but are not significant enough to affect air quality compared to the emission reductions achieved by fleet turnover. As part of the $PM_{2.5}$ redesignation effort, emissions of direct $PM_{2.5}$ and $PM_{2.5}$ precursors from onroad sources in the nonattainment counties were calculated for 2007 and 2009 (See Appendix VII). The results indicate that between 2007 and 2009, emissions of

direct $PM_{2.5}$ decreased by approximately 23 percent and emissions of NO_x decreased by approximately 24 percent, even though VMT decreased by only 3.6 percent.

Similarly, an evaluation of onroad emission inventory data from 2002 to 2009 statewide shows that emissions of direct $PM_{2.5}$ decreased by approximately 39 percent and emissions of NO_x decreased by approximately 50 percent, even though VMT increased by approximately 4.5 to 6 percent.

This demonstrates that the overwhelming effect impacting onroad emissions is fleet turnover. The emission changes due to VMT are very small relative to the emission reductions due to fleet turnover. Therefore, the concern expressed by the comment is unfounded. In fact, the recession caused a temporary slow-down in the purchase of new vehicles that would result in a reduction in the fleet turnover effect and a resulting net increase (not reduction) in emissions.

Gross State Product

One indicator of economic conditions is the Gross State Product. A summary of the New Jersey Gross State Product is shown below in Table 3.

Table 3
NJ Real Gross State Product (GSP)
(millions of chained* 2005 dollars)

Date	GSP
1997	$357,153
1998	$364,286
1999	$375,892
2000	$394,422
2001	$402,753
2002	$408,423
2003	$416,436
2004	$424,471
2005	$430,246
2006	$440,262
2007	$443,536
2008	$443,833
2009	$422,433
2010	$428,894
2011	$426,765

(*i.e., inflation-adjusted)
Bureau of Economic Analysis, US Dept. of Commerce
All industry total
http://www.bea.gov/regional/index.htm; accessed 9/27/12
Last updated: June 5, 2012.

As shown in Table 3, there was a decrease in the GSP from 2008 to 2009. However, the multi-state $PM_{2.5}$ monitoring design value trends graphs in Figures 3 through 6 of the SIP show overall decreasing trends, with sharper declines in the 2005-2007 design value range,

before the economic downturn. New Jersey state specific monitoring design value trends graphs shown above in the response to comments # 12 and 13 show the sharper decline beginning in the 2003-2005 design value range, also before the economic downturn.

As discussed above, $PM_{2.5}$ emissions are estimated to have decreased from 2002 to 2009 by 34 percent, NO_x emissions are estimated to have decreased by 39 percent and SO_2 emissions are estimated to have decreased by 70 percent. In contrast, the GSP is showing a 3.4 percent increase from 2002-2009, even with the less than 5 percent decline from 2008-2009.

Future Emissions and Control Measures/Economy Rebound

23. **Comment:** The State's Redesignation Request should not be granted until it produces data showing that $PM_{2.5}$ concentrations in overburdened low-income communities and communities of color will remain below standards after an economic recovery. Nicky Sheats, NJEJA

24. **Comment:** The State should demonstrate its commitment to environmental justice communities by developing a strategy specific to these communities that will maintain $PM_{2.5}$ concentrations below Federal standards. Your analysis of projections do not consider the potential relative impact of different economic scenarios under which policies that drive decreases in emissions might be offset by increased economic activity from various sectors in the region. Ana Baptista, ICC

Response to Comments # 23 and 24: As part of the SIP demonstration, the Department projected emissions into the future to see if future estimated emissions are expected to grow or decline. The Department included growth in activity in the future inventories to allow for such scenarios as increased activity, resulting in increased emissions. Ultimately, with consideration of potential activity growth and existing control measures, the SIP demonstrates that emissions are expected to decrease in the future.

As part of this redesignation SIP, the Department estimated emissions more than 10 years in the future, to 2025. As discussed in Appendix VI, the projected emission inventories are "grown" from the 2007 actual emission inventory and then "controlled". Activity indicators are used to estimate growth or decline in emissions. The best indicators of growth are projection estimates provided by actual facilities, projections for fuel consumption, population, employment, vehicle miles traveled and equipment populations. To be conservative, for the point source inventory, whenever the appropriate growth indicator for a particular emission source was estimating negative growth in the future, New Jersey used zero growth in the calculations.

Once the emission inventories are grown, based on increased activity, the next step is to determine which control measures within each of the various emission sectors would be in place during or prior to that year, and include the emission reduction benefits from those control measures at that time. The combined effect of growth and controls represents the inventory projection. Post-2007 control measure benefits were applied to each emission sector where appropriate.

A detailed summary of the projection inventories and control measure benefits from 2007-2025 was included in the proposed SIP in Section 4.5. The detailed emission inventories were included in Appendices V and VI.

A summary of growth only emissions was compared to grown and controlled emissions from 2007 to 2025. Positive growth was built into the projection inventory to be conservative (an assumption that emissions will increase) for all sectors for $PM_{2.5}$, NO_x and SO_2, except for SO_2

in the point source inventory in the north, and in the area source inventory. This is due to the Department of Energy Annual Energy Outlook (AEO) projections that residual fuel, coal and distillate will decrease in the industrial sector, and distillate fuel will decrease in the area source sector. Because NO_x and PM are also products of natural gas combustion and AEO projects positive growth in natural gas use in New Jersey, the positive growth of NO_x and PM from natural gas is larger than the negative growth from oil and coal. The projected changes from residual and coal to other more efficient, less expensive fuels like natural gas are not projected to reverse back, based on homeowners and industry changing their fuel burning equipment, and based on existing New Jersey rules.

After existing control measures were added to the inventory, a decreasing trend in emissions was projected for all sectors for $PM_{2.5}$, NO_x and SO_2, except for $PM_{2.5}$ in the point source southern area inventory and in the area source northern area inventory. These projections are conservative, to allow for potential growth, however the overall $PM_{2.5}$, NO_x and SO_2 inventories are projected to decrease in New Jersey.

As shown in the SIP in Tables 2 through 11 and Figures 13 through 18, it is estimated that $PM_{2.5}$, NO_x and SO_2 emissions will continue to decrease significantly in the future from 2007-2025 due to the effect of existing control measures. A summary of New Jersey's Control Measures that provide emission reductions after 2007 was included in the proposed SIP in Tables 10 and 11. Table 1 in the SIP has been revised to include the effective start date of post 2002 benefits and Federal control measures (Tables 1a and 1b). A detailed summary of New Jersey and Federal control measures that provide emission reductions after 2002 in New Jersey, including the effective start date of the benefits and estimated emission reductions, is included in this SIP as Attachment 3 to this response document.

As shown on these tables, control measures have provided and are anticipated to provide significant permanent and enforceable emission reductions between 2007 and 2025. A summary of these control measures follows:

$PM_{2.5}$, NO_x, SO_2, VOC 2007-2009:

- Vehicle Inspection and Maintenance (IM) Program
- Electric Generating Unit (EGU or Power Plant) Consent Decree PSE&G
- Refinery Consent Decrees (Sunoco, Valero, and ConocoPhillips)
- Industrial/Commercial/Institutional (ICI) Boilers, Turbines and Engines 2005 and 2009
- New Jersey Low Emission Vehicle (LEV) Program
- Case by Case NO_x and VOC
- Sewage and Sludge incinerators
- Municipal Waste Combustors (Incinerators)
- Asphalt Production Plants
- EGU-High Electric Demand Day (HEDD)
- Residential Woodstove NSPS
- Motor Vehicle Control Program (Tier 1 and Tier 2)
- New Nonroad Engine Standards:
    - Nonroad Diesel Engine Standards
    - Phase 2 Standards for New Nonroad Spark-Ignition Nonhandheld Engines at or below 19 kW (lawn and garden)
    - Phase 2 Standards for Small Spark-Ignition Handheld Engines at or below 19 kW (lawn and garden)
    - Gasoline boats and personal watercraft, outboard engines
    - Large Industrial Spark-Ignition Engines over 19 kW (>50 hp) Tier 1 and Tier 2
    - Diesel Marine Engines over 37 kW Category 1 Tier 2, Category 2 Tier 2,

Category 3 Tier 1
    - Recreational Vehicles (includes snowmobiles, off-highway motorcycles, and all-terrain vehicles)
    - Locomotive Engines and Marine Compression-Ignition Engines Less Than 30 Liters per Cylinder Tier 2 and Tier 3
- USEPA Maximum Achievable Control Technology (MACT) Standards including Industrial Boiler/Process Heater MACT

$PM_{2.5}$, NO_x, SO_2, VOC 2010-2012:
- EGU - PSEG-Consent Decree
- Refinery Consent Decrees (Sunoco, Valero, and ConocoPhillips)
- ICI Boilers, Turbines and Engines 2005 and 2009
- Municipal Waste Combustors (Incinerators)
- Asphalt Production Plants
- Diesel Smoke IM Cutpoint Rule Amendments
- Vehicle IM Program Revisions 2009
- Vehicle Idling Rule Amendments
- Glass Manufacturing
- Residential Woodstove NSPS
- Motor Vehicle Control Program (Tier 1 and Tier 2)
- New Nonroad Engine Standards, same as above
- Heavy-Duty Highway Rule - Vehicle Standards and Diesel Fuel Sulfur Control

$PM_{2.5}$, NO_x, SO_2, VOC 2013-2025:
- EGU - Coal-fired Boilers, Oil and Gas Fired Boilers
- EGU-High Electric Demand Day (HEDD)
- Low Sulfur Distillate and Residual Fuel Strategies
- Residential Woodstove NSPS
- Motor Vehicle Control Program (Tier 1 and Tier 2)
- Vehicle IM Program
- New Jersey Low Emission Vehicle (LEV) Program
- New Nonroad Engine Standards, same as above
- Reciprocating Internal Combustion Engines (RICE) MACT

Additional Measures Not in Maintenance Plan That Support the SIP 2007-2025:
- Portable Fuel Containers 2005 and 2009
- Mercury Rule (New Jersey)
- Diesel Vehicle Retrofit Program
- Consumer Products 2009
- Adhesives & Sealants
- Asphalt Paving (cutback and emulsified)
- CTG Group 1: Printing
- Petroleum Storage
- EGU - BL England ACO
- New Jersey Clean Construction Program
- Refinery Consent Decree (Hess)
- Nonattainment New Source Review (NNSR)
- Prevention of Significant Deterioration (PSD)
- Energy Conservation Standards for New Federal Commercial and Multi-Family High-Rise Residential Buildings and New Low-Rise Residential Buildings
- Mercury and Air Toxics Standards (MATS) for coal and oil-fired EGUs

The State's two-phase oxides of nitrogen emission reduction High Electric Demand Day rule (N.J.A.C. 7:27-19.29 and 30) is reducing oxides of nitrogen emissions from existing peaking power plants now, and will further reduce emissions in 2015. Based on currently available information provided to the Department by owners and operators of peaking power plants, over 2,000 MW of peaking power plants that do not have sufficient emissions controls are expected to shut down by May 1, 2015 to comply with the State's rule.

In summary, potential growth in activity was incorporated into the future estimated emission inventory, and the future inventory still shows a decreasing trend in $PM_{2.5}$, NO_x and SO_2 emissions due to existing control measures that will continue to reduce emissions in the future.

Control Measures Misc

25. **Comment:** NJ does not sufficiently regulate $PM_{2.5}$ emissions to warrant redesignation, the majority of rules actually regulate PM precursors. The list of rules is inadequate to demonstrate that the reductions in $PM_{2.5}$ emission levels can be maintained. DC Sierra Club

Response: As discussed above, in the response to comments # 23 and 24, the existing rules and measures will decrease emissions of $PM_{2.5}$ and PM precursors, SO_2 and NO_x, in the future. PM precursors result in PM in the atmosphere. SO_2 and NO_x emissions contribute significantly to $PM_{2.5}$ in the atmosphere. Therefore, regulation of these emissions will continue to reduce $PM_{2.5}$ emission levels.

The Department is regulating both filterable and condensable direct $PM_{2.5}$ emissions in permits and through stack testing. Air Quality permits have been including emission limits for $PM_{2.5}$ and its precursors (SO_2 and NO_x) since July 15, 2008 in accordance with non-attainment new source review (NNSR) rule requirements specified in 40 CFR Part 51, Appendix S. Air Quality permits will continue to include emission limits for filterable and condensable $PM_{2.5}$ and its precursors (SO_2 and NO_x) after redesignation in accordance with the prevention of significant deterioration (PSD) requirements specified in 40 CFR Part 52.21. Industry in New Jersey has been measuring $PM_{2.5}$ in stack emissions since January 1, 2011 in accordance with amended methods 201A and 202 published in the December 21, 2010 Federal Register.

As a result of rules and consent agreements with the State and the Federal Government, PSE&G's Hudson and Mercer coal plants have installed new air pollution control equipment that controls direct $PM_{2.5}$, in addition to $PM_{2.5}$ precursors, such as baghouses which control direct particles, dry scrubbers which control sulfur dioxide, selective catalytic reduction (SCR) which controls oxides of nitrogen, and carbon injection which controls mercury.

The State's Mandatory Diesel Retrofit Rule at N.J.A.C. 7:27-32 establishes a diesel retrofit program to reduce the $PM_{2.5}$ emissions in diesel exhaust from school buses and certain on-road diesel vehicles and off-road diesel equipment. This rule requires the installation and use of best available retrofit technologies on many of the common diesel-powered vehicles driven in communities such as commercial buses, solid waste vehicles, and publicly-owned on-road vehicles and off-road equipment. The rule also required the installation of a closed crankcase ventilation system on all diesel-powered school buses in New Jersey to reduce the in-cabin exposure of children to diesel particulate matter. The purpose of this rule is to reduce health risks by lowering the levels of diesel $PM_{2.5}$ emissions emitted from regulated vehicles.

Additionally, the State has adopted regulations for vehicle idling and inspection and maintenance of diesel vehicles that reduce direct $PM_{2.5}$, NO_x, SO_2 and toxic compounds.

26. **Comment:** New Jersey has yet to implement the reductions it is supposed to under the current SIP and New Jersey's air has not gotten cleaner. NJ Sierra Club

Response to Comments # 26 and 27: There are no outstanding control measure commitments in the SIP (or equivalent emission reductions) that have not been implemented by New Jersey. The monitoring data demonstrates the air has gotten cleaner, as discussed in the response to comments # 12 and 13.

NO_x Budget Program/CAIR

27. **Comment:** The Oxides of Nitrogen ("NO_x") SIP Call does not result in permanent and enforceable reductions. Reductions resulting from cap and trade programs are not predictable and change quickly with market demands. The Clean Air Interstate Rule (CAIR), which may have produced the $PM_{2.5}$ reductions, is not valid for demonstrating permanent and enforceable reductions. The request does not demonstrate that reduced $PM_{2.5}$ levels are not the result of CAIR. New Jersey cannot prove the reductions are permanent and enforceable if the emission reductions are a result of CAIR. The Court recognized that cap and trade programs are not permanent and enforceable reductions. The D.C. Circuit Court held that USEPA cannot rely on cap and trade programs like CAIR to satisfy an area specific statutory mandate. As the court explained, "even if the most sources in a nonattainment area installed controls rather than purchasing allowances, a small number of sources purchasing allowances and increasing emissions could mean that overall emissions from sources in the area remained unchanged or even increased." NRDC v USEPA, 571 F.3d 1245, 1257 (D.C. Cir. 2009). DC Sierra Club

Response: As shown in the SIP, New Jersey does not rely on CAIR or CSAPR for emission reductions from electric generating units (EGUs). New Jersey has adopted multi-pollutant, permanent and enforceable control measures that set performance standards and reduce emissions for EGUs at NJAC 7:27-4, 10, 19 and 27. As shown in the response to comments # 19 through 22 and in the control measure summary table in Attachment 3, the consent decree with PSE&G, the administrative consent order with BL England, the NO_x budget program and the Acid Rain Program have significantly reduced emissions from EGUs prior to the State coming into attainment. Also as shown in the table in Attachment 3, the New Jersey rules for EGUs, High Electric Demand Days (HEDD), the consent decrees and the administrative consent order will continue to reduce emissions in the future.

Because New Jersey is not relying on CAIR, the commenter's statement about the court case is not relevant. However in addition, the State disagrees with the commenter's interpretation of the cited decision. Rather than holding what the commenter asserts, the court concluded that USEPA did not evaluate the effect of the cap-and-trade program on each nonattainment area for purposes of the RACT requirement.

For states that do rely on CAIR and CSAPR, the USEPA has stated in a guidance memorandum from Gina McCarthy, USEPA Assistant Administrator, to Air Division Directors, Regions 1-10, dated November 19, 2012:

"Certain state submittals awaiting approval by EPA, such as pending redesignation requests……..may be partly dependent on the assurance of ongoing regional NO_x and SO_2 emission reductions……..We believe that it will be appropriate to rely on CAIR emission reductions as permanent and enforceable for certain actions in certain circumstances…….. Thus actions on those pending requests and SIPs may go forward."

CSAPR/Transport

28. **Comment:** In light of the D.C. Circuit's recent decision striking down CSAPR, New Jersey's SIP lacks any provisions to fulfill the requirements of Clean Air Act §110(a)(2)(D)(i)(I), commonly referred to as the Good Neighbor provisions, for the 1997 and 2006 $PM_{2.5}$ NAAQS. New Jersey's SIP is required to prevent New Jersey from significantly contributing to nonattainment or interfering with maintenance of other state's NAAQS; however, currently New Jersey has no means of regulating pollution that would contribute to other state's emission levels. Therefore, 42 U. S.C.§ 7407(d)(3)(E)(ii) and 42 U.S.C. § 7407(d)(3)(E)(v) prohibit USEPA from approving the redesignation requests. DC Sierra Club

Response: As discussed in the SIP, New Jersey has met its obligation to address transported pollution through the implementation of New Jersey State specific rules. New Jersey has adopted multi-pollutant permanent and enforceable control measures that set performance standards and reduce emissions for EGUs at NJAC 7:27-4, 10, 19 and 27. In adopting these control measures, New Jersey does not rely on CAIR or CSAPR for emission reductions from EGUs.

New Jersey's low sulfur fuel oil rule at NJAC 7:27-9 will further reduce SO_2 emissions from EGUs, as well as numerous other sources, by reducing the sulfur content of fuel oils used throughout the State, including fuel oil-fired EGUs, home heating, and industrial and commercial boilers. The low sulfur fuel rule was adopted in August of 2010, with effective dates for lower sulfur in fuel limits in 2014 and 2016.

The control measures adopted and implemented in New Jersey address its contributions to the downwind states. Areas downwind of New Jersey are currently also attaining the $PM_{2.5}$ NAAQS.

Also note, transport SIP obligations are not linked to an area's nonattainment status and are not "applicable" for purposes of redesignation. The CAA requires that the State has met all "applicable" requirements under section 110 and part D of the CAA. USEPA final action on New Jersey's PM2.5 infrastructure SIP is not a prerequisite for redesignation by USEPA, and the obligations continue to apply after redesignation.

Also, as discussed in the response to comment # 27, for states that do rely on CAIR and CSAPR, the USEPA has stated in a guidance memorandum from Gina McCarthy, USEPA Assistant Administrator, to Air Division Directors, Regions 1-10, dated November 19, 2012:

"Certain state submittals awaiting approval by EPA, such as pending redesignation requests……..may be partly dependent on the assurance of ongoing regional NO_x and SO_2 emission reductions……..We believe that it will be appropriate to rely on CAIR emission reductions as permanent and enforceable for certain actions in certain circumstances…….. Thus actions on those pending requests and SIPs may go forward."

Inventory

29. **Comment:** New Jersey does not have approved emission inventories. DC Sierra Club

Response: The appropriate emission inventories are included in this State Implementation Plan (SIP). It is expected they will be approved when the USEPA takes final action on the redesignation request.

30. **Comment:** What method was used to prevent double counting of emissions reductions from different sector contributions to pollutant levels? Ana Baptista, ICC

Response: The estimated emission reductions are done differently for each source. There is no double counting of emission reductions. There is some overlapping categories in the point and area source emission inventories. When an emission source category is in more than one sector, either the emissions, or the activity used to calculate emissions (fuel, employment), that were submitted to the NJDEP by industry for the point source sector, is subtracted out of the area source inventory to prevent double counting. The details of how this was done for each category is included in the emission inventory calculation methodologies included in the SIP in Appendices V through IX.

31. **Comment:** The maintenance plan is premised on a 2007 emissions inventory, which the State deems is the most comprehensive data set available. Yet this data set for South Jersey had incomplete data that could not be addressed through substitution. Ana Baptista, ICC

Response: The emissions inventory is not calculated based on monitoring data. The statement that the inventory is the most comprehensive data set available is based solely on inventory calculations and efforts, as explained in Appendix V, and is not related to monitoring.

TRI

32. **Comment:** The air in New Jersey for the last decades has been getting dirtier, not cleaner. Toxic Release Inventory (TRI) data from the USEPA shows increases in pollutants in our air. NJ Sierra Club

Response: The commenter is incorrect. The TRI data for New Jersey for the years 2000 to 2010 (the most currently available TRI reporting year) shows a steady decline in emissions, with the exception of an approximately 6 percent increase (740,000 pounds) from 2004 to 2005. TRI emissions have shown an overall decrease of approximately 77 percent (13 million pounds) from 2000 to 2010. Increases in the TRI inventory in 1995, 1998 and 2000 were due to Toxic Chemical List expansion, industry expansion to include select non-manufacturing sectors, and an expanded Persistent, Bioacculuative, Toxic (PBT) list, not actual emission increases.

In addition, to the extent the commenter is suggesting a link between TRI data and PM2.5 emissions, which are the subject of this redesignation request and SIP, the TRI does not provide an accurate representation of $PM_{2.5}$ emissions. The TRI inventory contains toxic and volatile compounds that are not considered precursor's to $PM_{2.5}$. New Jersey's $PM_{2.5}$, NO_x and SO_2 inventories are relevant inventories to the redesignation request. These inventories show decreases in emissions of all three pollutants, as presented in Section 4.5.1 of the proposed Redesignation Request SIP.

Future Emission Increases

33. **Comment:** The emissions calculations for on-road mobile sources fail to consider 15 percent ethanol in gasoline, which will lead to an increase in NO_x and VOCs. USEPA recently decided to allow up to 15 percent ethanol content in gasoline. (76 Fed. Reg. 4662 Jan. 26, 2011). This was not accounted for in the calculations so the mobile source emission reductions are not permanent and enforceable and the maintenance plan is not adequate to maintain attainment for $PM_{2.5}$. DC Sierra Club

Response: A USEPA study concludes that E15 is not expected to cause Tier 2 motor vehicles to exceed their exhaust standards over their useful lives when operated on E15. (Partial Grant and Partial Denial of Clean Air Act Waiver Application Submitted by Growth Energy to Increase the Allowable Ethanol of Gasoline to 15 Percent; Decision of the Administrator; Notice).

34. **Comment:** The Governor's programs such as subsidizing the Xanadu megamall, delaying the Sulfur rule, widening the Parkway, and increasing transit fares, will actually increase air pollution in the long run. The Governor has diverted $239 million from the Clean Energy Fund this year alone, and $600 million overall, to close budget gaps. NJ Sierra Club

Response: The State's air pollution control regulations, at N.J.A.C. 7:27, are not being relaxed as a result of this State attaining the Federal $PM_{2.5}$ NAAQS. As discussed in the response to comments # 23 and 24, potential growth in activity was incorporated into the projected future emission inventories. This SIP demonstrates that the anticipated emission reductions from existing control measures far surpasses the estimated potential growth in emissions from 2007 to 2025.

The State is not delaying implementation of the State's Sulfur in Fuels rule (N.J.A.C. 7:27-9). A proposal in 2011 to amend the Sulfur in Fuel rule to allow for extensions of the first date to reduce the sulfur content of distillate fuel oil in certain circumstances was not adopted by the State.

Air pollutant emissions from current and future transportation projects, such as the widening of the Garden State Parkway, are included in the SIP transportation conformity budgets.

Increasing transit fares are not expected to result in increased air pollution as a negligible decrease in ridership is anticipated as a result of increased transit fares.

35. **Comment:** The Governor supported the construction of three new natural gas plants in the State that will increase air pollution having an especially negative impact in the Ironbound section of Newark. There is a fourth new natural gas plant in Southern NJ that will not receive subsidies. NJ Sierra Club

Response: It is presumed that the commenter is referring to the three Long-Term Capacity Agreement Pilot Program (LCAPP) facilities in Newark, Woodbridge and Old Bridge and the facility permitted in West Deptford. Any proposed new power plant, including these facilities, must meet all permitting/regulatory requirements, including those related to air quality impacts. The air quality modeling for these four, proposed LCAPP facilities predicts that the impact from their pollutant emissions will be minimal and will not cause or contribute to a violation of the air quality standards in the nearby communities.

As discussed in the response to comment # 23 and 24, potential growth in inventory activity was incorporated into the future estimated emission inventory, and the future inventory still shows a decreasing trend in PM2.5, NO_x and SO_2 emissions due to existing control measures that will continue to reduce emissions in the future. Anticipated power plant shutdowns in New Jersey and other states, such as the Portland Generating Station in Portland, PA, due to State and Federal actions (126 Petition, Mercury and Air Toxics Standards (MATS)) were not included in the projection inventory. These shutdowns will provide additional reductions beyond that in the SIP demonstration.

New gas fired power plants will emit a small fraction of the air pollutant emissions of existing coal-fired power plants that are expected to be retired in the same timeframe that the new gas-

fired power plants start operation. A comparison of emissions between a new natural gas-fired power plant and a poorly controlled coal-fired power plant is shown below in Tables 4 and 5:

Table 4
Comparison of Allowable Short-Term Emissions between the 400 MW Coal-Fired Portland Power Plant and the Proposed 655 MW Natural Gas Fired Newark Energy Center

Pollutant	Max. Allowable Emissions (lbs/hr)		Normalized Max. Allowable Emissions (lbs/MWhr)	
	Portland Coal Units	NEC Gas Turbines	Portland Coal Units	NEC Gas Turbines
Sulfur Dioxide	14,720	5.6	36.8	0.009
Nitrogen Oxides	2,070	33.6	5.18	0.051
Particulate (TSP)	416.9	15.8	1.04	0.024

Table 5
Comparison of Annual Emissions between the 400 MW Coal-Fired Portland Power Plant and the Proposed 655 MW Natural Gas Fired Newark Energy Center

Pollutant	Portland Coal Units 2007-2010 Actual Annual Emissions (tons per year)	NEC Gas Turbines Allowable (tons per year)
Sulfur Dioxide	29,067	19.7
Nitrogen Oxides	3,321	136.9
Particulate (TSP)	295.5	57.27

36. **Comment:** How are major area sources like the expansion of port and airport facilities going to impact the regional $PM_{2.5}$ emissions in the State and what is the Department proactively doing to mitigate these potential increases? Mobile source emissions may actually increase with increased development pressure and growth in urban areas and in the airport and seaport sectors which the State Strategic Plan and the Port Authority of New York and New Jersey both tout as projected growth patterns in the decades. Ana Baptista, ICC

Response: The Department is working with the Port Authority of New York/New Jersey as they implement their Clean Air Strategy, which set a goal of 3 percent annual net decrease in criteria pollutants from 2006-2016. This is a cumulative 30 percent decrease from 2006 levels. The Port Authority already implemented some of the measures in the Clean Air Strategy plan to reduce PM2.5 emissions such as banning older trucks from entering the port and offering financial incentives for large ships to use cleaner fuel when using the port. Federal requirements that reduce $PM_{2.5}$ have also been implemented. For example, the International Maritime Organization's Emission Control Area requirement that sulfur in ship fuel be 1 percent on July 1, 2010 and 0.1 percent on Jan. 1, 2015.

Anticipated growth at the port, and throughout the State, is included in the county activity (vehicle miles traveled) projections, which is incorporated into the Department's projection inventory. As discussed in the response to comments # 23 and 24, the future inventory still shows a decreasing trend in $PM_{2.5}$, NO_x and SO_2 emissions due to existing control measures that will continue to reduce emissions in the future.

37. **Comment:** Automobiles safety inspections have been delayed and extended potentially adding more pollution to our air. The State did not get the reductions in air pollution from enhanced inspection and maintenance programs and have actually delayed requirements for inspections of automobiles. NJ Sierra Club

Response: Although safety inspections for non-commercial vehicles have been suspended, commercial vehicles still receive a full annual safety inspection. The elimination of the safety inspection had no impact on pollutant emissions. More importantly, emissions inspections have continued. The comment is apparently referring to the most recent change to the New Jersey Inspection and Maintenance (I/M) program for light-duty vehicles that extended the new vehicle inspection exemption from 4 to 5 years. As documented in New Jersey's SIP revision (located at: http://www.nj.gov/dep/baqp/sip/siprevs.htm) dated October 2010, the potential emission increases due to the extension of the new vehicle exemption were mitigated by emission decreases from an improvement in the effectiveness of New Jersey's private inspection facilities. Therefore, the extension of the new vehicle inspection exemption will not result in future increases in either direct or precursor $PM_{2.5}$ emissions.

Contingency Measures

38. **Comment:** The proposed maintenance plan is deficient, therefore redesignation is unwarranted. The contingency measures do not provide for prompt correction of violations as required by the Clean Air Act. (30 months is too long to take action). The contingency measures are too vague. The State does not provide any indication of what an appropriate enforcement action would be. You can't use rules already enacted because they will not provide tougher standards to reduce $PM_{2.5}$ emissions. New Jersey is already relying on these rules and they cannot be used to address violations. DC Sierra Club

Response: The phase I contingency measures in the maintenance plan are adopted measures that will continue to decrease pollutant levels in the future. It is acceptable and encouraged to use measures that are already adopted but not fully implemented per Section 175(a)(d) of the Clean Air Act[2] and the USEPA's $PM_{2.5}$ Implementation Rule[3]. Further, New Jersey has committed to evaluating additional measures, if necessary and appropriate, to determine the appropriate remedy for the cause of any future violation. It does not make sense to implement a control program that will not solve the violation. Regarding the timeline for action, New Jersey wants to make sure the action taken is the right one to solve the violation and this takes time to analyze the problem, determine the cause and take appropriate action.

The enforcement action referenced would be in accordance with any violations of existing rules, if a violation of existing rules is discovered.

SIP Approval

39. **Comment:** The New Jersey SIP does not meet the required standards to allow for redesignation. The New Jersey SIP does not have approved RACM and RACT programs in accordance with Clean Air Act section 172(c)(1). The Sixth Circuit Court ruled that the "EPA abused its discretion when it determined that it could redesignate the Cincinnati metropolitan area as achieving attainment before Ohio had fully adopted all of the RACT rules of Part D,

[2] 42 U.S.C. 7505a(d)
[3] 72 Fed. Reg. 20642, April 25, 2007

Subpart 2, of the Clean Air Act." Wall v. USEPA, 265 F.3d 426, 442 (6th Cir. 2001). "Implementation of RACT measures must be contained in SIPs submitted with respect to redesignation requests." The State is required to implement a USEPA approved RACM/RACT program before attainment can be approved. In addition, New Jersey does not have a fully approved SIP under section 110(k) and has not met all of the requirements applicable under section 110 and part D of the Clean Air Act. 42 U.S.C. 7407(d)(3)(E)(ii) and (v). DC Sierra Club

Response: As discussed in the proposed redesignation request, some elements of the SIP, such as the attainment demonstration, reasonable further progress, contingency measures, RACM and RACT are not required when an area is attaining the standard in accordance with the USEPA memorandum, Clean Data Policy for the Fine Particle National Ambient Air Quality Standards, dated December 14, 2004.[4] New Jersey submitted a SIP to the USEPA for the annual 15 $\mu g/m^3$ $PM_{2.5}$ NAAQS standard on March 26, 2009, but the USEPA has not acted upon it as of December 1, 2012. The State's RACM and RACT demonstrations were included in this SIP. Approval of the SIP is anticipated prior to redesignation, but not required due to the clean data determinations (as discussed and referenced in the response to comment # 7). New Jersey is relying on a clean data determination to suspend the SIP requirements for the daily standard.

The State's RACM and RACT control measures, as shown in Table 1a of the SIP submittal, have all been adopted and approved by the USEPA.

Also note, the USEPA's $PM_{2.5}$ Implementation Rule[5] established a combined approach for RACT and RACM analyses where the RACT analysis is part of the overall RACM analysis, defining them as those measures that a state finds are both reasonably available and contribute to attainment as expeditiously as practical in the specific nonattainment area. The final determinant of RACM is that measures, either alone or in combination, can advance the attainment date by one year in order to require implementation. This combined RACM/RACT approach would apply that criterion to RACT measures. As discussed in the March 26, 2009 Attainment Demonstration SIP, the State decided to complete its $PM_{2.5}$ RACT analysis separate and apart from its RACM analysis, and without consideration of advancing the attainment date. The State went beyond the USEPA requirements.

Regarding infrastructure SIP elements, CAA Section 110 elements are not linked to an area's nonattainment status and are not applicable for purposes of redesignation. The CAA requires that the State has met all "applicable" requirements under section 110 and part D of the CAA. USEPA final action on New Jersey's PM2.5 infrastructure SIP is not a prerequisite for redesignation by USEPA, and the obligations continue to apply after redesignation. See Reading, Pennsylvania, proposed and final rulemakings (61 FR 53174–53176, October 10, 1996), (62 FR 24826, May 7, 1997); Cleveland-Akron-Loraine, Ohio, final rulemaking (61 FR 20458, May 7, 1996); and Tampa, Florida, final rulemaking at (60 FR 62748, December 7, 1995). See also the discussion on this issue in the Cincinnati, Ohio, redesignation (65 FR 37890, June 19, 2000), and in the Pittsburgh, Pennsylvania, redesignation (66 FR 50399, October 19, 2001).

[4] USEPA memorandum, dated December 14, 2004, entitled *Clean Data Policy for the Fine Particle National Ambient Air Quality Standards*, from Stephen D. Page, Director, Office of Air Quality Planning and Standards.
[5] 72 Fed. Reg. 20612; April 25, 2007

Backsliding, Other NAAQS and Visibility

40. **Comment:** Redesignation from nonattainment to attainment for both annual and daily $PM_{2.5}$ should not be approved at this time because it fails to meet the requirements for redesignation. The analysis of the effect redesignation will have on other NAAQS and visibility is inadequate in accordance Clean Air Act 42 U.S.C. 7410(l) (or 110 (l)) which requires that, "[t]he Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress." For example, nonattainment areas are required to have approved Reasonably Available Control Measures (RACM) and Reasonably Available Control Technology (RACT). Once an area reaches attainment, these requirements are stayed halting any benefits of the programs. The State provides no data on visibility and ozone levels and needs to demonstrate that removing this co-benefit will not interfere with attainment, RACT/RACM, reasonable further progress and any other requirement for the 2006 daily $PM_{2.5}$ NAAQS, 1-hour NO_x NAAQS, the 1-hour SO_2 NAAQS, the 2008 ozone NAAQS, and visibility. DC Sierra Club

41. **Comment:** The State is cherry picking data so they can weaken rules and regulations and rollback clean air standards and enforcement. The proposed changes are not based on improvements in our air quality, it is about weakening standards. Designating our area in attainment for $PM_{2.5}$, we believe will have the effect of pulling back efforts to continue this downward push towards greater air quality improvements. If SIP conformance has the potential to further drive down PM levels even beyond thresholds deemed acceptable, than the State of New Jersey should commit to continuing those efforts, particularly in light of their added benefit for those communities that are most overburdened and vulnerable. NJ Sierra Club, Ana Baptista, ICC

Response to Comments # 40 and 41: The State has satisfied the NAAQS non-interference clause section 110(l) of the CAA in the SIP demonstration. No existing control measures are being repealed, the State is not backsliding as a part of this redesignation action, and the SIP demonstrates that emissions are projected to decrease, not increase. As discussed in the response to comment # 18, part of the redesignation process is a commitment to maintain or decrease current emission levels of $PM_{2.5}$ and its precursors, NO_x and SO_2. As discussed in the response to comments # 23 and 24, the demonstration in the SIP estimated emissions to 2025. This estimate includes anticipated future growth in activity, as well as existing already adopted control measures. Significant decreases in emissions of $PM_{2.5}$, NO_x and SO_2 are projected in the future from these existing control measures, as shown in Tables 10 and 11 and Figures 13 through 18 in the SIP.

The commenter's example of how to demonstrate compliance with 110(l) is not consistent with USEPA guidance. USEPA included guidance on demonstrating compliance with 110(l) of the CAA regarding backsliding and non-interference of a NAAQS *(Demonstrating Noninterference Under Section 110(l) of the Clean Air Act When Revising a State Implementation Plan, DRAFT 06/08/2005 and Guidance on Removing Stage II Gasoline Vapor Control Programs from State Implementation Plans and Assessing Comparable Measures August 7 2012)* as part of their Stage II vapor recovery widespread use rule response to comment docket (Docket ID No. EPA-HQ-OAR-2010-1076). Their guidance states:

"With respect to attainment, maintenance and RFP, the Agency interprets section 110(l) such that areas have two options available to demonstrate noninterference for the affected pollutant(s). As discussed below, these options are: 1) Substitution of one measure by another with equivalent or greater emissions reductions/air quality benefit; or 2) an air quality analysis showing that removing the measure will not interfere with other applicable requirements (i.e., without a substitute measure)."

Further, RACM and RACT control measures have already been adopted and approved by the USEPA, as shown in the SIP, and are not halted with a redesignation. Measures already put in place as part of RACT and/or RACM are permanent and enforceable and backsliding on emission reductions in the SIP is not permitted. As discussed in the response to comment # 39, the RACM and RACT demonstrations (not the actual control measures) in the SIP are not required to be approved with a clean data determination, but the State does anticipate approval of these demonstrations regardless.

The State is not removing any existing measures with this redesignation request. In addition, this action does not mean we stop working to address $PM_{2.5}$ pollution. Efforts continue and will continue.

Public Notice

42. **Comment:** We would like to raise the issue of the lack of full and meaningful public notification and participation with respect to this proposal. The Department's Environmental Justice (EJ) policy as well as the USEPA's Interim EJ policy requires meaningful participation in EJ cases. Yet this proposal was announced in the summer months, there was no notification directly to the Environmental Justice Council (EJAC), and the public hearing was held the week of the Labor Day holiday with only one participant. This total lack of participation is a reflection on the Department's failure to truly engage public input on an important issue impacting millions of people. Holding a public hearing during one of the busiest holiday seasons is disingenuous and shows a lack of real commitment to environmental justice, transparency and public participation. We hope that going forward more thought is given to the timing of public notifications and public hearings. Ana Baptista, ICC

Response: The initial public notices of the proposed SIP revision were issued on July 26, 2012 in accordance with Federal and State laws. A more detailed summary of the public notices and notification outreach efforts is discussed in the opening statement of this document. The Department provided notice via its air rule and SIP listservs and posted notice on the Department website. The Department also specifically reached out via email directly to members of EJAC, NJEJA, the Sierra Club, NJEF, Clean Air Council and other known interested parties who have not signed up on our listservs (or updated their email addresses). These notices were all a minimum of 30 days prior to the public hearing and more than 30 days' notice to the close of the comment period. The notices from the initial listserv messages provided 41 days' notice of the public hearing and 48 days to the close of comment period, longer than the required 30 days, because extra notice beyond what was required was provided to allow the close of comments to be in mid-September rather than in August. There were actually 9 participants at the hearing, only one participant chose to speak at the hearing.

Coal and Diesel

43. **Comment:** Communities and the environment are paying the cost of mercury and toxic air pollution from dirty particulate matter. This pollution comes mostly from coal and diesel emissions.

* According to the 2010 Toll from Coal report, 531 people in New Jersey die each year from coal related deaths.
* There are 445 hospitalizations and 987 heart attacks in New Jersey from coal plants. "

NJ Sierra Club

Response: The State has taken numerous actions to reduce pollution from mercury, coal and diesel sources.

The State's statewide efforts to control power plant emissions have resulted in the installation of modern pollution control equipment at the PSEG Hudson power plant coal-burning unit in Jersey City. As a result of rules and consent agreements with the State and Federal Government, PSE&G's Hudson and Mercer coal plants have installed new air pollution control equipment such as: baghouses which control direct particles, dry scrubbers which control sulfur dioxide, selective catalytic reduction (SCR) which controls oxides of nitrogen, and carbon injection which controls mercury. The control equipment has significantly reduced the emissions of these air contaminants. The scrubber and SCR also result in reduced $PM_{2.5}$ in the atmosphere because sulfur dioxide and oxides of nitrogen are precursors to $PM_{2.5}$ formation.

The State has also adopted rules that set performance standards for coal-fired, and oil- and gas-fired boilers serving power plants, that will be effective in 2013 and will address the power plants not covered currently by consent decrees or administrative consent orders.

The State has adopted regulations to minimize the emissions of mercury. N.J.A.C. 7:27-27 "Control and Prohibition of Mercury Emissions," regulates several major sources of mercury. N.J.A.C. 7:27-27.7 requires that coal-fired boilers meet a mercury emission standard of 3.00 milligrams per megawatt-hour or control mercury emissions by 90 percent. This rule impacted seven coal-fired power plants and reduced mercury emissions from over 500 pounds per year (lb/yr) in 2005 to less than 100 lb/yr in 2011. Included in these coal plants are the Vineland Municipal Electric Utility (Vineland) and the Calpine Deepwater (Pennsville) coal unit, that have ceased operation, the RC Cape May Holding Corporation/B.L. England Generating Station (Beesleys Point), which will be converting from coal to natural gas. In addition, N.J.A.C. 7:27-27.4 "Municipal solid waste (MSW) incinerators" requires that MSW incinerators meet a mercury emission standard of 28 micrograms per cubic meter or control mercury emissions by 95 percent. This rule impacted thirteen New Jersey MSW incinerators (at five facilities) and reduced mercury emissions from over 4,000 pounds of mercury per year in the early 1990s to less than 100 pound of mercury per year in 2011. The Department estimated that overall mercury emissions in New Jersey have declined by over 90 percent since 1990.

New Jersey has also taken action to ensure that out-of state coal fired power plants are held accountable to their impact on New Jersey's air quality. New Jersey's Midwest Power Litigation has led to significant reduction in mercury, toxic and criteria pollutants. Emissions from Midwest power plants and other sources outside New Jersey contribute more than a third of the ozone and particulate pollution impairing air quality in New Jersey, and a much higher proportion of the mercury pollution. The emissions of oxides of nitrogen, sulfur dioxide and mercury generated from the sources in the Midwest are carried to New Jersey by the prevailing winds from the west. New Jersey took action against coal plants located in Midwest that circumvented New Source Review (NSR) regulations requiring installation of new pollution controls when a major source is modified. The State and USEPA enforcement agencies found repeatedly that plants were not merely conducting routine maintenance work, but expanding annual capacity and physically replacing major plant components, without installing the pollution control that NSR requires. Since these facilities broke the law, New Jersey joined a lawsuit to enforce NSR against out-of-state coal power plants to make them reduce their emissions. These lawsuits have resulted in coal plant litigants having to install the necessary air pollution control to reduce emission of air contaminants, including mercury and sulfur dioxide.

In addition, the State filed a Section 126 Petition with the USEPA, for the Portland Power Plant

in Pennsylvania for causing a violation of the sulfur dioxide National Ambient Air Quality Standard in New Jersey. As a result of the Petition, the USEPA has ordered the Portland Power Plant to control its sulfur dioxide emissions by at least 81 percent by January, 2015. As stated above, sulfur dioxide is a precursor to the formation of $PM_{2.5}$.

The State has numerous diesel programs in place that help reduce diesel emissions. The $PM_{2.5}$ redesignation will not cause the State to discontinue its focus on reducing diesel emissions. Because diesel emissions cause the greatest cancer risk of all air toxics in New Jersey, we will continue our aggressive efforts to reduce diesel emissions.

Under the Mandatory Diesel Retrofit Law (N.J.S.A. 26:2C-8), diesel emissions have been reduced from older onroad, diesel-powered motor vehicles including 1,200 garbage trucks, 7,000 school buses, 750 New Jersey Transit buses, and 1,000 private commercial buses. Publicly owned vehicles commonly used for road maintenance and other public works type functions are in the process of installing hardware to reduce diesel emissions. The State has also begun a pilot program under the Governor's Executive Order 60 to retrofit privately-owned off road construction equipment used in the performance of public contracts. Other State rules limit engine idling for both diesel and gasoline vehicles to three minutes and authorize State government and local police departments to fine offenders. The Department's Bureau of Mobile Sources focuses on building awareness of these requirements and coordinating with the Enforcement program to mitigate egregious idling. Heavy weight diesel vehicles are also required to be inspected annually to ensure, via an opacity test, that they are emitting within acceptable levels. The Department continues to work with vehicle owners, including municipalities, to ensure they are aware of these requirements.

As discussed in the response to comment # 36, the State worked collaboratively with the Port Authority to develop a plan to reduce diesel emissions. Additional existing control measures were discussed in detail in the response to comments # 19 through 22.

Overburdened Communities/Cumulative Impacts

44. **Comment:** The administration has not implemented a policy to look at the cumulative impacts of air pollution and develop health-based standards. NJ Sierra Club

45. **Comment:** The Redesignation Request does not adequately address air quality in communities of color and low-income communities that are overburdened with pollution. It does not mention that its own data show a correlation between race, income and cumulative impacts in New Jersey. It lacks a coherent strategy that would maintain $PM_{2.5}$ concentrations in overburdened urban communities below Federal standards. The State should also be required to develop a coherent strategy specifically for overburdened communities of color, and overburdened low-income communities, that will maintain $PM_{2.5}$ levels below Federal standards. Nicky Sheats, NJEJA

Response to Comments # 44 and 45: As discussed in the SIP and in the response to comments # 7 through 10, New Jersey monitors are in compliance with the NAAQS. This SIP demonstration and the control measures implemented in New Jersey apply to all areas of the State of New Jersey. New Jersey's monitoring network is designed to represent all types of neighborhoods from urban to rural. Based on the data from this network, it is reasonable to conclude that all New Jersey communities are meeting the Federal air quality standards for $PM_{2.5}$.

Over the past two decades, the Federal government (Federal Executive Order 12898 (1994) (EO 12898)) and New Jersey (State Executive Order 131 (2009) (EO 131)), directed agencies

to achieve "environmental justice" in decision-making. Environmental Justice includes the "fair treatment and meaningful involvement of all people." Environmental justice issues are important to the State, as evidenced by the Department's commitment to the Office of Environmental Justice and the Department-wide goal for "Enhanced Protection and Restoration of Environmentally Overburdened Communities." (http://www.nj.gov/dep/docs/depgoals.pdf)

Regarding the commenters statement "…its own data show a correlation between race, income and cumulative impacts…", please note the data the commenter refers to is a draft graphical information system (GIS) methodology developed by the Department. This draft methodology is not a "cumulative risk analysis" that correlates levels of pollution with human health impacts. The Department is currently making significant changes to this draft methodology and preparing for a stakeholder process to discuss its future potential use. The Department routinely updates the public, through the Department's Environmental Justice Advisory Council (EJAC), on the current status of this draft GIS methodology. The Department cautions external stakeholders from drawing conclusions from an incomplete and draft product.

Permitting

46. **Comment:** The ramifications of no longer having to comply with SIP requirements could further degrade urban air quality in already heavily overburdened EJ communities. At a time when our communities are grappling with how to curb cumulative impacts, the SIP is one of the few tools that can provide more comprehensive policies that drive down pollutants. For example, currently, in nonattainment areas, proposals for new sources are required to develop offsets for pollutants which are deemed to be above the Significant Impact Levels and undergo a more rigorous review under the USEPA New Source Review (NSR) provisions; the USEPA rule on increments, significant impact levels (SIL) and significant monitoring concentrations (SMC). Without the nonattainment status, new sources can more easily demonstrate that additional emissions from their facilities will not contribute significantly to the air quality degradation throughout the region and will not be required to contribute offsets for emissions above the SIL thresholds for PM2 5. This is particularly detrimental in EJ communities like Newark that are seeking relief from cumulative impact burdens. Ana Baptista, ICC

Response: As discussed in the response to comments # 40 and 41, the control measures in the SIP, including those for major point sources, will continue to be implemented. Sources must continue to meet existing permit limits in accordance with existing rules and regulations.

To implement the revised NAAQS for $PM_{2.5}$, USEPA took three separate actions: (1) On May 16, 2008, the USEPA promulgated New Source Review (NSR) provisions; (2) On October 20, 2010, the USEPA promulgated a rule on increments, significant impact levels (SIL) and significant monitoring concentrations (SMC), and (3) On December 21, 2010, the USEPA promulgated rules on $PM_{2.5}$ stack test methods for stationary sources of air pollution. The revised $PM_{2.5}$ NAAQS divided New Jersey into attainment areas and nonattainment areas.

The owner or operator of major sources currently located in New Jersey's eight attainment counties are required to comply with Federal PSD requirements for $PM_{2.5}$ emissions when a source is constructed or modified. The State is delegated to implement PSD rules in the permit under USEPA delegation. The PSD rules at 40 CFR 52.21 require major sources and their modification to install Best Available Control Technology (BACT), review air quality impacts, review impacts on Class I areas, review impacts on soils, vegetation and visibility, and an approval before construction begin. SILs are a screening tool for cumulative modeling analysis performed to review compliance with NAAQS and PSD increments.

The owner or operator of major sources located in New Jersey's 13 nonattainment counties are required to comply with Federal 40 CFR Part 51 Appendix S requirements for $PM_{2.5}$ emissions when a source is constructed or modified. The State, pursuant to Section IV of 40 CFR Part 51 Appendix S, requires owners or operators of major stationary sources and their modifications located in designated nonattainment area to comply with the lowest achievable emission rate (LAER), secure emission reductions (offsets) to provide net air quality benefits, and certify that all existing major sources owned and operated by the applicant in the same State comply with all emission limitations and standards.

As demonstrated in this SIP, New Jersey air monitors demonstrate compliance with the $PM_{2.5}$ NAAQS. Therefore, nonattainment NSR requirements such as LAER and offsets will not be required upon USEPA redesignation of the 13 nonattainment counties to attainment. Sources located in the 13 nonattainment counties will comply with the PSD provisions of 40 CFR 52.21 instead of nonattainment NSR provisions of 40 CFR Part 51, Appendix S.

Even after USEPA redesignation of the 13 nonattainment counties to attainment, the new and modified $PM_{2.5}$ sources will continue to undergo rigorous NSR review under the PSD rules. The comment suggests that only sources in nonattainment areas are evaluated for compliance with the USEPA's PSD increments, significant impact levels (SIL), and significant monitoring concentrations. This is not true, all of these criteria are examined when a $PM_{2.5}$ source is permitted in an attainment area. In fact, the $PM_{2.5}$ PSD increments and significant monitoring concentrations are only evaluated in attainment areas, not nonattainment areas. The Class 2 $PM_{2.5}$ PSD increments that will be applicable to all areas being designated attainment are 9 ug/m^3 for a 24-hour period and 4 ug/m^3 for an annual period. These increments will limit any degradation of the $PM_{2.5}$ air quality in a redesignated region. The PSD rules are designed to prevent significant deterioration of air quality in attainment areas. Also, the SIL continues to be applied to modeling results to trigger multisource modeling to ensure the NAAQS is not exceeded.

Also, in New Jersey, advances in the art of air pollution control, referred to as the state of the art (SOTA) requirement, is required regardless of attainment designation and for even smaller equipment than is required to have LAER (for nonattainment air pollutant) or BACT (for attainment air pollutant). This is another assurance that good air pollution control technology on new and modified equipment will continue to be required in New Jersey after a redesignation to attainment.

47. **Comment:** The New Jersey SIP lacks $PM_{2.5}$ Nonattainment New Source Review ("NA NSR") Programs. 42 U.S.C. 7502 (c)(5). The deadline for program approval is overdue by over a year for both nonattainment areas. These areas must have an approved NA NSR program before being approved for redesignation. This was noted in Greenbaum v. USEPA, 370 F.3d 527, 533 (6th Cir. 2004). Although that issue was mooted by a redesignation before the appeal, the appellate court declared, "[t]he NSR should have been approved before the redesignation." Greenbaum 370 F.3d at 534. New Jersey does not have SIP approved Prevention of Significant Deterioration (PSD) programs for $PM_{2.5}$ that include of all the required provisions ($PM_{2.5}$ significant emission rates including precursors, requirements for Best Available Control Technology, $PM_{2.5}$ increments, and a designated model to determine if proposed major sources or modifications will cause or contribute to violations.) DC Sierra Club

Response: New Jersey is not required to have a SIP approved nonattainment New Source Review program (NNSR) to redesignate New Jersey's 13 nonattainment counties to attainment. USEPA has determined that SIP approved NNSR is not required to redesignate an

area from nonattainment to attainment. In the December 23, 2011 final rule that redesignated the Ohio and Indiana interstate region, (80258 Federal Register / Vol. 76, No. 247 / Friday, December 23, 2011), USEPA clarified and stated "….since PSD requirements will apply after redesignation, the area need not have a fully-approved NSR program for purposes of redesignation, provided that the area demonstrates maintenance of the NAAQS without part D NSR." In the USEPA response to comment 6c (Page 80258 of 12/23/11 FR), USEPA cited "A detailed rationale for this view is described in a memorandum from Mary Nichols, Assistant Administrator for Air and Radiation, dated October 14, 1994, entitled, *Part D New Source Review Requirements for Areas Requesting Redesignation to Attainment*. The memo states, ''[EPA] * * * is establishing a new policy under which nonattainment areas may be redesignated to attainment notwithstanding the lack of a fully approved part D NSR program, provided the program is not relied upon for maintenance.'' "

As discussed in the SIP, the revised $PM_{2.5}$ NAAQS divided New Jersey into attainment areas and nonattainment areas. The State implements Federal 40 CFR Part 51 Appendix S requirements for $PM_{2.5}$ emissions when a source is constructed or modified in New Jersey's 13 nonattainment counties and increases emissions above the significant thresholds. The State implements Federal PSD requirements for $PM_{2.5}$ emissions when a source is constructed or modified in New Jersey's 8 attainment counties and increases emissions above the significant thresholds. Applying Appendix S is equivalent to having State NSR rules. There is no loss of air quality protection by reliance on Appendix S. New Jersey will not rely on NNSR for $PM_{2.5}$ for maintenance of the $PM_{2.5}$ NAAQS after redesignation.

Regarding PSD SIP approval for New Jersey's attainment areas, the State is delegated to implement PSD rules in the permit under USEPA delegation and is operating under a Federal Implementation Plan (FIP), therefore a SIP is not required. Additional information is provided in the USEPA Completeness Findings for Section 110(a) State Implementation Plans Pertaining to the Fine Particulate Matter ($PM_{2.5}$) NAAQS (62902 Federal Register / Vol. 73, No. 205 / Wednesday, October 22, 2008 / Rules and Regulations).

48. **Comment:** The New Jersey SIP does not meet the required standards to allow for redesignation. The New Jersey SIP contains impermissible provisions allowing for automatic exemptions for excess emissions. See USEPA 1999 Memo, FR 2010 notice on Utah's SIP. Several automatic emission exemptions that are inconsistent with the Clean Air Act and USEPA policy are:

1) NJ Admin. Code 7:27-7.2(k)(2) (2012) - sulfur emissions exempted from industrial sources under abnormal emergency conditions;
2) NJ Admin. Code 7:27-19.24 (2012) - EGUs are exempted from NO_x limits when it is operating at "emergency capacity."

DC Sierra Club

Response: With respect to the specific provisions mentioned by the commenter:

1. The State does not rely on N.J.A.C. 7:27-7 for the attainment or maintenance of the $PM_{2.5}$ NAAQS, and is not requesting USEPA action on revisions to N.J.A.C. 7:27-7 as part of the proposed SIP revision. N.J.A.C. 7:27-7.2 addresses sulfur compounds, and should not impact SO_2 combustion emissions. All sources subject to N.J.A.C. 7:27-7.2(k)(2) are also subject to air permitting requirements, specifically N.J.A.C. 7:27-8.3(n) and N.J.A.C. 7:27-22.16(l), which take precedence because they are more stringent. These two subchapters do not allow for automatic emission exemptions. Sources subject to these permitting rules are only able to claim affirmative defense, not automatic emission exemptions, for releases

under abnormal emergency conditions. Additional Federal rules, which New Jersey facilities must follow, regulate condensable sulfur compounds. The PSD rule provision at 40 CFR 52.21(b)(50)(vi) and the non-attainment NSR provision at 40 CFR 51 Appendix S, Section II.A.(31) (iv), both specify that $PM_{2.5}$ emissions shall include gaseous emissions from a source or activity that condense to form particulate matter at ambient temperature and such condensable particulate matter shall be accounted for in applicability determinations and in establishing emissions limitations for $PM_{2.5}$. These Federal provisions do not allow for releases under abnormal emergency conditions.

2. N.J.A.C. 7:27-19.24 is obsolete. Effective after November 15, 2005, the excess NO_x emissions exemption for electric generating units operating at emergency capacity during a MEG alert was not allowed.

49. **Comment:** The State continues to permit large point sources in overburdened communities unabated. Ana Baptista, ICC

Response: All permits are issued in accordance with applicable requirements. For major sources of air pollution, the Department requires extensive air quality modeling and confirmation that the facility would not cause any exceedances of the NAAQS, Prevention of Significant Deterioration (PSD) increments, and the Department has not identified any disproportionate adverse impacts on nearby communities that would affect issuance of air permits for major sources. For the protection of public health and welfare, USEPA has established NAAQS for criteria pollutants. As part of the evaluation of the permit applications, emissions of carbon monoxide, sulfur dioxide, nitrogen dioxides, fine particulate ($PM_{2.5}$) and inhalable particulate (PM-10) are modeled and, after representative existing background concentrations are added, compared to their respective NAAQS.

The State has also taken numerous actions to improve air quality in communities of concern. One example is that, pursuant to an agreement with the State, Covanta Essex Company has agreed to install a state-of-the-art particulate emissions control system on its waste-to-energy facility in Newark. Additional actions have been discussed throughout this document in the response to comments # 19 through 22, 36 and 43.

50. **Comment:** There is no indication whether the Department is regulating both filterable and condensable $PM_{2.5}$ from existing sources. $PM_{2.5}$ is comprised almost entirely of condensable $PM_{2.5}$. DC Sierra Club

Response: The Department is regulating both filterable and condensable $PM_{2.5}$ emissions. In New Jersey's eight attainment counties for $PM_{2.5}$ NAAQS, the Department implements the Federal Prevention of Significant Deterioration (PSD) provisions of 40 CFR 52.21 under the USEPA delegation to New Jersey. In New Jersey's 13 nonattainment counties for $PM_{2.5}$ NAAQS, the Department implements the Federal nonattainment New Source Review (NSR) provisions of 40 CFR Part 51 Appendix S. Both the PSD rule provision at 40 CFR 52.21(b)(50)(vi) and the nonattainment NSR provision at 40 CFR 51 Appendix S, Section II.A.(31) (iv), specify that $PM_{2.5}$ emissions shall include gaseous emissions from a source or activity which condense to form particulate matter at ambient temperature and such condensable particulate matter shall be accounted for in applicability determinations and in establishing emissions limitations for $PM_{2.5}$.

Upon USEPA redesignation of the 13 nonattainment counties to attainment, the Department will continue to regulate filterable and condensable $PM_{2.5}$ emissions from new and existing sources under PSD provisions, instead of nonattainment NSR provisions.

The Department cannot issue permits that violate NAAQS. The minor sources in New Jersey are required to comply with the SIP, approved N.J.A.C. 7:27-8 rule requirements and the Department policy memo that addresses $PM_{2.5}$ requirements for minor sources. Section II of the memo requires consideration of both filterable and condensable particulate emissions in the applicability determinations and modeling analysis. The Department's regulation of condensable particulate matter predated regulation by most other states.

Other Comments

Health Effects and Continued Efforts

51. **Comment:** $PM_{2.5}$ has significant health effects with no threshold below which adverse effects are not experienced. These health effects include issues such as premature mortality, decreased lung function and asthma attacks. An increasing body of science points to the detrimental impacts of $PM_{2.5}$ as well as ultrafine PM on the health of particularly vulnerable populations that are largely represented in Environmental Justice (EJ) communities. For these reasons we urge the State to reconsider this proposal to the USEPA and maintain your current status with respect to the SIP in order to continue to drive down levels of PM that will have additional benefits for EJ communities like the Ironbound. We urge the State to continue to work on policies that will drive down emissions levels into the future. Ana Baptista, ICC

52. **Comment:** If we do this, more people will needlessly die prematurely, get sick, and miss work and school with all the accompanying health care and economic consequences. David Pringle, NJEF

Response to Comments # 51 and 52: As discussed in the response to comments # 40 and 41, the redesignation does not mean existing measures that are already implemented or those that are adopted and not yet implemented in the maintenance plan will be removed. The emission reductions from those measures are commitments in the SIP. The $PM_{2.5}$ redesignation will not halt the Department's efforts to look for ways to reduce pollution in communities of concern and will not cause the State to discontinue its focus on reducing diesel emissions.

Compliance & Enforcement

53. **Comment:** The Governor is weakening compliance and enforcement programs, especially when it comes to air. The administration is proposing to cut back fines for violations of air permits and allowing for more pollution to be released before it is considered a violation. Fines collected from all polluters are down but air pollution fines have seen the largest decrease. The amount of fines that are collected are down and the amount is often reduced from what was initially proposed by the State. Violation notices across all Department programs are down to 5,500 last year versus 6,900 in 2008. Recent reports found air pollution fines over the past four years are down from $13.8 million to $2.1 million. How does the administration know who will achieve pollution reductions when there is no one at the switch watching and the polluters are being treated like customers? NJ Sierra Club

Response: New Jersey air penalty code rules at NJAC 7:27A were recently proposed for re-adoption. The re-adoption includes clarification of language as well as new penalty matrices that were not included previously in the code. No penalty levels were lowered or withdrawn as part of the re-adoption of the Air penalty code. Penalty collections are reduced because many of the Federal air cases that New Jersey was included in have been completed. In addition, the decrease in violation notices and penalty collections can also be attributed to the facilities coming into compliance by shutting down operations and/or operating within permit allowable

conditions, especially Title V (major) facilities.

Since 2010, the Air Compliance & Enforcement program has implemented a strategy to resolve violations quicker and more efficiently by going directly to settlements instead of issuing formal orders where compliance has already been achieved. This also has reduced the amount of formal enforcement orders being issued by the program and also reduced the potential penalties.

New NAAQS

54. **Comment:** Because a new annual $PM_{2.5}$ standard is pending that is protective of human health, it is inappropriate to redesignate these areas to attainment. If redesignation occurs, it should occur only after the new standard is in place. DC Sierra Club

Response: This redesignation request is for the 15 ug/m^3 annual and the 35 ug/m^3 daily $PM_{2.5}$ NAAQS. The USEPA promulgated a more stringent annual $PM_{2.5}$ NAAQS of 12 µg/m^3 on December 14, 2012. The State's monitors are in compliance with the new annual $PM_{2.5}$ NAAQS. The State will take the required steps to implement the new standard in accordance with existing State and Federal laws.

American Lung Association Study

55. **Comment:** Major studies by groups such as American Lung Association in New Jersey show New Jersey still has some of the worst air quality in the nation and the State is playing with the numbers instead of fixing the problem. We should be working to address those problems, not weakening the standards. The American Lung Association's 2012 State of the Air report graded 16 counties in New Jersey. Eleven counties received an F grade and two others received a D regarding high ozone days. NJ Sierra Club

Response: Ozone air quality is not relevant to this request for redesignation of the $PM_{2.5}$ NAAQS. This $PM_{2.5}$ redesignation request has no impact on New Jersey's current ozone NAAQS designation and classification. A redesignation action does not mean standards are weakened or that we stop working to address pollution as discussed in the response to comments # 40 and 41. Also, while the Lung Association grading system is more stringent than the NAAQS and not relevant to our attainment demonstration, we expect passing grades for fine particles.

RGGI and CSAPR Lawsuit

56. **Comment:** The Governor pulled New Jersey out of the Regional Greenhouse Gas Emissions Initiative and refused to join other northeastern states in Kansas v. USEPA a lawsuit which challenges the proposed Cross State Air Pollution Rule. NJ Sierra Club

Response: These actions are not relevant to the $PM_{2.5}$ NAAQS redesignation request.

State Strategic Plan and Energy Master Plan

57. **Comment:** The State cites the State Strategic Plan and the Energy Master Plan in their approach to bring levels of air emissions down. Yet neither of these plans details how exactly they propose to "align economic growth" with improved air quality outcomes. There is no substantive analysis or any descriptive elements of this plan detailing how the goals of economic growth will be balanced with environmental protections. Your proposal cites the State's Energy Master Plan as another policy driving down emissions into the future. This plan

was also roundly critiqued due to its lack of substantive details as to how renewable energy goals and environmental protections would be met. Furthermore there is no tangible, scientific or policy analysis included in this plan to suggest the Energy Master Plan will have any meaningful impact on air quality improvements. Ana Baptista, ICC

58. **Comment:** The administration is claiming their policies such as the Strategic Plan and the Energy Master Plan will meet long term pollution but these programs are not permanent or enforceable as the State does not directly regulate particulates. There are secondary emissions that are not enforceable either. The Governor's programs will actually increase air pollution in the long run. The Strategic Plan will allow for more sprawl and development especially in the Highlands, Pinelands, and around Barnegat Bay. The Energy Master Plan slashed our clean, renewable energy goals and shifted the State back to relying on fossil fuels. NJ Sierra Club

Response to Comments # 57 and 58: The State is not relying on the State Strategic Plan and the Energy Master Plan as permanent and enforceable measures in the SIP maintenance plan. The maintenance plan measures are included in the SIP in Tables 10 and 11. The Energy Master Plan was included in Table 1 of the proposed SIP as a measure that will "support" attainment. Table 1 of the SIP has been revised as Tables 1a and 1b to clarify the types of measures in the table, and the effective start date of the benefits.

The draft final State Strategic Plan provides the framework for improved coordination among state agencies to ensure environmental issues are managed upfront to reduce impacts while allowing for sustainable economic growth. The purpose of the 2011 Energy Master Plan is to establish the strategic vision for the use, management, and development of energy in New Jersey over the next decade. Included in the goals are measures, such as energy efficiency, renewable energy, and expansion of clean energy technology, which will support improvement of air quality.

No increases or decreases in emissions are anticipated specifically due to either of the plans. However, as discussed in the response to comments # 23 and 24, potential growth in emissions was incorporated into the projected future emission inventories. This SIP demonstrates that the anticipated emission reductions from existing control measures far surpasses the estimated potential growth in emissions from 2007 to 2025.

Diesel Risk Health Benchmark

59. **Comment:** The State has acknowledged as recently as May 2012 that we are not in attainment yet, but is nevertheless seeking that designation anyway with this proposal. The minutes of the May 2, 2012 Environmental Justice Advisory Council (EJAC) meeting approved on September 12, 2012, note that the Department stated at that meeting: "DEP's modeling showed that even with the projected reductions in diesel emissions, a substantial number of areas of the State would still be out of compliance with Federal standards by 2020". David Pringle, NJEF

Response: The note taker at the EJAC meeting, and the commenter have misinterpreted the statements of the Department. The presentation given on May 2, 2012 presented figures showing estimated diesel particulate risk in New Jersey from onroad and nonroad mobile sources. The maps were generated using 2005 National Air Toxics Assessment information from USEPA for diesel particulate matter and California's unit risk factor, which quantifies the potency of diesel's carcinogenicity by estimating the risk of getting cancer relative to exposure; the maps were not based on monitoring data. The maps showed diesel emissions in areas of New Jersey that were above the health benchmark (based on the California cancer risk factor)

for diesel emissions. The health benchmark is the air concentration that a person would have to be exposed to for a lifetime in order to have no more than a 1 in 1 million risk of contracting cancer. This discussion was not related to monitored values of $PM_{2.5}$ concentrations or compliance with the $PM_{2.5}$ NAAQS. The Department intends to continue its efforts to reduce diesel emissions to address cancer risk.