

## **1.0 REASONABLY AVAILABLE CONTROL MEASURE (RACM) ANALYSIS**

New Jersey reviewed control measures that if implemented, could help alleviate its Fine Particulate Matter (PM<sub>2.5</sub>) nonattainment problem. The measures would need to be reasonably available and advance the attainment date for the 1997 annual PM<sub>2.5</sub> National Ambient Air Quality Standards (NAAQS) by at least one year. This appendix provides an analysis of both potential transportation control measures (TCMs) for onroad mobile sources and potential non-TCM control measures for point, area, onroad and nonroad source categories.

In accordance with 42 U.S.C. §7502(c)(1) (Section 172(c)(1) of the Clean Air Act), states, as part of their effort to attain the NAAQS, are required to implement all RACMs as expeditiously as practicable. Specifically, the Clean Air Act states:

“In general – such plan provisions shall provide for the implementation of all reasonably available control measures as expeditiously as practicable (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonably available control technology) and shall provide for attainment of the national primary ambient air quality standards.”

### **1.1 What is a RACM?**

A Reasonably Available Control Measure, or RACM, is defined by the USEPA as any potential control measure for application to point<sup>1</sup>, area, onroad and nonroad emission source categories that meets the following criteria:

- The control measure is technologically feasible
- The control measure is economically feasible
- The control measure does not cause “substantial widespread and long-term adverse impacts”
- The control measure is not “absurd, unenforceable, or impracticable”
- The control measures, if considered collectively, could advance the attainment date by at least one year

Each of these criteria is more fully discussed in Section 1.2.1

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<sup>1</sup> RACM applies only to those point sources not already addressed as part of the Reasonably Available Control Technology (RACT) analysis. The USEPA’s PM<sub>2.5</sub> Implementation Rule (72 Fed. Reg. 20586 (April 25, 2007)) considers RACT a part of RACM, and not an independent requirement, which is how RACT is considered in the Ozone Implementation Rule (70 Fed. Reg. 71611 – 705 (November 29, 2005)). However, New Jersey is conducting these two analyses separately, consistent with the approach used to address RACT and RACM requirements for 8-hour ozone. New Jersey’s separate RACT analysis for PM<sub>2.5</sub> is contained in Appendix A7.

### 1.1.1 USEPA RACM Requirements

In its Final Rule to implement the fine particle National Ambient Air Quality Standard (NAAQS),<sup>2</sup> the USEPA established the following requirements for RACM:

- (a) For each PM<sub>2.5</sub> nonattainment area, the State shall submit with the attainment demonstration, a SIP revision demonstrating that it has adopted all RACM (including reasonably available control technology (RACT)) necessary to demonstrate attainment as expeditiously as practicable and to meet any reasonable further progress (RFP) requirements. The SIP revision shall contain the list of the potential measures considered by the state, and information and analysis sufficient to support the state's judgment that it has adopted all RACM, (including RACT).
- (b) In determining whether a particular emission reduction measure or set of measures must be adopted as RACM under section 172(c)(1) of the Act, the state must consider the cumulative impact of implementing the available measures. Potential measures that are reasonably available considering technical and economic feasibility must be adopted as RACM if, considered collectively, they would advance the attainment date by one year or more.

Because New Jersey can demonstrate that both its 1997 annual PM<sub>2.5</sub> nonattainment areas will attain by their required attainment dates (April 5, 2010), no RFP milestones are required.<sup>3</sup> As such, RACM analysis is only needed to demonstrate advancement of the attainment date.

### 1.2 PM<sub>2.5</sub> RACM Analysis (by precursor)

The USEPA requires that states address not only direct PM<sub>2.5</sub>, but also the gaseous precursors to the formation of PM<sub>2.5</sub> in their RACM analysis.<sup>4</sup> The main precursor gases associated with fine particle formation are SO<sub>2</sub> and NO<sub>x</sub>, and to a lesser extent, volatile organic compounds (VOC) and ammonia.<sup>5</sup> However, as discussed in Chapter 3, the USEPA requires that RACM analysis only address the following PM<sub>2.5</sub> precursors:

- Direct emissions of PM<sub>2.5</sub>
- SO<sub>2</sub>
- NO<sub>x</sub>, unless a state makes a finding that NO<sub>x</sub> emissions from sources in the state do not significantly contribute to the PM<sub>2.5</sub> problem in a given nonattainment area.

The USEPA generally presumes that a RACM analysis does not need to address ammonia and/or VOC unless the state or USEPA determines that ammonia and/or VOC significantly contribute to the PM<sub>2.5</sub> problem in a given nonattainment area, and thus finds that control of ammonia and/or VOC would help address the PM<sub>2.5</sub> problem.

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<sup>2</sup> 72 Fed. Reg. 20666, §51.1010 (April 25, 2007).

<sup>3</sup> 72 Fed. Reg. 20633 (April 25, 2007).

<sup>4</sup> 72 Fed. Reg. 20629 (April 25, 2007).

<sup>5</sup> 72 Fed. Reg. 20589 (April 25, 2007).

Therefore this PM<sub>2.5</sub> RACM analysis reviewed potential control measures that addressed direct PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>.

NO<sub>x</sub> measures were reviewed in the 8-hour ozone RACM analysis,<sup>6</sup> and this analysis satisfies the requirement to address NO<sub>x</sub> as a precursor to the formation of PM<sub>2.5</sub> in the PM<sub>2.5</sub> RACM analysis. New Jersey's 8-hour ozone RACM analysis is included in Attachment A1 to this appendix. In addition, NO<sub>x</sub> measures included in the USEPA's list of potential control measures<sup>7</sup> were reviewed since this list was provided to the states after they had already submitted their 8-hour ozone RACM analysis. A VOC RACM analysis was completed for 8-hour ozone (submitted to the USEPA on October 29, 2007), and concluded that no reasonable measures were available for implementation to advance 8-hour ozone attainment date.

### 1.2.1 Methodology

Potential control measures for mobile (both onroad and nonroad), stationary area, and stationary point (not already subject to PM<sub>2.5</sub> RACT analysis) emission source categories were evaluated using the following criteria: The control measure is technologically feasible, economically feasible, does not cause "substantial widespread and long-term adverse impacts," is not "absurd, unenforceable, or impracticable," and the control measures, if considered collectively, could advance the attainment date by at least one year.

The New Jersey Department of Transportation (NJDOT) conducted the RACM analysis for onroad mobile Transportation Control Measures (TCMs). The remainder of this section discusses the evaluation criteria used for these analyses.

**1. Technological Feasibility** – This criterion is an evaluation of the following to determine feasibility of timely implementation:

- Relevant technology must exist or be reasonably expected to exist within the schedule allotted, be sufficiently available, and be applied to achieve a stated result. For transportation control measures, this item includes technological changes to vehicles, fuels, necessary infrastructure and similar considerations

**2. Economic Feasibility** – This criterion considers an evaluation of the following to determine feasibility of timely implementation:

- The cost of reducing emissions (i.e., cost per ton of emission reduced, cost per ton of emission reduced on high ozone days, capital costs and operating costs. The costs associated with a measure must be justifiable relative to benefits, and

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<sup>6</sup> NJDEP. Chapter 7 of "The State of New Jersey Department of Environmental Protection State Implementation Plan (SIP) Revision for the Attainment and Maintenance of the Ozone National Ambient Air Quality Standard - 8-Hour Ozone Attainment Demonstration, Final." New Jersey Department of Environmental Protection. October 29, 2007.

<sup>7</sup> The USEPA's list of potential control measures for PM<sub>2.5</sub> and Precursors is available at [http://www.epa.gov/pm/measures/pm\\_control\\_measures\\_tables\\_ver1.pdf](http://www.epa.gov/pm/measures/pm_control_measures_tables_ver1.pdf) (accessed November 28, 2007).

compare favorably with other potential emissions control measures (of all types on all emissions sources). Operating costs include both direct or variable costs and indirect or fixed costs.

- No fixed \$/ton was considered for reasonableness in this analysis; instead measures were justified on a case by case basis.
- For some measures, feasibility depends on availability of funding and resources.

**3. Other considerations including measures that do not cause “substantial widespread and long-term adverse impacts” and measures that are not “absurd, unenforceable, or impracticable”** – These criteria were evaluated based on the following to determine feasibility of implementation:

- Considerations such as disruption of fuel supplies, discrimination among various population groups, critical reduction in mobility, and other similar concerns.
- Other adverse environmental impacts such as water pollution, waste disposal issues and energy requirements must be minimized.
- Must be legally enforceable and legal under Federal and state law.
- Must be practical, realistic, and have a strong potential to achieve estimated emissions reductions.
- Must be capable of being implemented and producing the anticipated emissions reductions in the required timeframe. This includes consideration of the schedule for planning, regulatory action, implementation and time to achieve the targeted results.

**4. Advancement of the Attainment Date** – This criterion requires that selected measures advance the attainment date by at least one year. The USEPA requires that states conduct an air quality modeling analysis to determine the attainment date of identified potential control measures.<sup>8</sup> The modeling analysis would be conducted for the year 2009. In order to advance the attainment by one year, the potential RACM measures would have to be implemented by 2008.

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<sup>8</sup> 72 Fed. Reg. 20613 (April 25, 2007).

### **1.2.2 Potential Control Measure Evaluation for Non-Transportation Control Measures**

#### ***Step 1 - Identification of Potential Control Measures***

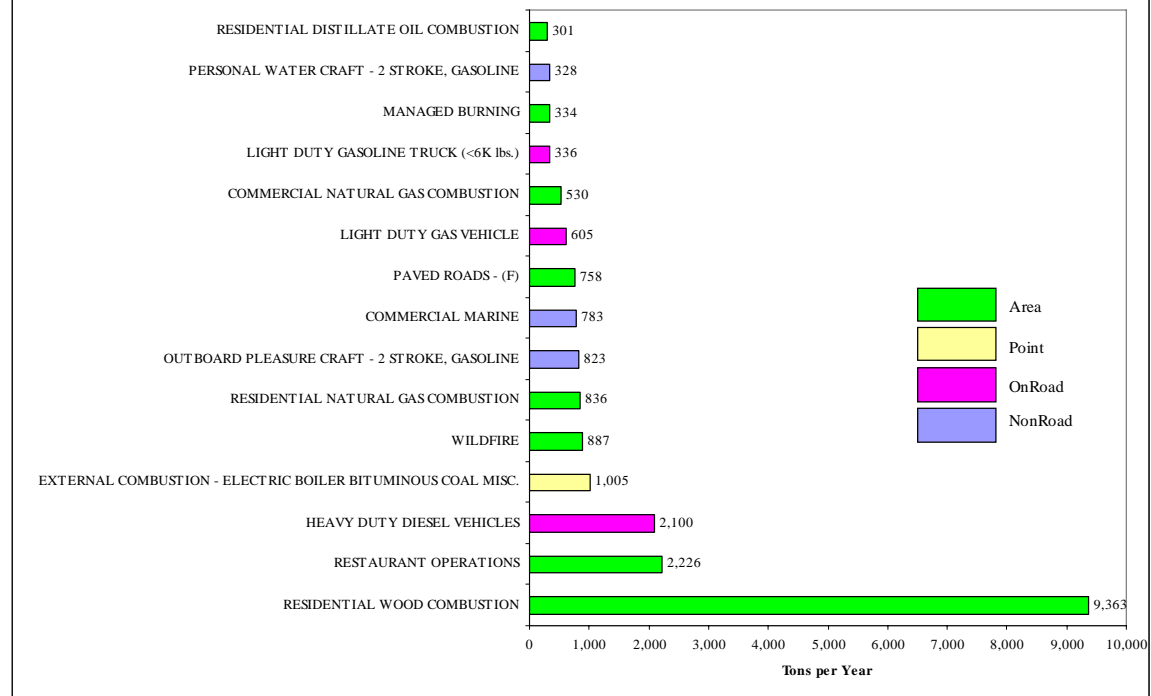
A list of 628 potential non-transportation control measures was compiled through review of various sources, including the USEPA, other states, Regional Planning Organizations (RPOs), New Jersey State Organizations, and existing NJDEP documents.

Measures that addressed a top 15 direct PM<sub>2.5</sub> or SO<sub>2</sub> emitting category in the State 2002 base year inventory or the 2009 projected regional inventory were included in this analysis. Measures that had the potential to achieve high emission reductions regardless of whether or not they addressed a top inventory category (either State or regional) were also included in the analysis. The top 15 direct PM<sub>2.5</sub> and SO<sub>2</sub> emitting categories in the New Jersey 2002 Periodic Emission Inventory and the 2009 Regional inventory are shown in Figures B1, B2, B3 and B4.

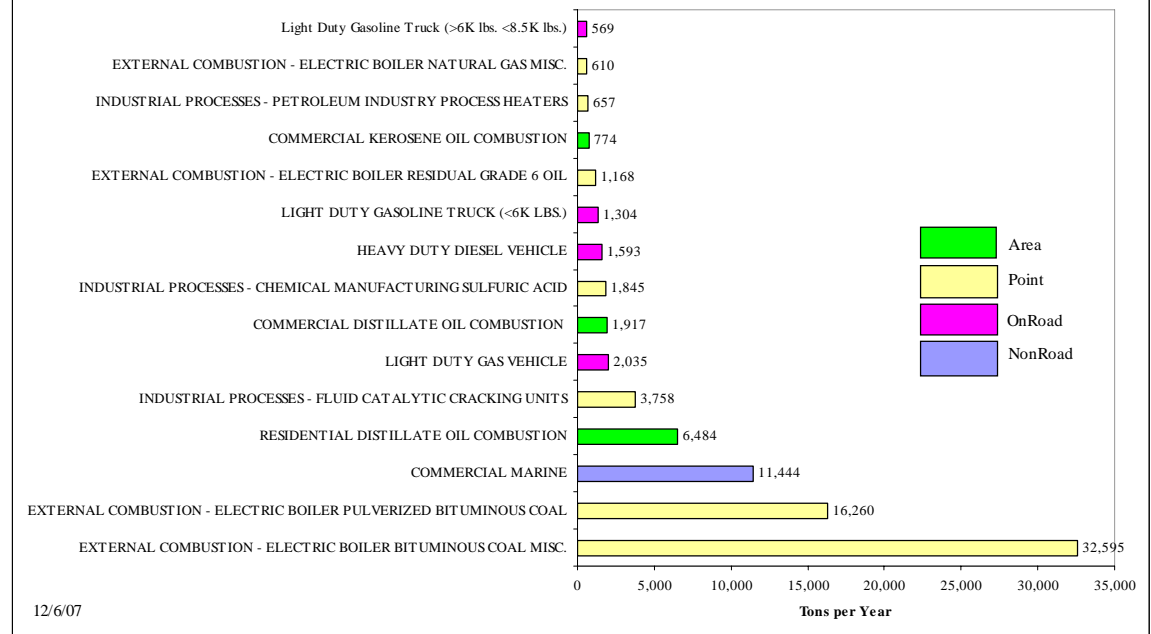
Potential PM<sub>2.5</sub> RACT measures were deleted from the list of measures to be evaluated in the RACM analysis because these measures are addressed in the PM<sub>2.5</sub> RACT analysis (see Appendix A7), and TCMs were separated out because the NJDOT conducted the PM<sub>2.5</sub> TCM analysis.

Any measures that are already in place in New Jersey or are more stringently addressed at the Federal level were not included in the analysis. Measures whose potential emission reduction benefits were not quantifiable and measures that had no net emission reduction benefit in New Jersey were also excluded from the analysis and identical measures were combined.

**Figure A1: 2002 New Jersey PM<sub>2.5</sub> (with Fugitive Dust\*) Emission Inventory Top 15 by SCC**

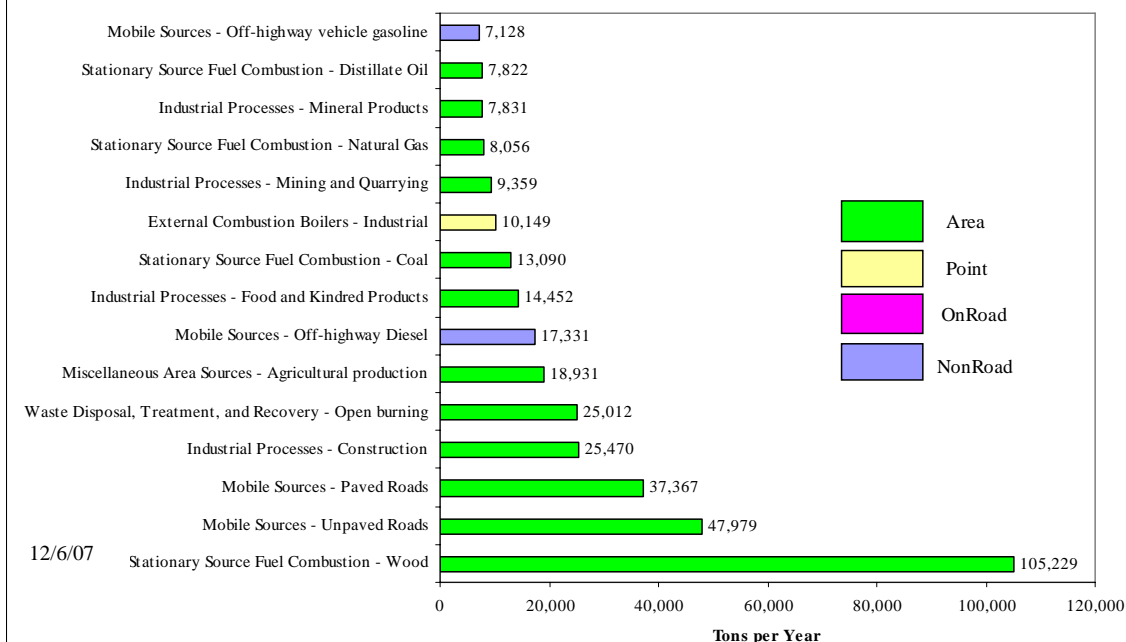


**Figure A2: 2002 New Jersey SO<sub>2</sub> Emission Inventory Top 15 by SCC**

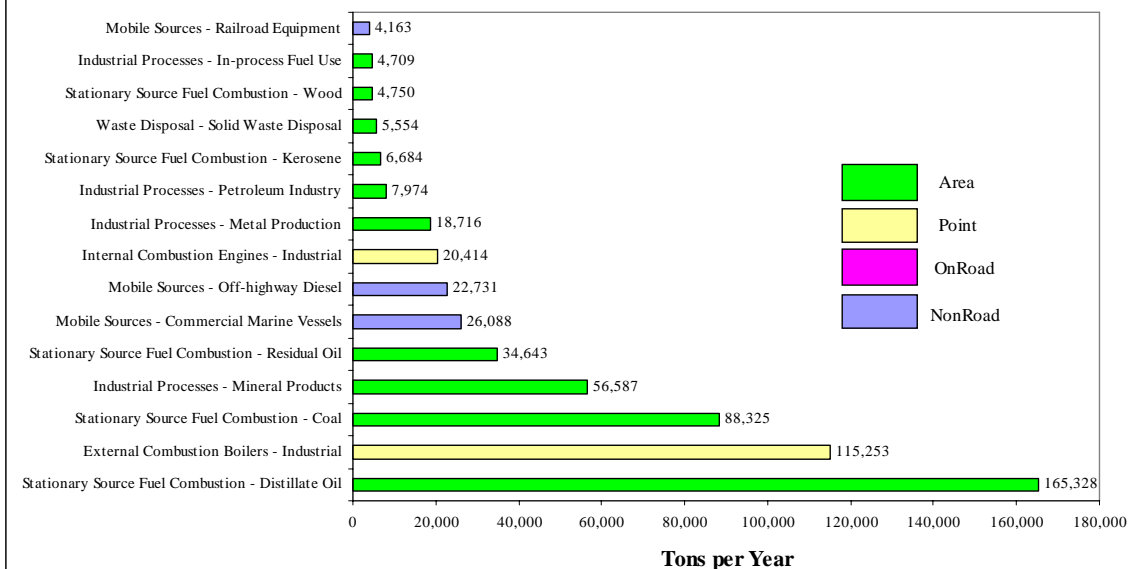


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**Figure A3: 2009 MANE-VU Region PM<sub>2.5</sub> Inventory Top 15**



**Figure A4: 2009 MANE-VU Region SO<sub>2</sub> Emission Inventory Top 15**



For a number of years, it has been recognized that fugitive dust emission inventories, when used in air quality models, substantially over-estimate PM<sub>2.5</sub> ambient crustal emissions when compared to crustal material found in ambient samples. Various efforts

which include work done by the Desert Research Institute (DRI) and USEPA,<sup>9</sup> the AP-42 study,<sup>10</sup> and NESCAUM's Pilot Study<sup>11</sup> reached a consensus opinion that over-estimates in the fugitive dust categories (i.e. paved and unpaved roads, dust from highway, commercial and residential construction, agricultural tilling, windblown dust from agricultural and other exposed land, quarrying, and other earth moving) need correction to compensate for inaccuracies in the inventories. Fugitive dust emissions in Figure A1 are adjusted to correct for this over-estimate.

### *NJDEP Workgroup White Paper Measures*

In June of 2005, the NJDEP launched its "Reducing Air Pollution Together Initiative" designed to open a dialogue between the NJDEP and interested and affected parties about reducing emissions in order to improve air quality in New Jersey. As part of this Initiative, six workgroups were formed to focus on different sources of emissions (i.e., emissions from diesel vehicles, gasoline cars and trucks, homes and restaurants, stationary combustion sources, processes and consumer products, and non-automobile gasoline engines) that contributed to New Jersey's key air quality problems and to recommend control strategies to reduce these emissions. These workgroups developed and submitted to the Department a total of 250 potential control measures recommendations to the NJDEP for consideration, and ranked the measures from highest to lowest potential based on the measures' environmental benefits, technical feasibility, implementation feasibility, economic feasibility, social benefits/Environmental Justice, and ease of enforcement. More information on the NJDEP's "Reducing Air Pollution Together Initiative" can be found on the NJDEP's website at <http://www.nj.gov/dep/airworkgroups/index.html>.

After the workgroup reports were submitted, the 250 workgroup recommended measures were further evaluated by NJDEP and re-ranked using a common scale (High, Medium, Low, and Not Ranked) so that every measure could be compared equally. The NJDEP Air Quality Management Team determined which of the 250 workgroup recommended strategies should be further evaluated for possible inclusion in the SIP and/or considered further for implementation. As a result of these discussions, sixty draft white papers addressing 60 measures were developed by the NJDEP staff, and presented to the public for their review and consideration.<sup>12</sup>

The majority of the white papers were written for VOC and NO<sub>x</sub> measures. Ten of the white paper measures were for PM<sub>2.5</sub> and/or SO<sub>2</sub> measures. Two of the ten white papers

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<sup>9</sup> A Conceptual Model to adjust Fugitive Dust Emissions to Account for Near Source Particle Removal in Grid Model Application, Thompson G. Pace, USEPA 8/22/2003 available from USEPA's website at <http://www.epa.gov/>.

<sup>10</sup> Analysis of Fine Particulate Matter Near Urban Roadways", Balogh, Larson, and Mannering, Transportation Research Record 1416, page 25.

<sup>11</sup> Spatial and Temporal Assessment of Mobile Source Aerosol Indicator During Winter in Boston, Ma.: A Pilot Study; Allen and Johnson, April, 2003.

<sup>12</sup> A complete list of white papers, as well as links to these white papers, can be found at [http://www.nj.gov/dep/airworkgroups/docs/wp\\_summary\\_table\\_web\\_2007.xls](http://www.nj.gov/dep/airworkgroups/docs/wp_summary_table_web_2007.xls) (Accessed November 28, 2007).



were RACT measures and the remaining eight were fully evaluated according to the RACM criteria. The concepts from all eight white paper measures that were evaluated advanced to the final stage of the analysis (advance the attainment date). The eight white paper measures are listed below:

- Increasing the Rate of Small Engine Turnovers and Portable Fuel Container Turnovers through the Use of Incentive-Based Initiatives
- Regional Sulfur Fuel Oil Controls
- Wood Stove and Fireplace Insert Change-out Programs
- A Multi-Stage Approach to Outdoor Wood Burning Equipment
- A Multi-Stage Approach for Wood Burning Issues at the Local Level
- Increasing Public Relations/Outreach/Education and Extending BPU Programs that Address Energy-Efficiency and Renewable Energy
- Restaurant Controls
- Require Owners of Wood Burning Fireplaces to Change-over to Natural Gas Fireplaces and Allow Only Natural Gas Fireplaces in New Construction

#### *NO<sub>x</sub> measures from 8-hour ozone RACM analysis*

There were five NO<sub>x</sub> measures that made it to the final step of the in the 8-hour ozone RACM analysis (advance the ozone attainment date). Two of these measures overlapped with the workgroup white paper measures. Three were added to the non-TCM measures for PM<sub>2.5</sub> RACM analysis. One of these measures advanced to the final stage of the analysis (advance the attainment date) (see “Step II – RACM Criteria Analysis” section).

#### *Step II – RACM Criteria Analysis*

After this careful review of the initial 628 non-TCM control measures, 60 non-TCM control measures advanced to Step II of the analysis.

#### *Technological Feasibility, Economic Feasibility and Other Local Considerations:*

The 60 potential non-TCM control measures were analyzed according to the RACM criteria discussed in Section 1.2.1 for technological feasibility, economic feasibility and other local considerations. The analysis for these criteria was done simultaneously on all 60 measures. If sufficient information was not available for a determination to be made under any criteria, an “N/A” determination was made, and the measure was evaluated for the remaining criteria. In addition, if a measure failed any of the criteria, no further evaluation was conducted on that measure. Table A2.1 in Attachment A2 lists these 60 measures and the determinations for each measure.

A total of 15 viable non-TCM measures listed in Table A1 advanced to the final stage of the analysis (advance the attainment date).

**Table A1: List of 15 Potential Non-TCM RACMs**

Measure Name
Area
Voluntary wood stove and fireplace retrofit/change-out programs
Mandatory wood stove and fireplace retrofit/change-out programs
Amend the Air Pollution control Act to allow counties to regulate outdoor wood
Establish moratorium through Governor's Executive Order or Legislation on sale and distribution of new OWBs until implementation of USEPA's regulations
Establish provisions on minimum chimney height and distances to houses/property lines for outdoor wood boilers
Commitment to adopt State rules in the absence of Federal action
Implement standards for chain driven charbroilers
Energy conservation and "green building" for residential and commercial building
Enhance New Jersey's open burning permit requirements
PM-efficient units for street sweeping
New Jersey to lower the Sulfur content in Fuel Oil
OnRoad
New Jersey to update and strengthen existing opacity requirements
NonRoad
Emission Testing and repair/maintenance program for nonroad heavy duty equipment
Reduce ship speeds near the coast
Voluntary Lawn Mower Replacement Program

### **1.2.3 NJDOT Potential Control Measure Analysis for Transportation Control Measures and Other Onroad Mobile Measures**

TCMs are transportation strategies specific to onroad mobile sources, which reduce emissions by reducing the number and/or length of vehicle trips and/or improve traffic flow. After the passage of the Clean Air Act Amendments of 1990, New Jersey made a full-scale commitment to TCMs.<sup>13</sup> The State's transportation capital program continues to stress transit projects, system preservation, and systems management over the provision of new highway capacity. The NJDOT is committed to continue the support and implementation of air quality-friendly transportation projects programs. The remainder of this section outlines the NJDOT's evaluation of PM<sub>2.5</sub>-related TCMs for RACM purposes.

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<sup>13</sup> The State included 134 TCMs in the original 15% Rate of Progress SIP in 1993. While New Jersey has since opted not to include TCMs in the SIP, the New Jersey Department of Transportation (NJDOT) has continued to commit to the support and implementation of air quality friendly transportation projects and programs.

### Step I – Evaluation Criteria for Potential Transportation Control Measures

Twenty-six (26) TCMs were identified by NJDOT, in consultation with the NJDEP, for consideration in this RACM evaluation. Detailed summaries of each of the 26 measures identified by NJDOT are located in Attachment A3.

### Step II – Identification of Potential Transportation Control Measures

The 26 onroad TCMs were evaluated by the NJDOT based on the criteria outlined in Section 1.2.1. These criteria include technological and economic feasibility, other local considerations (measures that do not cause “substantial widespread and long-term adverse impact” and measures that are not “absurd, unenforceable, and impracticable”), and advancement of the attainment date. Emissions reductions must be sufficient to advance the attainment date in each PM<sub>2.5</sub> nonattainment area from 2010 to 2009, meaning that the measures must be in place by 2008 to achieve reductions in 2008.

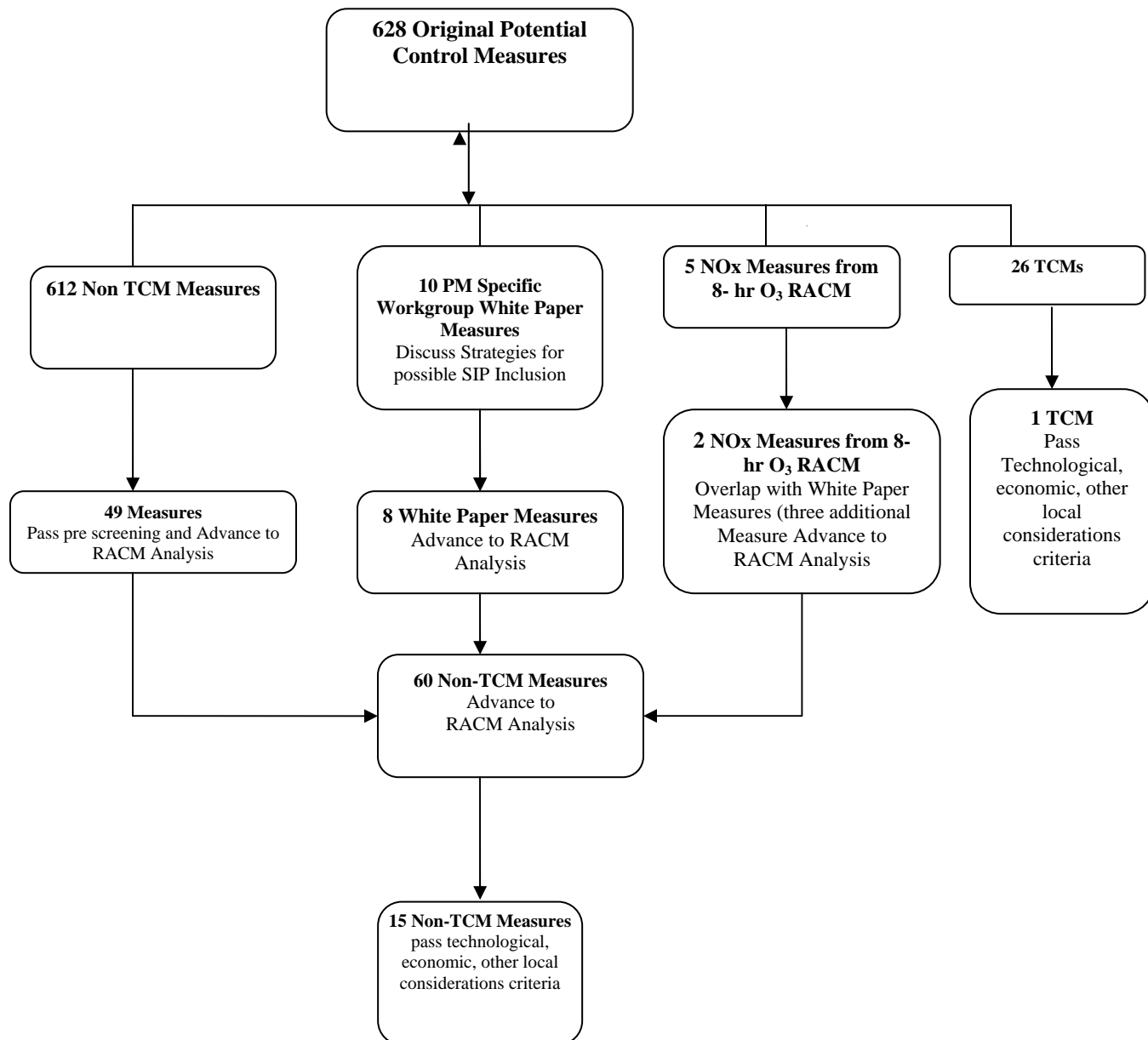
The NJDOT also performed a political feasibility analysis on the 26 measures and ranked the measures as “high,” “medium,” or “low.” The political feasibility analysis is located in Attachment A4. The NJDEP evaluated the rationale for measures that were ranked “medium” or “low” for political feasibility by NJDOT against the RACM criteria described in Section 1.2.1. There were 11 measures that ranked “high” for political feasibility. Many of the potential TCMs are already in place and therefore not considered a RACM. Only one of the 11 measures advanced to the final stage of the RACM analysis. This measure is listed below

***School Bus Replacement*** – All model year 2002 and older buses will be replaced with model year 2007 diesel buses.

### 1.3 Potential Measures Identified

A total of 16 measures (one TCM and 15 Non-TCM) passed the technological feasibility, economic feasibility and “other local considerations” RACM criteria, as shown in Figure B5).

**Figure B5: Identification of Potential Control Measures**



## 1.4 Advancement of Attainment Date

The 16 TCMs and non-TCMs that passed all previously discussed (technological, economic, other local considerations) RACM criteria were analyzed to determine whether or not they had the potential to advance the attainment date. NJDEP determined that none of these 16 measures could be implemented by 2008, and therefore would not achieve any reduction benefits in 2008. As a result, these measures, alone or collectively, would not advance the attainment date. No additional modeling was needed (per USEPA requirement, see Section § 51.1007 in 72 Fed. Reg. 20585 (April 25, 2007)) to make this determination).

## 1.5 RACM Conclusion

New Jersey reviewed over 600 potential control measures to determine if these measures should be implemented to assist with attaining the health standard and also help improve the air quality in New Jersey. The control measures were also evaluated based on the RACM criteria discussed in Section 1.2.1 and it was determined that none could be implemented by 2008 in order to provide emission benefits by 2009. Therefore, none of the potential control measures are considered RACM for the purposes of the 1997 annual PM<sub>2.5</sub> NAAQS and it is unnecessary to include any of these measures in the State's 1997 annual PM<sub>2.5</sub> attainment plan.

Even though none of these potential measures could be implemented by 2008, they include some promising measures that New Jersey considered implementing to assist in attaining the health standards and for future strategies. In addition, New Jersey is already addressing some of the source categories addressed by these measures, as well as other significant contributing sources to reduce PM<sub>2.5</sub> emissions. The remainder of this Section discusses the most promising of these source categories and what New Jersey is currently doing and/or plans to do to address these sources in the future.

### *a. Open burning/Outdoor wood burning – Smoke Management Plans*

New Jersey already has a regulation in place to control emissions from open burning at N.J.A.C. 7:27-2, Control and Prohibition of Open Burning<sup>14</sup>, and is considering changes to agricultural burning portion of these requirements. This source category is also addressed in the “Smoke Management” Section of the proposed Regional Haze SIP (including the agricultural and forestry smoke management, prescribed burning, and agricultural management discussions in that SIP proposal).<sup>15</sup>

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<sup>14</sup> Available at <http://www.state.nj.us/dep/aqm/Sub%202002%20v1994-06-20.pdf> (Accessed November 19, 2007).

<sup>15</sup> The first regional haze air quality protection plan for New Jersey was proposed September 15, 2008 (see Chapter 1 for further details).

*b. Change-out programs*

Control measures include wood stove and fireplace change-out programs, and lawn mower replacement programs. Financial incentives would be necessary to ensure a productive program. New Jersey would consider implementing a change-out program in the future if funds become available.

*c. Control fugitive dust emissions*

The New Jersey Municipal Stormwater Regulation program<sup>16</sup> requires the streets in the State to be swept on a regular basis. This measure also has air quality benefits by the removal of a source of fugitive dust such as dust from tire and break wear.

New Jersey also has standards that would reduce fugitive emissions from various sources such as tillage and construction. These standards have been adopted by NJDOT and New Jersey Department of Agriculture (NJDOA) under the “Soil Erosion and Sediment Control Standards: Standards for Dust Control.”<sup>17,18</sup>

Control of fugitive dust at major industrial facilities throughout the State is a viable PM<sub>2.5</sub> RACT measure and will be addressed by a new rule expected to be proposed in 2009, in accordance with the New Jersey Administrative Procedures Act (APA) (N.J.S.A. 52:14B-1 et. Seq.) and the Air Pollution Control Act (APCA) (N.J.S.A. 26:2C-1 et seq.). For more information, see the PM<sub>2.5</sub> RACT analysis in Appendix A7.

*d. Energy conservation and “green building”*

New Jersey currently provides for rebates and other financial incentives to install energy-efficiency measures in a home. The New Jersey Department of Community Affairs (NJDECA) has minimum design standards for some appliances. The New Jersey Clean Energy Program (NJCEP) and the New Jersey Energy Master Plan (NJEMP) are programs that encourage energy conservation.

*e. Train engines*

New Jersey Transit (NJ Transit) has voluntarily implemented an “Idling Reduction Policy” which says that there is no idling when the temperature is above zero degrees.

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<sup>16</sup> NJDEP. 2006 Annual Report summary on New Jersey’s Stormwater Regulation program is available at <http://www.state.nj.us/dep/dwq/pdf/2006msrpannuareportlong.pdf> (Accessed November 19, 2007).

<sup>17</sup> New Jersey Department of Transportation. Soil Erosion and Sediment Control Standards (Approved January 18, 1989). Standards for Dust Control, pg 2-10-1.

<sup>18</sup> New Jersey Department of Agriculture. Soil Erosion and Sediment Control Act Rules (July 1999) N.J.A.C 2:90-1.

#### *f. Truck Stop Electrification*

On October 20, 2004, the first Electrified Truck Stop in New Jersey was opened at the Travel Centers of America truck stop in Paulsboro, Gloucester County, New Jersey. The Truck stop has ninety-eight truck electrification bays equipped with IdleAire Service Modules. These modules mount on the cab's passenger window to provide heat, ventilation, air conditioning, power for the refrigeration unit and appliances as well as cable TV, telephone and Internet service. New Jersey encourages the use of this technology to reduce PM<sub>2.5</sub> emissions from diesel trucks. New Jersey opened another electrified truck stop with ninety-two electrification bays at Petro Travel Center #382, in Bordentown, Burlington County, New Jersey on June 26, 2007. An electrified truck stop at the Vince Lombardi Rest Area in Ridgefield, Bergen County, New Jersey, is scheduled to begin construction within the next six months. New Jersey also has an electrified truck stop with sixty-three bays at Travel Centers of America #006, in Columbia, Warren County, New Jersey, and is considering other locations for electrification, as well.

#### *g. Idling Rule*

New Jersey has revised its Idling Rule at N.J.A.C. 7:27-14.3 (Effective July 25, 2007) to remove the sleeper berth exemption no later than April 30, 2010.

#### *h. Diesel Smoke Rule Changes*

New Jersey currently has opacity requirements for periodic and roadside inspections of emissions of diesel vehicles. New Jersey is in the process of updating and strengthening the existing requirements and updating the Pass/Fail Standards for the periodic and roadside inspections.

#### *i. Ports*

New Jersey is working with the Port of New York/New Jersey to develop a plan to reduce emissions, including fine particulate emissions. Some of these measures include replacing or upgrading all container trucks that frequently visit the port such that they meet or are cleaner than the USEPA 2007 onroad emission standard, conduct targeted enforcement sweeps for idling and smoke violations, require clean construction and operations at Port fields and encourage clean partners, non-road equipment upgrade to newer models with lower emissions, and fuel switching from diesel to electricity.

#### *j. Medium Duty Motor Vehicles*

New Jersey is piloting an effort to review measures that would help control particulate emissions from Medium Duty Motor Vehicle with a gross weight between 8,501 – 17,999 pounds.