

# *Connecticut Department of Transportation*

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Central Naugatuck Valley Metropolitan Planning Organization  
Greater Bridgeport Valley Metropolitan Planning Organization  
South Central Region Metropolitan Planning Organization  
South Western Region Metropolitan Planning Organization  
Housatonic Valley Metropolitan Planning Organization

## **PM 2.5 Air Quality Conformity Determination**

of the  
2015 Regional Transportation Plans and the  
FY 2018-2021 Transportation Improvement Programs Amendments  
for the Connecticut portion of  
the NY-NJ-CT  
PM<sub>2.5</sub> Attainment/Maintenance Area

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**May 2017**

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*Note: The five Connecticut MPOs (CNVMPO, GBVMPO, HVMPO, SCRCOG and SWRMPO) are part of the larger NY-NJ-CT PM<sub>2.5</sub> Attainment/Maintenance Area and this document includes the documentation of the regional analysis for the entire Connecticut portion of the Attainment/Maintenance area, as well as documentation and information on the processes and procedures undertaken by CTDOT, coordinator of the Air Quality Conformity for the five Connecticut Metropolitan Planning Organizations.*

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# **Regional Emissions Analysis**

## **1) OVERVIEW**

In March 2007, the Metropolitan Planning Organizations (MPOs) in Connecticut proposed to update their Long Range Transportation Plans (LRTPs). These revisions to Connecticut's LRTPs required a new multi-state transportation conformity determination for fine particulate matter (PM<sub>2.5</sub>). Therefore, the November 2006 NY-NJ-CT PM<sub>2.5</sub> non-attainment area conformity determination was revised to reflect emission projections from the new or revised, non-exempt projects in Connecticut's 2007-2035 LRTPs. On April 17, 2007, the Connecticut Department of Energy and Environmental Protection (CTDEEP) submitted to the U.S. Environmental Protection Agency (EPA) its State Implementation Plan (SIP) Revision for Establishment of Interim Progress for the Fine Particle National Ambient Air Quality Standard (NAAQS) and early fine particulate (PM<sub>2.5</sub>) transportation conformity emission budgets. The SIP revision identified year 2009 annual direct PM<sub>2.5</sub> and annual nitrogen oxides (NOx) Motor Vehicle Emission Budgets (MVEBs) associated with the Interim/Early Progress SIP. The annual 2009 MVEBs for the Connecticut portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT PM<sub>2.5</sub> Area were 360 tons per year of direct PM<sub>2.5</sub> and 18,279 tons per year of NOx.<sup>1</sup> These emissions budgets were found adequate as of June 20, 2007 and were approved into the Connecticut SIP on August 30, 2007.

The annual 2009 motor vehicle emissions budgets for the Connecticut portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT PM<sub>2.5</sub> Area were determined adequate through a May 24, 2007 letter from Anne E. Arnold, Manager Air Quality Planning Unit, EPA New England Regional Office to Anne Gobin, Chief CTDEEP and a June 5, 2007 Federal Register Notice of Adequacy. The adequacy process made the MVEBs effective June 20, 2007 for transportation conformity determinations.

The annual 2009 motor vehicle emissions budgets for the Connecticut portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT PM<sub>2.5</sub> Area were approved into the Connecticut SIP through a direct final rulemaking Federal Register on August 30, 2007 (72 FR 50029). This SIP element "2009 Early Progress Direct PM<sub>2.5</sub> and NOx Motor Vehicle Emission Budgets (MVEBs) for Transportation Conformity Purposes; Connecticut; New York-Northern New Jersey-Long Island, NY-NJ-CT PM<sub>2.5</sub> Area" became effective on October 29, 2007.

On December 14, 2009, EPA's final rule designating areas for the 2006 PM<sub>2.5</sub> NAAQS became effective. This Air Quality Conformity analysis is being prepared to meet both the 1997 Annual PM<sub>2.5</sub> NAAQS and the 2006 24-hour PM<sub>2.5</sub> NAAQS.

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<sup>1</sup> Letter from U.S. EPA to Anne Gobin, Chief CTDEP, dated May 24, 2007.

This report was prepared to document the emissions analysis that was completed to evaluate Fiscal Year 2015-2018 Conformity of the Statewide Transportation Improvement Program (STIP) Amendments and the 2015 LRTPs to the SIP for air quality. This submittal incorporates the FY 2015 - 2018 STIP and 2015 LRTPs from Connecticut's Regional Planning Organizations (RPO), and the 2017 and 2025 MOVES2010b emissions budgets deemed adequate by EPA and effective as of February 20, 2013<sup>2</sup>. EPA's guidance for maintenance plans calls for a demonstration of continued compliance by showing that future emissions during the maintenance period will not exceed the level of emission in the attainment inventory.

The end of the maintenance period was established as 2025, consistent with the CAA section 175A(a) requirement that the plan provide for maintenance of the NAAQS for at least 10 years after EPA formally approves the redesignation request. Emission estimates were developed for direct PM<sub>2.5</sub>, as well as for the most important PM<sub>2.5</sub> precursor NOx. Emissions are projected to decrease from the levels in the 2007 attainment inventory through the end of the maintenance period in 2025, including in the selected interim year of 2017, thus providing for continuing maintenance of the NAAQS.

The report is submitted to satisfy the requirements of the SIP, as revised.

## **2) PURPOSE AND NEED**

### *a - What is Transportation Conformity?*

Transportation Conformity is the process, established by joint guidance from the United States Department of Transportation (USDOT) and the United States Environmental Protection Agency (EPA) that ensures that transportation investments will contribute to improving air quality in areas where concentrations of certain pollutants exceed national air quality standards. Transportation conformity as it currently exists emerged from the passage of environmental and transportation legislation in the early 1990s (Clean Air Act Amendments of 1990 and the Intermodal Surface Transportation Efficiency Act of 1991). EPA promulgated a transportation conformity rule initially in 1993. The latest amendment to the transportation conformity rule, Transportation Conformity Rule, Amendments to Implement Provisions Contained in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, Final Rule was published January 24, 2008 (73 FR 4420).

Other recent conformity rules related to particulate matter include: PM<sub>2.5</sub> and PM<sub>10</sub> Hot-Spot Analyses in Project-Level Transportation Conformity Determinations for the New PM<sub>2.5</sub> and

<sup>2</sup> Federal Register, February 15, 2013. EPA-R01-OAR-2013-0020; A-1-FRL-9776-2 Adequacy Status of Motor Vehicles Emission Budgets for Transportation Conformity Purposes; Connecticut <http://www.gpo.gov/fdsys/pkg/FR-2013-02-05/pdf/2013-02492.pdf>

Existing PM<sub>10</sub> National Ambient Air Quality Standards; Final Rule March 10, 2006 (71 FR 12468); Transportation Conformity Rule Amendments for the New PM<sub>2.5</sub> National Ambient Air Quality Standard: PM<sub>2.5</sub> Precursors; Final Rule May 6, 2005 (70 FR 24280), [Note: On June 1, 2005, (70 FR 31354), EPA published a Final Rule correction effective June 6, 2005 for Transportation Conformity Rule Amendments for the New PM<sub>2.5</sub> National Ambient Air Quality Standard: PM<sub>2.5</sub> Precursors]; and, Transportation Conformity Rule Amendments for the New 8-hour Ozone and PM<sub>2.5</sub> National Ambient Air Quality Standards and Miscellaneous Revisions for Existing Areas; Transportation Conformity Rule Amendments: Response to Court Decision and Additional Rule Changes; Final Rule July 1, 2004 (69 FR 40004).

Recently EPA published Transportation Conformity Rule PM<sub>2.5</sub> and PM<sub>10</sub> Amendments, Final Rule March 24, 2010 (75 FR 14259-14285). Transportation Conformity rulemaking actions can be found on EPA's Office of Transportation and Air Quality web site at URL address:

<http://www.epa.gov/otaq/stateresources/trasconf/conf-reg.htm>

Transportation conformity works in the following way:

- EPA establishes National Ambient Air Quality Standards (NAAQS) based on public health research. The standards set maximum concentrations of six criteria pollutants in the ambient (outdoor) air.
- EPA designates parts of the country where the NAAQS are exceeded as a “non-attainment area.” States that have non-attainment areas within their boundaries are required to submit State Implementation Plans (SIPs) to EPA to demonstrate how the non-attainment areas will improve their air quality and meet the NAAQS in the timeframe specified by the Clean Air Act.
- Non-attainment areas must conform their transportation plans, programs and projects to their area’s motor vehicle emissions budget that is contained within its SIP. If a state does not yet have SIP emissions budgets in place, interim emission tests must be passed to show conformity.

Under the Conformity Rules, the following test for PM<sub>2.5</sub> and NOx must be met:

- TEST: Emissions from future Action Scenarios from 2017 on, must be less than the 2017 Motor Vehicle Emission Budgets
- TEST: Emissions from future Action Scenarios from 2025 on, must be less than the 2025 Motor Vehicle Emission Budgets

To do this, MPOs use a model created by the EPA that applies emission factors to the region's vehicle fleet. These emission factors are combined with vehicle miles traveled data, which is generated by an MPO's travel demand model. The travel demand model uses the region's highway network, estimated travel conditions and demographic data to estimate where trips begin and end.

It is important to note that the transportation conformity determination is based on the mix of new and existing projects and the current infrastructure. Some projects, particularly highway capacity expansions, may be individually deleterious to air quality but are offset by beneficial initiatives such as new transit projects and engineering improvements that mitigate local congestion or reduce vehicular travel. The conformity regulations recognize this balance between projects that increase and reduce emissions by requiring that MPOs demonstrate that the overall set of investments moves the region toward cleaner air, in keeping with EPA policies.

#### ***b - Background on Fine Particulate Matter (PM<sub>2.5</sub>)***

Fine particulate matter, also called PM<sub>2.5</sub>, is a mixture of microscopic solids and liquid droplets suspended in air, where the size of the particles is equal to or less than 2.5 micrometers (about one-thirtieth the diameter of a human hair). Fine particles can be emitted directly (such as smoke from a fire, or as a component of automobile exhaust) or be formed indirectly in the air from power plant, industrial and mobile source emissions of gases such as sulfur dioxide and nitrogen oxides.

The health effects associated with exposure to fine particles are serious. Scientific studies have shown significant associations between elevated fine particle levels and premature death. Effects associated with fine particle exposure include aggravation of respiratory and cardiovascular disease (as indicated by increased hospital admissions, emergency room visits, absences from school or work, and restricted activity days), lung disease, decreased lung function, asthma attacks, and certain cardiovascular problems such as heart attacks and cardiac arrhythmia. While fine particles are unhealthy for anyone to breathe, people with heart or lung disease, asthmatics, older adults, and children are especially at risk.

#### ***c - PM<sub>2.5</sub> National Ambient Air Quality Standards***

In July 1997, EPA issued NAAQS for PM<sub>2.5</sub>, designed to protect the public from exposure to PM<sub>2.5</sub> at levels that may cause health problems. The standards include an annual standard set at 15 micrograms per cubic meter, based on the three year average of annual PM<sub>2.5</sub>

concentrations and a 24-hour standard of 65 micrograms per cubic meter based on the three-year average of 24-hour concentrations. In general, areas need to meet both standards to be considered to attain PM<sub>2.5</sub> NAAQS.

Areas not meeting the PM<sub>2.5</sub> NAAQS are called PM<sub>2.5</sub> non-attainment areas. These areas have had or contributed to PM<sub>2.5</sub> levels higher than allowed under the NAAQS. Non-attainment areas are subject to transportation conformity, through which local transportation and air quality officials coordinate planning efforts to ensure that transportation projects do not hinder an area's ability to reach its clean air goals. Transportation conformity requirements become effective one year after an area is designated as a non-attainment area.

EPA issued official designations for the PM<sub>2.5</sub> standard on December 17, 2004 and made modifications in April 2005. On April 5, 2005, designations under the national air quality standards for fine particle pollution or PM<sub>2.5</sub> became effective. Therefore, by April 4, 2006, all PM<sub>2.5</sub> non-attainment areas were required to implement transportation conformity. Under the EPA designation, non-attainment areas are required to meet the PM<sub>2.5</sub> NAAQS as soon as possible, but no later than 2010. EPA may grant attainment date extensions of up to five years in areas with more severe PM<sub>2.5</sub> problems and where emissions control measures are not available or feasible.

EPA has determined that meeting the PM<sub>2.5</sub> NAAQS nationwide will annually prevent at least 15,000 premature deaths; 75,000 cases of chronic bronchitis; 10,000 hospital admissions for respiratory and cardiovascular disease; hundreds of thousands of occurrences of aggravated asthma; and 3.1 million person-days of missed work due to symptoms related to particle pollution exposure.

On April 17, 2007, Connecticut Department of Environmental Protection submitted a SIP Revision for 2009 Early Progress Direct PM<sub>2.5</sub> and NOx Motor Vehicle Emission Budgets for Transportation Conformity Purposes; Connecticut; New York-Northern New Jersey-Long Island, NY-NJ-CT PM<sub>2.5</sub> Area. (See <http://www.regulations.gov> search on docket number EPA-R01-OAR- 2007-0373).

States with designated PM<sub>2.5</sub> non-attainment areas had to submit SIPs that outline how they will meet the PM<sub>2.5</sub> NAAQS within three years of April 5, 2005. On November 18, 2008 CTDEEP submitted a SIP Revision "Attainment Demonstration for the 1997 Annual PM<sub>2.5</sub> National Ambient Air Quality Standard for the Connecticut portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT PM<sub>2.5</sub> Non-attainment Area". EPA determined Connecticut's PM<sub>2.5</sub> attainment demonstration SIP to be administratively and technically complete on January 8, 2009.

On October 17, 2006, EPA issued a final rule which tightened the 24-hour PM<sub>2.5</sub> NAAQS from the 1997 level of 65 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) to 35  $\mu\text{g}/\text{m}^3$  (71FR61144). In this final rule, EPA retained the 1997 annual PM<sub>2.5</sub> NAAQS of 15.0  $\mu\text{g}/\text{m}^3$ . EPA's final rule designating non-attainment areas for the 2006 PM<sub>2.5</sub> NAAQS, published in the *Federal Register* on November 13, 2009, was effective December 14, 2009.

A MPO and the U.S. Department of Transportation (U.S.DOT) must make a conformity determination with regard to the 2006 PM<sub>2.5</sub> NAAQS for the metropolitan transportation plan and TIP within one year after the effective date of the initial non-attainment designation for this NAAQS, as stated in 40CFR Part 93, "Transportation Conformity Rule PM<sub>2.5</sub> and PM<sub>10</sub> Amendments; Final Rule", dated March 24, 2010.

On June 22, 2012, CTDEEP submitted a "PM<sub>2.5</sub> Redesignation/Maintenance State Implementation Plan" which established new Motor Vehicle Emission Budgets for 2017 and 2025 using new EPA required software, MOVES 2010b. These budgets were deemed adequate by EPA and effective as of February 20, 2013.

Monitoring data show that the NY-NJ-CT multi-state area has achieved compliance with both the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS since 2009. On November 15, 2010, EPA published a formal determination that the NY-NJ-CT multi-state area had achieved measured attainment of the 1997 annual PM<sub>2.5</sub> NAAQS. EPA published a similar finding for the 2006 24-hour PM<sub>2.5</sub> NAAQS on December 31, 2012. DEEP monitoring data also indicate that Connecticut complies with the 2012 annual NAAQS.

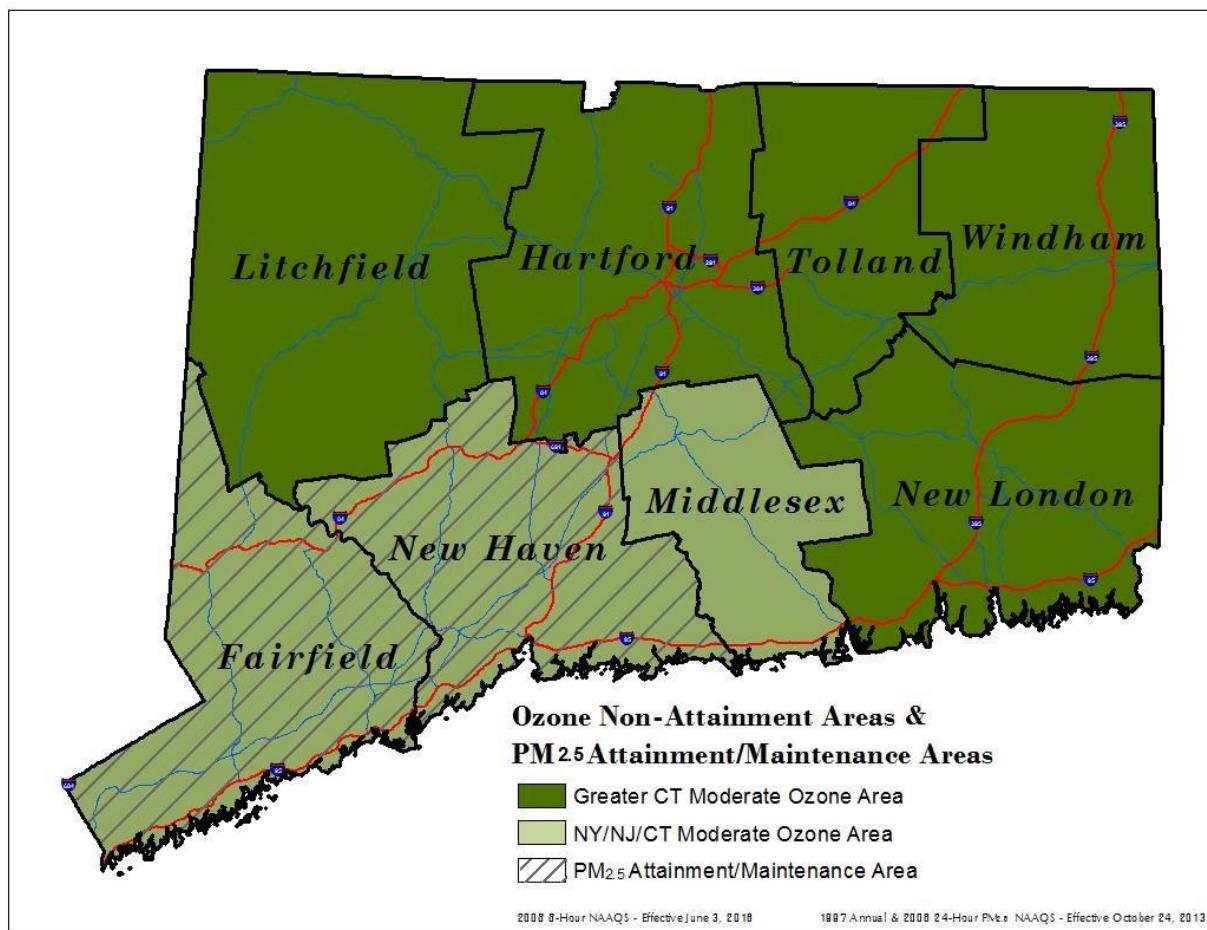
On June 22, 2012, DEEP formally submitted to the EPA, the final PM<sub>2.5</sub> redesignation request and maintenance plan State Implementation Plan (SIP) for Connecticut's portion of the NY-NJ-CT PM<sub>2.5</sub> Nonattainment Area. The plan demonstrated that Connecticut's air quality met both the 1997 annual and the 2006 24-hour PM<sub>2.5</sub> NAAQS due to a combination of national, regional and local control measures implemented to reduce emissions and presented a maintenance plan that ensures continued attainment through the year 2025. On September 24, 2013, EPA published its approval of the PM<sub>2.5</sub> redesignation request, establishing October 24, 2013 as the effective date of redesignation to attainment/maintenance for Connecticut's portion of the NY-NJ-CT Area for both the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS.

This report was prepared to show conformity for the 1997 Annual PM<sub>2.5</sub> NAAQS and the 2006 PM<sub>2.5</sub> 24-hour NAAQS by meeting new MOVES2010b 2017 and 2025 motor vehicle budgets as discussed above.

The Metropolitan Planning Organizations (MPOs) within this area are as follows:

1. South Western Region Metropolitan Planning Organization (SWRMPO)
2. Housatonic Valley Metropolitan Planning Organization (HVMPO)
3. Central Naugatuck Valley Metropolitan Planning Organization (CNVMPO)
4. Greater Bridgeport Valley Metropolitan Planning Organization (GBVMPO)
5. South Central Region Metropolitan Planning Organization (SCRMPO)

Figure 1 below shows the Connecticut counties included in the PM<sub>2.5</sub> attainment/maintenance area.



**Figure 1: Connecticut Portion of the NY-NJ-CT PM<sub>2.5</sub> Attainment/Maintenance Area**

#### *d – PM<sub>10</sub> Attainment/Maintenance Area*

EPA previously designated the City of New Haven as Nonattainment with respect to the National Ambient Air Quality Standards (NAAQS) for particulate matter with a nominal diameter of ten microns or less (PM<sub>10</sub>). The PM<sub>10</sub> Nonattainment status in New Haven was a local problem stemming from activities of several businesses located in the Stiles Street section of the City. Numerous violations in the late 1980's and early 1990's of Section 22a-174-18 (Fugitive Dust) of CTDEEP regulations in that section of the city led to a nonattainment designation (CTDEEP, 1994: Narrative Connecticut Department of Energy and Environmental Protection, State Implementation Plan Revision For PM<sub>10</sub>, March 1994). Corrective actions were subsequently identified in the State Implementation Plan and implemented, with no violations of the PM<sub>10</sub> NAAQS since the mid-1990's.

All construction activities undertaken in the City of New Haven are required to be performed in compliance with Section 22a-174-18 (Control of Particulate "Emissions") of the CTDEEP regulations. All reasonable available control measures must be implemented during construction to mitigate particulate matter emissions, including wind-blown fugitive dust, mud and dirt carry out, and re-entrained fugitive emission from mobile equipment. The projects contained in the STIP and Plans, designated within the City of New Haven, are expected to have little effect on the overall projected vehicle miles of travel for the area and are not expected to cause significant additional airborne particulate matter to be generated. The transportation projects initiated in New Haven are not designed to enhance development in the area. Therefore, the projects undertaken in this area will not have a detrimental effect on PM<sub>10</sub> in New Haven.

On October 13, 2005, EPA published in the Federal Register (Vol. 70, No. 197), approval of a request by CTDEEP for a Limited Maintenance Plan and redesignation of the New Haven Nonattainment Area to Attainment for the National Ambient Air Quality Standards for PM<sub>10</sub>. This direct final rule became effective on December 12, 2005.

As with limited maintenance plans for other pollutants, emissions budgets are considered to satisfy transportation conformity's "budget test". However, future "project level" conformity determination may require "hot spot" PM<sub>10</sub> analyses for new transportation projects with significant diesel traffic in accordance with EPA's Final Rule for "PM<sub>2.5</sub> and PM<sub>10</sub> Hot-Spot Analyses in Project-level Transportation Conformity Rule PM<sub>2.5</sub> and PM<sub>10</sub> Amendments; Final Rule (75 FR 4260, March 24, 2010) which became effective on April 23, 2010.

### **3) CONNECTICUT PM<sub>2.5</sub> ATTAINMENT MAINTENANCE AREA**

The New Jersey – New York – Connecticut multi-state non-attainment area was designated by EPA because this region's air quality fails to meet the annual PM<sub>2.5</sub> NAAQS. As EPA New England has determined the MOVES2010b 2017 and 2025 motor vehicle emissions budgets submitted on June 22, 2012 to be adequate for transportation conformity purposes, the emissions analysis in this report will be limited to these areas only and the budgets effective as of February 20, 2013.

The non-attainment areas under the 2006 PM<sub>2.5</sub> 24-hour NAAQS are the same as under the 1997 PM<sub>2.5</sub> non-attainments areas. Since the 1997 PM<sub>2.5</sub> non-attainment area has an adequate budget, EPA states that to be consistent with the Clean Air Act, the areas must meet the budget test for the 2006 PM<sub>2.5</sub> NAAQS using existing adequate or approved SIP budgets for the 1997 PM<sub>2.5</sub> NAAQS. Effective October 24, 2013, the Connecticut portion of the New Jersey – New York – Connecticut multi-state PM<sub>2.5</sub> Non-Attainment Areas were redesignated as Attainment Maintenance.

### **4) INTERAGENCY CONSULTATION**

An Interagency Consultation Meeting was held on February 7, 2017 to review the air quality codes for projects funded in the regions' Transportation Improvement Plans and the 2015 Long Range Transportation Plans. The meeting also discussed the analysis years to be modeled.

The project Air Quality coding is as follows:

CC – Conformity Analysis Completed

M – Modeled in the Department's highway or transit networks

NM – Requires modeling and will be included into the Department's highway and transit networks prior to conformity analysis

NRS – a highway or transit project on a facility that does not serve regional needs or is not normally included in the regional travel simulation model and does not fit into an exempt project category in Table 2 or 3 of the Final Rule (40 CFR 93).

RS – Regionally significant refers to a transportation project in the TIP and/or STIP (other than an exempt project) that is on a facility which serves regional transportation needs (such as access to and from the area outside of the region, major activity centers in the regions, major planned development such as new retail malls, sports complexes, etc., or

transportation terminals as well as most terminals themselves) and would normally be included in the modeling of a metropolitan area's transportation network, including at a minimum all principal arterial highways and all fixed guide-way transit facilities that offer an alternative to regional highway travel (40 CFR 93.101). Once a project is identified as regionally significant, it must be included in the analysis regardless of funding source.

Exempt Project – a project listed in Table 2 or 3 of the Final Rule (40 CFR 93) that primarily enhances safety or aesthetics, maintains mass transit, continues current levels of ridesharing, or builds bicycle and pedestrian facilities.

X6 - Project exempt from the requirement to determine conformity under 40 CFR 93.126

X7 – Project exempt from regional emissions analysis requirements under 40 CFR 93.127

X8 – Traffic synchronization projects may be approved, funded and implemented without satisfying conformity requirements under 40 CFR 93.128

It was agreed upon that the 2011 vehicle registration data file would be utilized for this Conformity Determination and CTDEEP and CTDOT staff would discuss update of this file at a May 2016 meeting.

A copy of the minutes of the Interagency Consultation Meeting is included in Appendix A, as well as a list of attendees and call-in participants. The final emissions analysis was prepared and the report was distributed for the 30-day public comment period.

## **5) PUBLIC CONSULTATION**

As required by the Final Rule, the transportation conformity process must include public consultation on the emissions analysis and conformity determination for PM<sub>2.5</sub> determinations. This includes posting of relevant documentation and analysis on a “clearinghouse” webpage maintained through the interagency consultation process. All MPOs in the Connecticut PM<sub>2.5</sub> non-attainment area must provide thirty-day public comment periods and address any comments received. For this PM<sub>2.5</sub> transportation conformity determination, all Connecticut MPOs will hold a thirty-day public comment period.

## **6) PM<sub>2.5</sub> EMISSIONS ANALYSIS**

As stated above, EPA has found that the 2017 and 2025 MVEBs in the June 22, 2012 Connecticut SIP revision are adequate for transportation conformity purposes and effective as of February 20, 2013. Table 1 shows the MOVES2010b MVEBs for 2017 and 2025.

**Table 1: Adequate Motor Vehicle Emissions Budgets - MOVE2010b**

	<b>Direct PM<sub>2.5</sub></b> (Tons/Year)	<b>NOx</b> (Tons/Year)
<b>Year 2017 MVEBs for the Connecticut portion of the New York- Northern New Jersey-, Long Island, NY-NJ-CT PM<sub>2.5</sub> Area</b>	575.8	12,791.8
<b>Year 2025 MVEBs for the Connecticut portion of the New York- Northern New Jersey-, Long Island, NY-NJ-CT PM<sub>2.5</sub> Area</b>	516.0	9,728.1

The PM<sub>2.5</sub> budget emissions are the amount to which projected future emissions resulting from implementation of Plans and TIPs will be compared.

Per 75 FR 14271, as the non-attainment boundary for the 2006 Connecticut portion of the NY-NJ-CT PM<sub>2.5</sub> Non-attainment Area is exactly the same as the 1997 PM<sub>2.5</sub> boundary, the budget test for the 2006 PM<sub>2.5</sub> NAAQS must use the existing adequate or approved SIP budgets for the 1997 PM<sub>2.5</sub> NAAQS.

EPA regulations require that emissions analysis be conducted for specific analysis years. Section 93.119(g) of the Final Rule states that these analysis years must include:

- Attainment or near term year
- The last (horizon) year of the regions' long range transportation plan
- An intermediate year or years such that the analysis years are no more than 10 years apart

The attainment year is based upon the Clean Air Act section 172(a)(2) which states that the attainment year for the 2006 PM<sub>2.5</sub> areas will be 2014, five years after the effective date of designations (December 14, 2009). The year 2017 is also within five years (near-term) of the year in which the analysis is being performed (2015). Furthermore, because this attainment/maintenance area includes multiple MPOs, the last year of all of the MPOs' Plans must be included as analysis years. Within the Connecticut PM<sub>2.5</sub> attainment area, the plan horizon year is 2040. Intermediate years of 2025 and 2035 have been selected so that no two-analysis years are more than 10 years apart. Therefore, the analysis years for this conformity determination are 2017, 2025, 2035 and 2040.

## **7) CONNECTICUT PM<sub>2.5</sub> REGIONAL EMISSIONS ANALYSIS COMPONENTS**

PM<sub>2.5</sub> emissions can result from both direct and indirect sources. Gasoline and diesel on-road vehicles emit both direct PM<sub>2.5</sub> and other gases that react in the air to form PM<sub>2.5</sub>. Direct PM<sub>2.5</sub> emissions can result from particles in exhaust fumes, from brake and tire wear, from road dust kicked up by vehicles, and from highway and transit construction. Indirect PM<sub>2.5</sub> emissions can result from one or more of several exhaust components, including nitrogen oxides (NOx), volatile organic compounds (VOCs), sulfur oxides (SOx), and ammonia (NH<sub>3</sub>).

For the regional analysis of direct PM<sub>2.5</sub> emissions, EPA has ruled that both exhaust and brake/tire wear must be included. However, EPA has also ruled that emissions analysis for direct PM<sub>2.5</sub> should include road dust only if road dust is found to be a significant contributor to PM<sub>2.5</sub> by either the EPA Regional Administrator or a state air quality agency. For the Connecticut PM<sub>2.5</sub> non-attainment area, neither the EPA Regional Administrators nor the state air quality agency have found that road dust is a significant PM<sub>2.5</sub> contributor.

For the regional analysis of indirect PM<sub>2.5</sub> emissions (also called PM<sub>2.5</sub> precursors), EPA has identified four potential transportation-related PM<sub>2.5</sub> precursors: NOx, VOCs, SOx, and NH<sub>3</sub>. The only indirect PM<sub>2.5</sub> component that needs to be considered in the Connecticut PM<sub>2.5</sub> non-attainment area is NOx.

## **8) ANNUAL INVENTORIES FOR PM<sub>2.5</sub>**

Because the multi-state PM<sub>2.5</sub> non-attainment area did not meet the annual PM<sub>2.5</sub> NAAQS, the emissions analysis for PM<sub>2.5</sub> considered annual emissions. Guidance from EPA (dated November, 2015) presented two possible options for developing an annual inventory before a SIP is developed: using a typical seasonal day or an annual inventory that is based on monthly estimates. The twelve-month approach for the Connecticut PM<sub>2.5</sub> non-attainment area was utilized.

## **9) VEHICLE MILES OF TRAVEL AND EMISSIONS ANALYSIS**

Vehicle Miles of Travel (VMT) estimates were developed from the Connecticut Department of Transportation's (CDOT's) statewide network-based travel model supplemented by off-model analysis. The 2015 travel model network, to the extent practical, represents all state highways and major connecting non-state streets and roads as well as the rail, local bus and express bus systems that currently exist. Future highway networks for 2018, 2020, 2025 and 2030 and transit networks for 2016, 2020, 2030 and 2040 were built by adding STIP, TIP and LRTP projects (programmed for opening after 2015) to the 2015 network. These networks were used to run travel models and conduct emissions analysis for the years 2018, 2025, 2035 and 2040. Table 2 lists the projects for each model analysis year for which network changes were required.

**TABLE 2 LIST OF NETWORK CHANGES**

**2018 NETWORK CHANGES**

NEW MPO	DESCRIPTION	LANES
PROJECT NUMBER		FROM      TO
HIGHWAY NAME		
TOWN		
IMPROVEMENT		
 <b>CAPITAL REGION</b>		
0131-0190	Remove Bridge Number 00518	1/1      0/0
ROUTE 10	Reconstruct 10/322 Intersection	
SOUTHINGTON	CCD 11/2017, TIP	
BRIDGE REMOVAL		
 <b>GREATER BRIDGEPORT</b>		
0015-TMP1	Realignment of Lafayette Circle and establishment of bidirectional traffic on Fairfield Avenue	0/1      1/1
LAFAYETTE CIRCLE		
BRIDGEPORT	CCD 2017, TIP	
REALIGNMENT		
 0036-0184	Main Street Derby from Bridge Street to Route 8	1/1      2/2
ROUTE 34	South Exit15 On/Off Ramps (Ausonio Street)	
DERBY	CCD 2018, TIP	
WIDENING		
 <b>HOUSATONIC VALLEY</b>		
0034-0347	State Route 806 (Newtown Road) from Old	1/1      2/2
SR 806	Newtown to Plumtrees & from Eagle to Industrial	
NEWTOWN ROAD	Plaza, Danbury - Widening from 1 lane each direction	
DANBURY	to 2 lanes each direction	
	CCD 2016, TIP	
 <b>SOUTH CENTRAL</b>		
0079-XXXX	Multiple lane and directional changes in the center	VARIOUS
WEST MAIN STREET	of town. Conversion of multiple one way streets to	
MERIDEN	two ways. Conversion of a two way street to one	
DIRECTIONAL AND	way. Reduction of one lane in each direction for one	
LANE CHANGES	street	
	CCD 2018, TIP	

**TABLE 2 LIST OF NETWORK CHANGES (CONT'D)****2018 NETWORK CHANGES**

NEW MPO	DESCRIPTION	LANES	
PROJECT NUMBER		FROM	TO
HIGHWAY NAME			
TOWN			
IMPROVEMENT			
 <b>SOUTH CENTRAL (CONT'D)</b>			
0092-0531	Q Bridge Replacement and demolition; Contract E CCD 2016, TIP	3/3	5/5
I-95			
NEW HAVEN			
BRIDGE			
REPLACEMENT			
 0092-0532	Q Bridge Replacement and demolition; Contract B CCD 2016, TIP	3/3	5/5
I-95			
NEW HAVEN			
BRIDGE			
REPLACEMENT			
 0092-0627	Q Bridge Replacement and demolition; Contract B2 CCD 2016, TIP	3/3	5/5
I-95			
NEW HAVEN			
BRIDGE			
REPLACEMENT			
 0092-XXXX	Removal of North Frontage Road between State	1/1	0/0
NORTH FRONTAGE ROAD	Street & Orange Street		
NEW HAVEN			
ROADWAY			
REMOVAL			
 0100-0175	Project to widen Sackett Point Road from 1 lane to 2	1/1	2/2
SACKETT POINT	lanes CCD 2018, TIP		
ROAD			
NORTH HAVEN			
WIDENING			

**TABLE 2 LIST OF NETWORK CHANGES (CONT'D)****2018 NETWORK CHANGES**

NEW MPO	DESCRIPTION	LANES	
PROJECT NUMBER		FROM	TO
<b>HIGHWAY NAME</b>			
<b>TOWN</b>			
<b>IMPROVEMENT</b>			
 <b>SOUTH WESTERN</b>			
0102-0325	Addition of a through lane on Route 1 Northbound from France Street to Route 53	1/1	1/2
ROUTE 1			
NORWALK	CCD 2018, TIP		
WIDENING			
 0135-0301	Reconstruction of I-95 off ramps and Atlantic Street in vicinity of Metro North Railroad Bridge No.	2/2	3/3
ATLANTIC STREET			
STAMFORD	08012R		
WIDENING	CCD 2018, TIP		
 <b>GREATER BRIDGEPORT</b>			
0138-0211	Addition of a through lane on Route 1 Southbound from Nobel Street to Soundview Avenue	1/2	2/2
ROUTE 1			
STRATFORD	CCD 2018, TIP		
WIDENING			
 <b>CENTRAL NAUGATUCK VALLEY</b>			
0017-0182	Addition of a second through lane on Route 6 Eastbound from Carol Drive (Mix Street/Brook Street) to Peggy Lane (Camp Street)	1/1	2/1
ROUTE 6			
BRISTOL			
WIDENING	CCD 2018, TIP		

**TABLE 2 LIST OF NETWORK CHANGES (CONT'D)**

**2020 NETWORK CHANGES**

NEW MPO	DESCRIPTION	LANES	
PROJECT NUMBER		FROM	TO
HIGHWAY NAME			
TOWN			
IMPROVEMENT			
<b>CAPITAL REGION</b>			
0051-0259	Interchange improvements at Routes 4, 6, and 9 including a new EB C/D Roadway	N/A	
I84/RT4/RT6			
FARMINGTON	BID 12-31-08, CCD 2019, TIP		
INTERCHANGE			
BSWY			
0063-0703	Relocation and Reconfiguration of Interchange 29 on I-91; New additional lanes Rte. 15 NB from 2 to 3 lanes exit 90 to 0.5 miles beyond Exit 91	3/3	4/3
I-91, EXIT 29			
HARTFORD			
WIDENING	CCD 2020 Long Range Plan		
0155-0156	Add an Operational Lane WB between Interchanges 42 & 39A; Add an Operational Lane EB between Interchanges 40 & 41	3/3	4/4
I-84			
WEST HARTFORD			
OPERATIONAL LANES	CCD 2018		
<b>CENTRAL NAUGATUCK VALLEY</b>			
0151-0273	Interstate 84	2/2	3/3
I-84	CCD 11/2020, TIP		
WATERBURY			
WIDENING			
0151-XXXX	TIGER Grant includes various roadway changes including reconstruction/extension of Jackson Street. Extension will meet at Freight Street and continue to West Main	N/A	1/1
DOWNTOWN AREA			
WATERBURY			
ADDED ROADWAY	CCD 2019, Long Range Plan		

**TABLE 2 LIST OF NETWORK CHANGES (CONT'D)**

**2020 NETWORK CHANGES**

NEW MPO	DESCRIPTION	LANES	
PROJECT NUMBER		FROM	TO
HIGHWAY NAME			
TOWN			
IMPROVEMENT			
<b>GREATER BRIDGEPORT</b>			
0015-HXXX	Reconstruct and widen Route 130 from Stratford Avenue bridge to Yellow Mill bridge	1/1	2/2
ROUTE 130			
BRIDGEPORT	Long Range Plan		
WIDENING			
0124-0165	**As of 2/15/2011 current scope from consultant is spot improvements for from Swan Avenue to Franklin Street	1/1	2/2
ROUTE 67			
SEYMOUR	Project Manager** Bank Street from West Street to North Main St is full scope being reviewed by consultant		
MAJOR WIDENING	Long Range Plan		
0124-XXXX	Between Interchange 22 and 23 to improve access	N/A	
ROUTE 8	Long Range Plan		
SEYMOUR			
INTERCHANGE			
0124-XXXX	Realign interchange with new extension of Derby Road	N/A	
ROUTE 8			
SEYMOUR	Long Range Plan		
INTERCHANGE			
0126-XXXX	Interchange 11- Construct new SB entrance ramp, Widen Bridgeport Avenue	N/A	
ROUTE 8			
SHELTON	Long Range Plan		
MAJOR WIDENING			

**TABLE 2 LIST OF NETWORK CHANGES (CONT'D)**

**2020 NETWORK CHANGES**

NEW MPO	DESCRIPTION	LANES	
PROJECT NUMBER		FROM	TO
HIGHWAY NAME			
TOWN			
IMPROVEMENT			
 <b>GREATER BRIDGEPORT (CONT'D)</b>			
0126-XXXX	Between Huntington Avenue and Constitution Boulevard	1/1	2/2
ROUTE 714			
SHELTON	Long Range Plan		
MAJOR WIDENING			
NEW MPO			
 0138-0248	Reconstruct Interchange 33 on I-95 to provide full interchange from partial to full diamond interchange	N/A	
I-95, EXIT 33			
STRATFORD			
INTERCHANGE	CCD 2020, Long Range Plan		
RECONSTRUCTION			
 <b>HOUSATONIC VALLEY</b>			
0008-XXXX	Operational Improvements on White Street at Locust Avenue and Eighth Avenue	1/1	1/2
WHITE STREET			
DANBURY	CCD 2020, Long Range Plan		
WIDENING			
 0096-0204	Addition of a through lane on Route 34 EB from Wasserman Way to Toddy Hill Road. Addition of I-84 WB and EB on-ramp from Route 34 WB	1/1	2/1
ROUTE 34			
NEWTOWN			
WIDENING	CCD 2020, TIP		
 <b>SOUTH CENTRAL</b>			
0092-XXXX	Intersection Improvements at Route 69 and Pond Lily Avenue	N/A	
ROUTE 69			
NEW HAVEN	Long Range Plan		
INTERSECTION			
IMPROVEMENTS			

**TABLE 2 LIST OF NETWORK CHANGES (CONT'D)**

**2025 NETWORK CHANGES**

NEW MPO	DESCRIPTION	LANES	
PROJECT NUMBER		FROM	TO
HIGHWAY NAME			
TOWN			
IMPROVEMENT			
<b>CAPITAL REGION</b>			
0042-0317 ROUTE 2 EAST HARTFORD WIDENING	Removal of the Cambridge Street to Route 2 Westbound On-Ramp and the Sutton Avenue to Route 2 Eastbound Off-Ramp. New through lane on Main Street Northbound underneath Route 2 at the approach to the Route 2 Westbound Off-Ramp CCD 2021, TIP	0/1	0/2
0055-0142 ROUTE 10 & 202 GRANBY WIDENING	Addition of a second through lane on Route 20/189 Westbound from Route 10/202 to Route 20 and Route 189 split. Addition of a second through lane on Route 20 Westbound from Hungary Road to Route 10/202. Addition of a second through lane on Route 10/202 Northbound from Route 189 to Route 20/189. CCD 2022, TIP	VARIOUS	
<b>LOWER CT RIVER VALLEY</b>			
0082-0316 ROUTE 17 MIDDLETOWN INTERCHANGE RECONFIGURATION	Reconfiguration and realignment of Route 17 On-Ramp onto Route 9 from Main Street. Removal of the Harbor Drive to Route 9 Northbound On-Ramp CCD 2025, TIP	N/A	
0082-0318 ROUTE 9 MIDDLETOWN REMOVE LANE	Removal of a through lane on Route 9 Southbound from just North of Miller Street to just South of Washington Street. Route 9 access to Washington Street/DeKoven Drive has been limited to an on-ramp to Route 9 Southbound. CCD 2021, TIP	N/A	

**TABLE 2 LIST OF NETWORK CHANGES (CONT'D)****2025 NETWORK CHANGES**

NEW MPO	DESCRIPTION	LANES
PROJECT NUMBER		FROM      TO
HIGHWAY NAME		
TOWN		
IMPROVEMENT		
 <b>SOUTHEASTERN</b>		
0120-0079	Addition of a second through lane on Route 85	1/1      2/1
ROUTE 85	Northbound from just North of Chesterfield Road to just South of Deer Run.	
MONTVILLE	CCD 2024, TIP	
WIDENING		
 <b>SOUTH WESTERN</b>		
0102-0358	Reconfiguration of the interchanges between Route 7, Route 15, and Main Avenue. These changes include multiple new and reconfigured on and off ramps designed to allow access to and from all three major roadways	N/A
ROUTE 7 AND ROUTE 15	CCD 2025, TIP	
NORWALK		
INTERCHANGE		
RECONFIGURATION		

**TABLE 2 LIST OF NETWORK CHANGES (CONT'D)**

**2028 NETWORK CHANGES**

<b>NEW MPO</b>	<b>DESCRIPTION</b>	<b>LANES</b>
<b>PROJECT NUMBER</b>		<b>FROM</b> <b>TO</b>
<b>HIGHWAY NAME</b>		
<b>TOWN</b>		
<b>IMPROVEMENT</b>		
 <b>SOUTHEASTERN</b>		
ROUTE 82	Removal of a through lane on Route 82 Eastbound	N/A
NORWICH	from just West of Pine Street to just West of	
REMOVE LANE	Fairmont Street	
	CCD 2027, TIP	

**TABLE 2 LIST OF NETWORK CHANGES (CONT'D)**

**2030 NETWORK CHANGES**

NEW MPO	DESCRIPTION	LANES	
PROJECT NUMBER		FROM	TO
HIGHWAY NAME			
TOWN			
IMPROVEMENT			
 <b>CAPITAL REGION</b>			
VARIOUS TOWNS	New Haven/Hartford/Springfield Rail Service	N/A	
NEW COMMUTER RAIL	Governor's Transportation Initiative Long Range Plan		
 0109-XXXX	New Britain Avenue Cooke Street to Hooker Street	1/1	2/2
PLAINVILLE	Long Range Plan		
ADD LANE			
 <b>CENTRAL NAUGATUCK VALLEY</b>			
0080-0128	Add auxiliary lanes at Int. 17 and on Routes 63/64	1/1	2/2
I-84, Routes 63-64	Long Range Plan		
MIDDLEBURY/WATERBURY			
WIDENING			
 <b>GREATER BRIDGEPORT</b>			
0036-0179	Interchange 18 - Construct New NB entrance ramp.	N/A	
ROUTE 8	Long Range Plan		
ANSONIA			
INTERCHANGE			

**TABLE 2 LIST OF NETWORK CHANGES (CONT'D)**

**2030 NETWORK CHANGES**

NEW MPO	DESCRIPTION	LANES
PROJECT NUMBER		FROM      TO
HIGHWAY NAME		
TOWN		
IMPROVEMENT		
 <b>GREATER BRIDGEPORT (CONT'D)</b>		
0036-XXXX	Route 8 Interchange 16 and 17; Construct new NB ramps. Close old ramps	N/A
ROUTE 8		
DERBY	Long Range Plan	
INTERCHANGE		
 0126-XXXX	Interchange 14 - Construct new SB entrance ramp	N/A
ROUTE 8		
SHELTON	Long Range Plan	
INTERCHANGE		
 <b>HOOSATONIC VALLEY</b>		
0018-0124	South of Old State Road to Route 133	1/1      2/2
US 202	Long Range Plan	
BROOKFIELD		
WIDENING		
 0034-0288	From Kenosia Avenue easterly to I-84 (Exit 4)	1/1      2/2
ROUTE 6	Long Range Plan	
DANBURY		
ADD LANES		
 0034-XXXX	From I-84 (Exit 2) East to Kenosia Avenue	1/1      2/2
ROUTE 6	Long Range Plan	
DANBURY		
ADD LANES		
 0034-XXXX	From Route I-84 (Exit 6) Northerly to Jeanette Street	1/1      2/2
ROUTE 37		
DANBURY	Long Range Plan	
ADD LANES		

**TABLE 2 LIST OF NETWORK CHANGES (CONT'D)**

**2030 NETWORK CHANGES**

NEW MPO	DESCRIPTION	LANES	
PROJECT NUMBER		FROM	TO
HIGHWAY NAME			
TOWN			
IMPROVEMENT			
 <b>HOUSATONIC VALLEY (CONT'D)</b>			
0034-XXXX	Between Interchanges 3 and 4.Between	3/3	4/4
I-84	Interchanges 12 and 13		
DANBURY, NEWTOWN, SOUTHBURY	Long Range Plan		
ADD LANES			
0034-XXXX	Widen Kenosia Avenue from Backus Avenue to	1/1	2/2
DANBURY	Vicinity of Lake Kenosia		
ADD LANES	Long Range Plan		
0034-XXXX	Widen Backus Avenue from Kenosia Avenue to Miry	1/1	2/2
DANBURY	Brook Road		
ADD LANES	Long Range Plan		
0034-XXXX	From South Street northerly to Boughton Street;	1/1	2/2
ROUTE 53	Long Range Plan		
DANBURY			
ADD LANES			
0034-XXXX	From Route 53 (Main Street) northerly to I-84	1/1	2/2
ROUTE 37	(Exit 6)		
DANBURY	Long Range Plan		
ADD LANES			
0096-XXXX	New Road across Old Fairfield Hills Hospital Campus,	0/0	1/1
NEWTOWN	From Route 6 South to Route 860		
NEW ROAD	Long Range Plan		
ADD LANES			

**TABLE 2 LIST OF NETWORK CHANGES (CONT'D)****2030 NETWORK CHANGES**

NEW MPO	DESCRIPTION	LANES	
PROJECT NUMBER		FROM	TO
HIGHWAY NAME			
TOWN			
IMPROVEMENT			
<b>SOUTH CENTRAL</b>			
0014-XXXX	East Haven Town Line to Alps Road (Echlin Road Private)	2/2	2/3
ROUTE 1			
BRANFORD	Long Range Plan		
WIDENING			
0014-XXXX	Route 146 to Cedar Street	2/2	2/3
ROUTE 1	Long Range Plan		
BRANFORD			
WIDENING			
0014-XXXX	Cedar Street to East Main	1/1	1/2
ROUTE 1	Long Range Plan		
BRANFORD			
WIDENING			
0014-XXXX	East Main to I-95 Exit 55	1/1	1/2
ROUTE 1	Long Range Plan		
BRANFORD			
WIDENING			
0014-XXXX	I-95 Exit 55 to Leetes Island Road	1/1	1/2
ROUTE 1	Long Range Plan		
BRANFORD			
WIDENING			
0059-XXXX	Bullard Road extension to Route 77	0/0	1/1
BULLARD RD	Long Range Plan		
GUILFORD			
WIDENING			

**2030 NETWORK CHANGES**

NEW MPO	DESCRIPTION	LANES	
PROJECT NUMBER		FROM	TO
HIGHWAY NAME			
TOWN			
IMPROVEMENT			
 <b>SOUTH CENTRAL</b> <b>(CONT'D)</b>			
0059-XXXX	State Street to Tanner Marsh Road	1/1	1/2
ROUTE 1	Long Range Plan		
GUILFORD			
WIDENING			
 0061-XXXX	Washington Avenue to Route 40	2/2	2/3
ROUTE 10	Long Range Plan		
HAMDEN			
WIDENING			
 0061-XXXX	Route 40 to Todd Street	2/2	2/3
ROUTE 10	Long Range Plan		
HAMDEN			
WIDENING			
 0061-XXXX	Todd Street to Shepard Avenue	1/1	2/2
ROUTE 10	Long Range Plan		
HAMDEN			
WIDENING			
 0061-XXXX	River Street to Cheshire Town Line	1/1	2/2
ROUTE 10	Long Range Plan		
HAMDEN			
WIDENING			
 0061-XXXX	Olds Street (Hamden) to Sackett Point Road	1/1	2/2
ROUTE 5	Long Range Plan		
HAMDEN, NORTH HAVEN			
WIDENING			

**TABLE 2 LIST OF NETWORK CHANGES (CONT'D)**

**2030 NETWORK CHANGES**

NEW MPO	DESCRIPTION	LANES
PROJECT NUMBER		FROM      TO
HIGHWAY NAME		
TOWN		
IMPROVEMENT		
 <b>SOUTH CENTRAL (CONT'D)</b>		
0073-XXXX	New Rail Station near Salemme Lane in Orange	N/A
ORANGE	CCD 2030 Long Range Plan	
NEW RAIL STATION		
 0079-XXXX	Wallingford Town Line to Olive Street (Route 71)	1/1      2/2
ROUTE 5	Long Range Plan	
MERIDEN		
WIDENING		
 0083-XXXX	From West of Old Gate Lane to Gulf Street/Clark	1/1      2/2
ROUTE 162	Street to Route 1	
MILFORD	Long Range Plan	
WIDENING		
 0092-0649	Long Wharf access Plan Widen I-95 (in separate	VARIABLES
NEW HAVEN	project), Eliminate Long Wharf Drive to expand park,	
	add new road from Long Wharf Drive	
	Long Range Plan	
 0092-XXXX	From Route 63 to Landin Street	1/1      2/2
ROUTE 69	Long Range Plan	
NEW HAVEN, WOODBRIDGE		
WIDENING		
 0092-XXXX	From Dayton Street (NH) to Landin Street (Wdbg)	1/2      2/3
ROUTE 63	Long Range Plan	
NEW HAVEN, WOODBRIDGE		
WIDENING		

**TABLE 2 LIST OF NETWORK CHANGES (CONT'D)**

**2030 NETWORK CHANGES**

NEW MPO	DESCRIPTION	LANES	FROM	TO
PROJECT NUMBER				
HIGHWAY NAME				
TOWN				
IMPROVEMENT				
<b>SOUTH CENTRAL (CONT'D)</b>				
0098-XXXX	From East Haven Town Line to Doral Farms Road and Route 22 to Guilford Town Line	1/1		1/2
ROUTE 80	Long Range Plan			
NORTH BRANFORD				
WIDENING				
0106-XXXX	From West Haven Town Line to US 1	1/1		2/2
ROUTE 162	Long Range Plan			
ORANGE				
WIDENING				
0148-XXXX	From South Orchard Street. to Ward Street and Christian Road to Meriden Town Line	1/1		2/2
ROUTE 5	Long Range Plan			
WALLINGFORD				
ROUTE 5				
0148-XXXX	From Route 71 overpass South of Old Colony Road to Route 68	1/1		1/2
ROUTE 150	Long Range Plan			
WALLINGFORD				
ROUTE 5				
0156-XXXX	Route 1 to Elm Street	1/1		2/2
ROUTE 122	Long Range Plan			
WEST HAVEN				
WIDENING				
0156-XXXX	Campbell Avenue to Orange Town Line	1/1		2/2
ROUTE 1	Long Range Plan			
WEST HAVEN				
WIDENING				

**TABLE 2 LIST OF NETWORK CHANGES (CONT'D)**

**2030 NETWORK CHANGES**

NEW MPO	DESCRIPTION	LANES	
PROJECT NUMBER		FROM	TO
HIGHWAY NAME			
TOWN			
IMPROVEMENT			
 <b>SOUTH CENTRAL (CONT'D)</b>			
0156-XXXX	Elm Street to Greta Street	2/2	2/3
ROUTE 162	Long Range Plan		
WEST HAVEN			
WIDENING			
 0156-XXXX	Bull Hill Ln to Orange Town Line	1/1	2/2
ROUTE 162	Long Range Plan		
WEST HAVEN			
WIDENING			
 VARIOUS TOWNS	New Haven/Hartford/Springfield Rail Service	N/A	
NEW COMMUTER RAIL	Governor's Transportation Initiative Long Range Plan		
 <b>SOUTH WESTERN</b>			
0035-XXXX	Add Lane from Stamford Exit 8 to Darien Exit 10,	3/3	4/4
I-95	Operational Lane		
Darien-Stamford	Long Range Plan		
WIDENING			
 0102-0269	Upgrade to full interchange at Merritt Parkway	N/A	
US 7/RT 15	(Route 15) BID 01-09-08		
NORWALK	CCD 2030, Long Range Plan		
UPGRADE			
EXPRESSWAY			
 0102-0297	East Avenue from the vicinity of the I-95 Ramps	1/1	2/2
EAST AVE #1	southerly to the vicinity of Van Zant Street		
NORWALK	Long Range Plan		
WIDENING			

**TABLE 2 LIST OF NETWORK CHANGES (CONT'D)****2030 NETWORK CHANGES**

NEW MPO	DESCRIPTION	LANES
PROJECT NUMBER		FROM      TO
HIGHWAY NAME		
TOWN		
IMPROVEMENT		
 <b>SOUTH WESTERN (CONT'D)</b>		
0102-0312	Reconstruction of Interchange 40 Merritt Parkway and Route 7 (Main Avenue). Breakout of 0102-0269	N/A
ROUTE 7/15	Phase 1	
NORWALK	CCD 2030, Long Range Plan	
UPGRADE EXPRESSWAY		
 0102-XXXX	Express Bus/BRT between Norwalk and Greenwich	N/A
NORWALK-GREENWICH BRT	Long Range Plan	

**TABLE 2 LIST OF NETWORK CHANGES (CONT'D)**

**2040 NETWORK CHANGES**

NEW MPO	DESCRIPTION	LANES
PROJECT NUMBER		FROM      TO
HIGHWAY NAME		
TOWN		
IMPROVEMENT		
 <b>GREATER BRIDGEPORT</b>		
0015-XXXX	New Rail Station near Barnum Street in	N/A
NEW RAIL STATION	Bridgeport	
	CCD 2040 Long Range Plan	

The PM 2.5 input file into MOVES2014a for each analysis year consisted of “annual average” scenario. All months were selected for an “annual average” evaluation. Appropriate minimum/maximum temperatures were employed, as well as annual average FUEL RVP, SPEED VMT, and DIESEL SULFUR values. Annual emission factors were obtained for each county by roadway classification.

In addition, model runs incorporate the effect of the Employer Commute Options (ECO) Program in Southwest Connecticut (Fairfield County). In response to federal legislation, Connecticut has restructured the ECO program to emphasize voluntary participation, combined with positive incentives, to encourage employees to rideshare, use transit and continue to expand their trip reduction activities. In addition, the program has been made available to all employers. It is felt that this process is an effective means of achieving Connecticut's clean air targets. Funding of this effort under the Congestion Mitigation and Air Quality Improvement (CMAQ) program is included in the TIP for FY 2018-2021. It is estimated that this program, if fully successful, could reduce VMT and mobile source emissions by 2% in Southwest Connecticut.

It should be noted that TIP and LRTP projects, which have negligible impact on trip distribution and/or highway capacity, have not been incorporated into the network. These include, but are not limited to, geometric improvements of existing interchanges, short sections of climbing lanes, intersection improvements, transit projects dealing with equipment for existing facilities and vehicles, and transit operating assistance. Essentially, those projects that do not impact the travel demand forecasts are not included in the network and/or analysis.

The network-based travel model used for this analysis is the model that CTDOT utilizes for transportation planning, programming and design requirements. This travel demand model uses demographic and land use assumptions based on the 2010 Census population and Connecticut Department of Labor 2010 employment estimates. Population and employment projections for the years 2020, 2030 and 2040 were developed by the Connecticut Department of Transportation, Travel Demand and Air Quality Modeling Unit and approved by all the regional planning agencies in early 2012.

The model uses a constrained equilibrium approach to allocate trips among links. The model was calibrated using 2013 ground counts and 2013 HPMS VMT data.

Peak hour directional traffic volumes were estimated as a percentage of the Average Daily Traffic (ADT) on a link-by-link basis. Based on automatic traffic recorder data, 9.0 percent, 8.5 percent, 8.0 percent and 7.5 percent of the ADT occurs during the four highest hours of the day. A 55:45 directional split was assumed. Hourly volumes were then converted to Service Flow Levels (SFL) and Volume to Capacity (V/C) ratios calculated as follows:

$$\begin{aligned} SFL &= DHV/PHF*N\ VC \\ &= SFL / C \end{aligned}$$

where: DHV = Directional Hourly Volume  
 PHF = Peak Hour Factor = 0.9  
 N = Number of lanes  
 C = Capacity of lane

Peak period speeds were estimated from the 2000 Highway Capacity Manual based on the design speed, facility class, area type and calculated V/C ratio. On the expressway system, Connecticut-based free flow speed data was available. This data was deemed more appropriate and superseded the capacity manual speed values. The expressway free flow speeds were updated in 2005.

For the off - peak hours, traffic volume is not the controlling factor for vehicle speed. Off-peak link speeds were based on the Highway Capacity Manual free flow speeds as a function of facility class and area type. As before, Connecticut-based speed data was substituted for expressway travel, where available, and was also updated in 2005.

Two special cases exist in the travel demand modeling process. These are centroid connectors and intrazonal trips.

- Centroid connectors represent the local roads used to gain access to the model network from centers of activity in each traffic analysis zone (TAZ). A speed of 25 mph is utilized for these links.
- Intrazonal trips are trips that are too short to get on to the model network. VMT for intrazonal trips is calculated based on the size of each individual TAZ. A speed of 20 to 24 mph is utilized for peak period and 25 to 29 mph for off - peak.

The Daily Vehicle Miles of Travel (DVMT) is calculated using a methodology based on disaggregate speed and summarized by inventory area, functional classification, and speed. The annual VMT and speed profiles developed by this process are then combined with the emission factors from the MOVES2014a model to produce emission estimates for each scenario and time frame. MOVES2014a PM 2.5 and NOx annual emissions by County may be found in Appendix B. The MOVES2014a input files are in Appendix C. Appendix D lists various acronyms used in the report.

In all cases the transportation program and plan meets the required conformity tests:

- For years 2017 to 2024, Direct PM 2.5 in the Connecticut portion of the New York-Northern New Jersey-Long Island attainment/maintenance area must be less than 575.8 tons per year.

- For years 2017 to 2024, NOx in the Connecticut portion of the New York-Northern New Jersey-Long Island attainment/maintenance area must be less than 12,791.8 tons per year.
- For year 2025 and subsequent years, Direct PM 2.5 in the Connecticut portion of the New York-Northern New Jersey-Long Island attainment/maintenance area must be less than 516.0 tons per year.
- In year 2025 and subsequent years, NOx in the Connecticut portion of the New York-Northern New Jersey-Long Island attainment/maintenance area must be less than 9,728.1 tons per year.

This analysis in no way reflects the full benefit on air quality from the transportation plan and program. The network-based modeling process is capable of assessing the impact of major new highway or transit service. It does not reflect the impact from the many projects, which are categorically excluded from the requirement of conformity. These projects include numerous improvements to intersections, which will allow traffic to flow more efficiently, thus reducing delay, fuel usage and emissions. Included in the TIP, but not reflected in this analysis, are many projects to maintain existing rail and bus systems. Without these projects, those systems could not offer the high level of service they do. With them, the mass transit systems function more efficiently, improve safety, and provide a more dependable and aesthetically appealing service. These advantages will retain existing patrons and attract additional riders to the system. The technology to quantify the air quality benefits from these programs is not currently available.

As shown in this analysis, transportation emissions are declining dramatically and will continue to do so. This is primarily due to programs such as reformulated fuels, enhanced inspection and maintenance programs, stage two vapor recovery (area source), the low emissions vehicles (LEV) program, and the Tier 2 / Sulfur-in-Gas reduction program.

MOVES2014a includes three new emission control programs associated with regulation promulgated since the release of MOVES2010b:

- Tier 3 emission standards that phase in beginning in 2017 for cars, light-duty trucks, medium-duty passenger vehicles, and some heavy-duty trucks, and Tier 3 fuel standards that require lower sulfur gasoline beginning in 2017.
- Heavy-duty engine and vehicle greenhouse gas (GHG) regulations that phase in during model years 2014-2018.
- The second phase of light-duty vehicle GHG regulations that phase in for model

years 2017-2025 cars and light trucks.

MOVES2014a estimates exhaust and evaporative emissions as well as brake and tire wear emissions from all types of on-road vehicles. MOVES2014a also uses a vehicle classification system based on the way vehicles are classified in the FHWA's Highway Performance Monitoring System (HPMS). Other parameters include vehicle miles traveled (VMT) by vehicle and road type, vehicle hours traveled (VHT) by vehicle and road type, the number of each type of vehicle in the fleet, vehicle age distribution, model year, travel speed, roadway type, fuel information, meteorological data, such as ambient temperature and humidity, and applicable control measures such as reformulated gasoline (RFG) and inspection and maintenance (I/M). Local inputs were cooperatively developed by CTDEEP and CTDOT, where applicable, using EPA Recommended methods.<sup>3</sup>

Changes in the transportation system will not produce significant emissions reductions because of the massive existing rail, bus, highway systems, and land development already in place. Change in these aspects is always at the margin, producing very small impacts.

## **10) ANALYSIS RESULTS**

As part of the redesignation request, the State submitted a maintenance plan as required by section 175A of the Clean Air Act. Elements of the section 175A maintenance plan include a contingency plan and an obligation to submit a subsequent maintenance plan revision as required by the Clean Air Act. The PM<sub>2.5</sub> maintenance plan also establishes 2017 and 2025 MVEBs for the Area. Connecticut is establishing 2017 MVEBs of 575.8 tons per year (tpy) for direct PM<sub>2.5</sub> and 12,791.8 tpy for NO<sub>x</sub>, and 2025 MVEBs of 516 tpy for direct PM<sub>2.5</sub> and 9,728.1tpy for NO<sub>x</sub>, for the Southwestern CT Area for maintenance of the 1997 annual and 2006 24-hour PM<sub>2.5</sub> standards. The emissions analysis results for the Connecticut portion of the New York-Northern New Jersey-Long Island multi-state attainment/maintenance area are presented in Table 3 on the next page.

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<sup>3</sup> "MOVES2014 and MOVES2014a Technical Guidance: Using MOVES to Prepare Emission Inventories for State Implementation Plans and Transportation Conformity", EPA-420-B-15-093. November 2015

**Table 3: Direct PM<sub>2.5</sub> and NOx Emission Budget Test Results (tons per year)**

Year	Series 31C		Budgets		Difference	
	Direct PM 2.5	NOx	Direct PM 2.5	NOx	Direct PM 2.5	NOx
2018	284.1	7,192.7	575.8	12,791.8	-291.7	-5,599.1
2025	202.3	4,361.8	516.0	9,728.1	-313.7	-5,366.3
2035	154.4	2,726.3	516.0	9,728.1	-361.6	-7,001.8
2040	144.6	2,572.0	516.0	9,728.1	-371.4	-7,156.1

## 11) CONCLUSION

This emissions analysis transportation conformity has been demonstrated for the Connecticut portion of the NY-NJ-CT PM<sub>2.5</sub> Attainment/Maintenance Area based upon the direct PM<sub>2.5</sub> and the NOx emission budgets for 2017 and 2025 effective as of February 20, 2013. The region has attained National Ambient Air Quality Standards and EPA published its approval of the PM<sub>2.5</sub> redesignation request, establishing October 24, 2013 as the effective date of redesignation to attainment for Connecticut's portion of the NY-NJ-CT Area for both the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS.

Please direct any questions you may have on the air quality emission analysis to:

Connecticut Department of Transportation  
 Bureau of Policy and Planning  
 Division of Coordination, Modeling and Crash Data – Unit 57531  
 2800 Berlin Turnpike  
 Newington, CT. 06111  
 (860) 594-2032  
 Email: [Judy.Raymond@ct.gov](mailto:Judy.Raymond@ct.gov)

**APPENDIX A**  
**Interagency Consultation Meeting Minutes**

**INTERAGENCY CONSULTATION MEETING**  
**Statewide Transportation Improvement**  
**Program**  
**Connecticut Department of Transportation**  
**Room 2307 – February 7, 2017**  
**Go To Meeting**

**Attendees:**

Eloise Powell – FHWA  
Ken Shooshan-Stoller, FHWA  
Leah Sirmin – FTA  
Ariel Garcia - EPA  
Jennifer Carrier - CRCOG  
Cara Radzins – CRCOG  
Rob Aloise - CRCOG  
Mark Nielson – CNVMPO  
Christian Meyer – CNVMPO  
Ben Muller - CNVMPO  
Meghan Sloan – CT Metro COG  
Robert Haramut – LCRVCOG  
Stephen Dudley –SCRCOG  
Chris Rappa - SCRCOG  
Richard Guggenheim – SECCOG  
Kate Rattan - SECCOG  
Rob Sachnin – Western COG  
Maribeth Wojenski – CTDOT  
Judy Raymond - CTDOT  
Robbin Cabelus - CTDOT  
Roxane Fromson - CTDOT  
Grayson Wright – CTDOT  
Sara Radacsi – CTDOT  
Matthew Cegielski- CTDOT  
Ryan Dolan – CTDOT  
Greg Pacelli – CTDOT  
Kara Chandler - CTDOT

The Interagency Consultation Meeting was held to review projects submitted for the 2018-2021 STIP.

Both the Ozone and PM 2.5 reports will be electronically distributed to the MPOs in the appropriate Nonattainment/Maintenance areas, FTA, FHWA, DEEP and EPA. The MPOs will need to hold a 30 day public comment and review period. At the end of this review period, the MPO will hold a Policy Board meeting to endorse the Air Quality Conformity determination.

There was also a brief discussion on the travel model and emissions software planning assumptions employed in the conformity analysis.

The schedule for the 2018-2021 Regional Transportation Improvement Plans Conformity Determination Analysis is as follow:

- MPOs transmit signed and dated Concurrence Form to [judy.raymond@ct.gov](mailto:judy.raymond@ct.gov) by February 10, 2017.
- CTDOT Travel Demand Model Unit performs the air quality analysis and sends the Air Quality Conformity Determination Reports electronically to all MPOs in early summer 2017
- MPOs advertise and hold a 30-day public review and comment period for the Air Quality Conformity.
- MPOs hold a Policy Board meeting approving and endorsing the Air Quality Conformity and transmit resolutions to [judy.raymond@ct.gov](mailto:judy.raymond@ct.gov) after Policy Board meeting.

It is important that all MPOs follow this schedule to ensure that the TIP/STIP Conformity Determinations can go forward on schedule.

**PLANNING ASSUMPTIONS**  
**Ozone and PM2.5**  
**2018-2021 Statewide Transportation Improvement Program**  
**February 7, 2017**

<b>Planning Assumptions for Review</b>	<b>Frequency of Review*</b>	<b>Responsible Agency</b>	<b>Year of Data</b>
Socioeconomic Data	At least every 5 years	CTDOT	2010 Census Data available 2012
DMV Vehicle Registration Data	At least every 5 years	CTDEEP	2011 Data available 2012
State Vehicle Inspection and Maintenance Program	Each conformity round	CTDEEP	Same as currently approved I&M SIP
State Low Emission Vehicle Program	Each conformity round following approval into the SIP	CTDEEP	Same as SIP
VMT Mix Data	At least every 5 years	CTDEEP	2010**
Analysis Years – PM 2.5	Each conformity round	CTDOT/CTDEEP	2018, 2025, 2035, 2040
Analysis Years – Ozone	Each conformity round	CTDOT/CTDEEP	2018, 2025, 2035, 2040
Emission Budget – PM2.5	As SIP revised/updated	CTDEEP	2017 / 2025 PM 2.5
Emission Budget – Ozone	As SIP revised/updated	CTDEEP	2009 SW 2017 Gr.CT
Temperatures and Humidity	As SIP revised/updated	CTDEEP	X
Control Strategies	Each conformity round	CTDEEP	X
HPMS VMT	Each conformity round	CTDOT	2013

\* Review of Planning Assumptions does not necessarily prelude an update or calibration of the travel demand model.

\*\* Data not available until 2011

**APPENDIX B**

**PM 2.5 AND NO<sub>x</sub> PRECURSOR EMISSION OUTPUTS BY  
ANALYSIS YEAR**

### MOVES2014a 2018 County Summary:

County	Total Energy Consumption 91 (Joules/Day)	Pollutant Emission Quantities (Tons/Day)				
		NOx	PM 2.5			
		3 Oxides of Nitrogen	110 Engine Exhaust	116 Breakwear	117 Tirewear	County Total
Fairfield	4.11827E+16	3586.62256	106.55599	24.77817942	11.09023355	<b>142.42441</b>
New Haven	4.09128E+16	3606.08619	107.63560	23.09482299	10.93306084	<b>141.66348</b>
<b>Totals</b>	<b>8.20955E+16</b>	<b>7192.70875</b>	<b>214.19159</b>	<b>47.87300</b>	<b>22.02329</b>	<b>284.08789</b>

### MOVES2014a 2025 County Summary:

County	Total Energy Consumption 91 (Joules/Day)	Pollutant Emission Quantities (Tons/Day)				
		NOx	PM 2.5			
		3 Oxides of Nitrogen	110 Engine Exhaust	116 Breakwear	117 Tirewear	County Total
Fairfield	3.52662E+16	2160.90967	64.00689	26.31050899	11.59185784	<b>101.90926</b>
New Haven	3.53198E+16	2200.86379	64.07627	24.81785853	11.5051571	<b>100.39929</b>
<b>Totals</b>	<b>7.0586E+16</b>	<b>4361.77346</b>	<b>128.08316</b>	<b>51.12837</b>	<b>23.09701</b>	<b>202.30855</b>

### MOVES2014a 2035 County Summary:

County	Total Energy Consumption 91 (Joules/Day)	Pollutant Emission Quantities (Tons/Day)				
		NOx	PM 2.5			
		3 Oxides of Nitrogen	110 Engine Exhaust	116 Breakwear	117 Tirewear	County Total
Fairfield	2.96699E+16	1311.95123	35.35190	28.14450918	12.16987	<b>75.66628</b>
New Haven	3.1165E+16	1414.39240	36.81089	29.27745982	12.63104337	<b>78.71939</b>
<b>Totals</b>	<b>6.08349E+16</b>	<b>2726.34363</b>	<b>72.16278</b>	<b>57.42197</b>	<b>24.80091</b>	<b>154.38567</b>

### MOVES2014a 2040 County Summary:

County	Total Energy Consumption 91 (Joules/Day)	Pollutant Emission Quantities (Tons/Day)				
		NOx	PM 2.5			
		3 Oxides of Nitrogen	110 Engine Exhaust	116 Breakwear	117 Tirewear	County Total
Fairfield	2.90795E+16	1231.66300	29.59599	28.6206817	12.31633363	<b>70.53301</b>
New Haven	3.0721E+16	1340.38513	31.07283	30.073911	12.85454305	<b>74.00128</b>
<b>Totals</b>	<b>5.98005E+16</b>	<b>2572.04813</b>	<b>60.66882</b>	<b>58.69459</b>	<b>25.17088</b>	<b>144.53429</b>

**APPENDIX C**  
**PM2.5 and NO<sub>x</sub> INPUT FILES TO MOVES2014a**

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All pollutants. Caution: Need to eliminate Primary Exhaust PM2.5 Total to avoid double
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CALEV and NLEV databases.
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Include: Fuel Type, Emission Processes, Road Type and Source Use Type
For use in 2017 Conformity.
April 2017]]></description>
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    <onroadoffroad selected="true" />
    <roadtype selected="true" />
    <sourceusetype selected="true" />
    <movesvehicletype selected="false" />
    <onroadscc selected="false" />
    <estimateuncertainty selected="false" numberOfIterations="2"
keepSampledData="false" keepIterations="false" />
    <sector selected="false" />
    <engtechid selected="false" />
    <hpclass selected="false" />
    <regclassid selected="false" />
</outputemissionsbreakdownselection>

```

```

<outputdatabase servername="" databasename="out_ct_2018_2017conformity_annual_20170407" description="" />
  <outputtimestep value="Month"/>
  <outputvmtdata value="true"/>
  <outputsho value="true"/>
  <outputsh value="true"/>
  <outputshp value="false"/>
  <outputshidling value="true"/>
  <outputstarts value="true"/>
  <outputpopulation value="true"/>
  <scaleinputdatabase servername="localhost" databasename="in_2018_9001_ff_2017conformity_annual20170406" description="" />
    <pmsize value="0"/>
    <outputfactors>
      <timefactors selected="true" units="Months"/>
      <distancefactors selected="true" units="Miles"/>
      <massfactors selected="true" units="U.S. Ton" energyunits="Joules"/>
    </outputfactors>
    <savedata>

      </savedata>

    <donotexecute>

      </donotexecute>

      <generatordatabase shouldsave="false" servername="" databasename="" description="" />
        <donotperformfinalaggregation selected="false"/>
        <lookuptableflags scenarioid="" truncateoutput="true" truncateactivity="true" truncatebaserates="true"/>
      </runspec>

```

## 2018 New Haven

```
<runspec version="MOVES2014a-20151201">
    <description><![CDATA[New Haven County (09009) for 2018.
County scale, inventory mode, 12 months (annual run), weekdays and weekends, 24
hours, all fuels (except placeholder and LPG)/source use type combinations, all road
types.
All pollutants. Caution: Need to eliminate Primary Exhaust PM2.5 Total to avoid double
counting.
CALEV and NLEV databases.
Output:
Activity: all.
Include: Fuel Type, Emission Processes, Road Type and Source Use Type
For use in 2017 Conformity.
April 2017]]></description>
<models>
    <model value="ONROAD"/>
</models>
<modelscale value="Inv"/>
<modeldomain value="SINGLE"/>
<geographicselections>
    <geographicselection type="COUNTY" key="9009" description="CONNECTICUT -
New Haven County"/>
</geographicselections>
<timespan>
    <year key="2018"/>
    <month id="1"/>
    <month id="2"/>
    <month id="3"/>
    <month id="4"/>
    <month id="5"/>
    <month id="6"/>
    <month id="7"/>
    <month id="8"/>
    <month id="9"/>
    <month id="10"/>
    <month id="11"/>
    <month id="12"/>
    <day id="2"/>
    <day id="5"/>
    <beginhour id="1"/>
    <endhour id="24"/>
    <aggregateBy key="Hour"/>
```

```

</timespan>
<onroadvehicleselections>
    <onroadvehicleselection fueltypeid="3" fueltypedesc="Compressed Natural Gas (CNG)" sourcetypeid="42" sourcetypename="Transit Bus"/>
        <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="62" sourcetypename="Combination Long-haul Truck"/>
            <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="61" sourcetypename="Combination Short-haul Truck"/>
                <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="41" sourcetypename="Intercity Bus"/>
                    <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
                        <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="54" sourcetypename="Motor Home"/>
                            <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="21" sourcetypename="Passenger Car"/>
                                <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="31" sourcetypename="Passenger Truck"/>
                                    <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="51" sourcetypename="Refuse Truck"/>
                                        <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="43" sourcetypename="School Bus"/>
                                            <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="53" sourcetypename="Single Unit Long-haul Truck"/>
                                                <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="52" sourcetypename="Single Unit Short-haul Truck"/>
                                                    <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="42" sourcetypename="Transit Bus"/>
                                                        <onroadvehicleselection fueltypeid="9" fueltypedesc="Electricity" sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
                                                            <onroadvehicleselection fueltypeid="9" fueltypedesc="Electricity" sourcetypeid="21" sourcetypename="Passenger Car"/>
                                                                <onroadvehicleselection fueltypeid="9" fueltypedesc="Electricity" sourcetypeid="31" sourcetypename="Passenger Truck"/>
                                                                    <onroadvehicleselection fueltypeid="5" fueltypedesc="Ethanol (E-85)" sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
                                                                        <onroadvehicleselection fueltypeid="5" fueltypedesc="Ethanol (E-85)" sourcetypeid="21" sourcetypename="Passenger Car"/>
                                                                            <onroadvehicleselection fueltypeid="5" fueltypedesc="Ethanol (E-85)" sourcetypeid="31" sourcetypename="Passenger Truck"/>
                                                                                <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline" sourcetypeid="61" sourcetypename="Combination Short-haul Truck"/>
                                                                                    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"

```

```

sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="54" sourcetypename="Motor Home"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="11" sourcetypename="Motorcycle"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="21" sourcetypename="Passenger Car"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="31" sourcetypename="Passenger Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="51" sourcetypename="Refuse Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="43" sourcetypename="School Bus"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="53" sourcetypename="Single Unit Long-haul Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="52" sourcetypename="Single Unit Short-haul Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="42" sourcetypename="Transit Bus"/>
</onroadvehicleselections>
<offroadvehicleselections>
</offroadvehicleselections>
<offroadvehiclesccs>
</offroadvehiclesccs>
<roadtypes separateramps="false">
    <roadtype roadtypeid="1" roadtypename="Off-Network"
modelCombination="M1"/>
    <roadtype roadtypeid="2" roadtypename="Rural Restricted Access"
modelCombination="M1"/>
    <roadtype roadtypeid="3" roadtypename="Rural Unrestricted Access"
modelCombination="M1"/>
    <roadtype roadtypeid="4" roadtypename="Urban Restricted Access"
modelCombination="M1"/>
    <roadtype roadtypeid="5" roadtypename="Urban Unrestricted Access"
modelCombination="M1"/>
</roadtypes>
<pollutantprocessassociations>
    <pollutantprocessassociation pollutantkey="118" pollutantname="Composite -
NonECPM" processkey="1" processname="Running Exhaust"/>
    <pollutantprocessassociation pollutantkey="118" pollutantname="Composite -
NonECPM" processkey="2" processname="Start Exhaust"/>
    <pollutantprocessassociation pollutantkey="118" pollutantname="Composite -
NonECPM" processkey="90" processname="Extended Idle Exhaust"/>

```

```

<pollutantprocessassociation pollutantkey="118" pollutantname="Composite - NonECPM" processkey="91" processname="Auxiliary Power Exhaust"/>
    <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="1" processname="Running Exhaust"/>
        <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="2" processname="Start Exhaust"/>
            <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="15" processname="Crankcase Running Exhaust"/>
                <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="16" processname="Crankcase Start Exhaust"/>
                    <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="17" processname="Crankcase Extended Idle Exhaust"/>
                        <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="90" processname="Extended Idle Exhaust"/>
                            <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="91" processname="Auxiliary Power Exhaust"/>
                                <pollutantprocessassociation pollutantkey="119" pollutantname="H2O (aerosol)" processkey="1" processname="Running Exhaust"/>
                                    <pollutantprocessassociation pollutantkey="119" pollutantname="H2O (aerosol)" processkey="2" processname="Start Exhaust"/>
                                        <pollutantprocessassociation pollutantkey="119" pollutantname="H2O (aerosol)" processkey="90" processname="Extended Idle Exhaust"/>
                                            <pollutantprocessassociation pollutantkey="119" pollutantname="H2O (aerosol)" processkey="91" processname="Auxiliary Power Exhaust"/>
                                                <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="1" processname="Running Exhaust"/>
                                                    <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="2" processname="Start Exhaust"/>
                                                        <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="15" processname="Crankcase Running Exhaust"/>
                                                            <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="16" processname="Crankcase Start Exhaust"/>
                                                                <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="17" processname="Crankcase Extended Idle Exhaust"/>
                                                                    <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="90" processname="Extended Idle Exhaust"/>
                                                                        <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="91" processname="Auxiliary Power Exhaust"/>
                                <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of Nitrogen (NOx)" processkey="1" processname="Running Exhaust"/>
                            <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of Nitrogen (NOx)" processkey="2" processname="Start Exhaust"/>
                        <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of

```

Nitrogen (NOx)" processkey="15" processname="Crankcase Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
 Nitrogen (NOx)" processkey="16" processname="Crankcase Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
 Nitrogen (NOx)" processkey="17" processname="Crankcase Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
 Nitrogen (NOx)" processkey="90" processname="Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
 Nitrogen (NOx)" processkey="91" processname="Auxiliary Power Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="1" processname="Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="2" processname="Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="15" processname="Crankcase Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="16" processname="Crankcase Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="17" processname="Crankcase Extended Idle  
 Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="90" processname="Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="91" processname="Auxiliary Power Exhaust"/>  
 <pollutantprocessassociation pollutantkey="116" pollutantname="Primary  
 PM2.5 - Brakewear Particulate" processkey="9" processname="Brakewear"/>  
 <pollutantprocessassociation pollutantkey="117" pollutantname="Primary  
 PM2.5 - Tirewear Particulate" processkey="10" processname="Tirewear"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="1" processname="Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="2" processname="Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="15" processname="Crankcase Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="16" processname="Crankcase Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="17" processname="Crankcase Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="90" processname="Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="91" processname="Auxiliary Power Exhaust"/>  
 <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy

```

Consumption" processkey="1" processname="Running Exhaust"/>
    <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy
Consumption" processkey="2" processname="Start Exhaust"/>
    <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy
Consumption" processkey="90" processname="Extended Idle Exhaust"/>
    <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy
Consumption" processkey="91" processname="Auxiliary Power Exhaust"/>
</pollutantprocessassociations>
<databaseselections>
    <databaseselection servername="" databasename="MOVES2014_early_NLEV"
description="" />
    <databaseselection servername="" databasename="MOVES2014_mylevs"
description="" />
</databaseselections>
<internalcontrolstrategies>
<internalcontrolstrategy
classname="gov.epa.otaq.moves.master.implementation.ghg.internalcontrolstrategies.ra
teofprogress.RateOfProgressStrategy"><![CDATA[
useParameters No

]]></internalcontrolstrategy>
</internalcontrolstrategies>
<inputdatabase servername="" databasename="" description="" />
<uncertaintyparameters uncertaintymodeenabled="false"
numberofrunspersimulation="0" numberofsimulations="0" />
<geographicoutputdetail description="COUNTY" />
<outputemissionsbreakdownselection>
    <modelyear selected="false" />
    <fueltype selected="true" />
    <fuelsubtype selected="false" />
    <emissionprocess selected="true" />
    <onroadoffroad selected="true" />
    <roadtype selected="true" />
    <sourceusetype selected="true" />
    <movesvehicletype selected="false" />
    <onroadscc selected="false" />
    <estimateuncertainty selected="false" numberOfIterations="2"
keepSampledData="false" keepIterations="false" />
    <sector selected="false" />
    <engtechid selected="false" />
    <hpclass selected="false" />
    <regclassid selected="false" />
</outputemissionsbreakdownselection>

```

```

<outputdatabase servername="" databasename="out_ct_2018_2017conformity_annual_20170407" description="" />
  <outputtimestep value="Month"/>
  <outputvmtdata value="true"/>
  <outputsho value="true"/>
  <outputsh value="true"/>
  <outputshp value="true"/>
  <outputshidling value="true"/>
  <outputstarts value="true"/>
  <outputpopulation value="true"/>
  <scaleinputdatabase servername="localhost" databasename="in_2018_9009_nh_2017conformity_annual20170410" description="" />
  <pmsize value="0"/>
  <outputfactors>
    <timefactors selected="true" units="Months"/>
    <distancefactors selected="true" units="Miles"/>
    <massfactors selected="true" units="U.S. Ton" energyunits="Joules"/>
  </outputfactors>
  <savedata>

    </savedata>

  <donotexecute>

    </donotexecute>

    <generatordatabase shouldsave="false" servername="" databasename="" description="" />
      <donotperformfinalaggregation selected="false"/>
      <lookuptableflags scenarioid="" truncateoutput="true" truncateactivity="true" truncatebaserates="true"/>
    </runspec>

```

## 2025 Fairfield

```
<runspec version="MOVES2014a-20151201">
    <description><![CDATA[Fairfield County (09001) for 2025.
County scale, inventory mode, 12 months (annual run), weekdays and weekends, 24
hours, all fuels (except placeholder and LPG)/source use type combinations, all road
types.
All pollutants. Caution: Need to eliminate Primary Exhaust PM2.5 Total to avoid double
counting.
CALEV and NLEV databases.
Output:
Activity: all.
Include: Fuel Type, Emission Processes, Road Type and Source Use Type
For use in 2017 Conformity.
April 2017]]></description>
<models>
    <model value="ONROAD"/>
</models>
<modelscale value="Inv"/>
<modeldomain value="SINGLE"/>
<geographicselections>
    <geographicselection type="COUNTY" key="9001" description="CONNECTICUT -
Fairfield County"/>
</geographicselections>
<timespan>
    <year key="2025"/>
    <month id="1"/>
    <month id="2"/>
    <month id="3"/>
    <month id="4"/>
    <month id="5"/>
    <month id="6"/>
    <month id="7"/>
    <month id="8"/>
    <month id="9"/>
    <month id="10"/>
    <month id="11"/>
    <month id="12"/>
    <day id="2"/>
    <day id="5"/>
    <beginhour id="1"/>
    <endhour id="24"/>
    <aggregateBy key="Hour"/>
```

```

</timespan>
<onroadvehicleselections>
    <onroadvehicleselection fueltypeid="3" fueltypedesc="Compressed Natural Gas (CNG)" sourcetypeid="42" sourcetypename="Transit Bus"/>
        <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="62" sourcetypename="Combination Long-haul Truck"/>
            <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="61" sourcetypename="Combination Short-haul Truck"/>
                <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="41" sourcetypename="Intercity Bus"/>
                    <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
                        <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="54" sourcetypename="Motor Home"/>
                            <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="21" sourcetypename="Passenger Car"/>
                                <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="31" sourcetypename="Passenger Truck"/>
                                    <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="51" sourcetypename="Refuse Truck"/>
                                        <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="43" sourcetypename="School Bus"/>
                                            <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="53" sourcetypename="Single Unit Long-haul Truck"/>
                                                <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="52" sourcetypename="Single Unit Short-haul Truck"/>
                                                    <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="42" sourcetypename="Transit Bus"/>
                                                        <onroadvehicleselection fueltypeid="9" fueltypedesc="Electricity" sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
                                                            <onroadvehicleselection fueltypeid="9" fueltypedesc="Electricity" sourcetypeid="21" sourcetypename="Passenger Car"/>
                                                                <onroadvehicleselection fueltypeid="9" fueltypedesc="Electricity" sourcetypeid="31" sourcetypename="Passenger Truck"/>
                                                                    <onroadvehicleselection fueltypeid="5" fueltypedesc="Ethanol (E-85)" sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
                                                                        <onroadvehicleselection fueltypeid="5" fueltypedesc="Ethanol (E-85)" sourcetypeid="21" sourcetypename="Passenger Car"/>
                                                                            <onroadvehicleselection fueltypeid="5" fueltypedesc="Ethanol (E-85)" sourcetypeid="31" sourcetypename="Passenger Truck"/>
                                                                                <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline" sourcetypeid="61" sourcetypename="Combination Short-haul Truck"/>
                                                                                    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"

```

```

sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="54" sourcetypename="Motor Home"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="11" sourcetypename="Motorcycle"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="21" sourcetypename="Passenger Car"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="31" sourcetypename="Passenger Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="51" sourcetypename="Refuse Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="43" sourcetypename="School Bus"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="53" sourcetypename="Single Unit Long-haul Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="52" sourcetypename="Single Unit Short-haul Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="42" sourcetypename="Transit Bus"/>
</onroadvehicleselections>
<offroadvehicleselections>
</offroadvehicleselections>
<offroadvehiclesccs>
</offroadvehiclesccs>
<roadtypes separateramps="false">
    <roadtype roadtypeid="1" roadtypename="Off-Network"
modelCombination="M1"/>
    <roadtype roadtypeid="2" roadtypename="Rural Restricted Access"
modelCombination="M1"/>
    <roadtype roadtypeid="3" roadtypename="Rural Unrestricted Access"
modelCombination="M1"/>
    <roadtype roadtypeid="4" roadtypename="Urban Restricted Access"
modelCombination="M1"/>
    <roadtype roadtypeid="5" roadtypename="Urban Unrestricted Access"
modelCombination="M1"/>
</roadtypes>
<pollutantprocessassociations>
    <pollutantprocessassociation pollutantkey="118" pollutantname="Composite -
NonECPM" processkey="1" processname="Running Exhaust"/>
    <pollutantprocessassociation pollutantkey="118" pollutantname="Composite -
NonECPM" processkey="2" processname="Start Exhaust"/>
    <pollutantprocessassociation pollutantkey="118" pollutantname="Composite -
NonECPM" processkey="90" processname="Extended Idle Exhaust"/>

```

```

<pollutantprocessassociation pollutantkey="118" pollutantname="Composite - NonECPM" processkey="91" processname="Auxiliary Power Exhaust"/>
    <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="1" processname="Running Exhaust"/>
        <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="2" processname="Start Exhaust"/>
            <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="15" processname="Crankcase Running Exhaust"/>
                <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="16" processname="Crankcase Start Exhaust"/>
                    <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="17" processname="Crankcase Extended Idle Exhaust"/>
                        <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="90" processname="Extended Idle Exhaust"/>
                            <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="91" processname="Auxiliary Power Exhaust"/>
                                <pollutantprocessassociation pollutantkey="119" pollutantname="H2O (aerosol)" processkey="1" processname="Running Exhaust"/>
                                    <pollutantprocessassociation pollutantkey="119" pollutantname="H2O (aerosol)" processkey="2" processname="Start Exhaust"/>
                                        <pollutantprocessassociation pollutantkey="119" pollutantname="H2O (aerosol)" processkey="90" processname="Extended Idle Exhaust"/>
                                            <pollutantprocessassociation pollutantkey="119" pollutantname="H2O (aerosol)" processkey="91" processname="Auxiliary Power Exhaust"/>
                                                <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="1" processname="Running Exhaust"/>
                                                    <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="2" processname="Start Exhaust"/>
                                                        <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="15" processname="Crankcase Running Exhaust"/>
                                                            <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="16" processname="Crankcase Start Exhaust"/>
                                                                <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="17" processname="Crankcase Extended Idle Exhaust"/>
                                                                    <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="90" processname="Extended Idle Exhaust"/>
                                                                        <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="91" processname="Auxiliary Power Exhaust"/>
                                <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of Nitrogen (NOx)" processkey="1" processname="Running Exhaust"/>
                            <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of Nitrogen (NOx)" processkey="2" processname="Start Exhaust"/>
                        <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of

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Nitrogen (NOx)" processkey="15" processname="Crankcase Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
 Nitrogen (NOx)" processkey="16" processname="Crankcase Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
 Nitrogen (NOx)" processkey="17" processname="Crankcase Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
 Nitrogen (NOx)" processkey="90" processname="Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
 Nitrogen (NOx)" processkey="91" processname="Auxiliary Power Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="1" processname="Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="2" processname="Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="15" processname="Crankcase Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="16" processname="Crankcase Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="17" processname="Crankcase Extended Idle  
 Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="90" processname="Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="91" processname="Auxiliary Power Exhaust"/>  
 <pollutantprocessassociation pollutantkey="116" pollutantname="Primary  
 PM2.5 - Brakewear Particulate" processkey="9" processname="Brakewear"/>  
 <pollutantprocessassociation pollutantkey="117" pollutantname="Primary  
 PM2.5 - Tirewear Particulate" processkey="10" processname="Tirewear"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="1" processname="Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="2" processname="Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="15" processname="Crankcase Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="16" processname="Crankcase Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="17" processname="Crankcase Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="90" processname="Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="91" processname="Auxiliary Power Exhaust"/>  
 <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy

```

Consumption" processkey="1" processname="Running Exhaust"/>
    <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy
Consumption" processkey="2" processname="Start Exhaust"/>
    <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy
Consumption" processkey="90" processname="Extended Idle Exhaust"/>
    <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy
Consumption" processkey="91" processname="Auxiliary Power Exhaust"/>
</pollutantprocessassociations>
<databaseselections>
    <databaseselection servername="" databasename="MOVES2014_early_NLEV"
description="" />
    <databaseselection servername="" databasename="MOVES2014_mylevs"
description="" />
</databaseselections>
<internalcontrolstrategies>
<internalcontrolstrategy
classname="gov.epa.otaq.moves.master.implementation.ghg.internalcontrolstrategies.ra
teofprogress.RateOfProgressStrategy"><![CDATA[
useParameters No

]]></internalcontrolstrategy>
</internalcontrolstrategies>
<inputdatabase servername="" databasename="" description="" />
<uncertaintyparameters uncertaintymodeenabled="false"
numberofrunspersimulation="0" numberofsimulations="0" />
<geographicoutputdetail description="COUNTY" />
<outputemissionsbreakdownselection>
    <modelyear selected="false" />
    <fueltype selected="true" />
    <fuelsubtype selected="false" />
    <emissionprocess selected="true" />
    <onroadoffroad selected="true" />
    <roadtype selected="true" />
    <sourceusetype selected="true" />
    <movesvehicletype selected="false" />
    <onroadscc selected="false" />
    <estimateuncertainty selected="false" numberOfIterations="2"
keepSampledData="false" keepIterations="false" />
    <sector selected="false" />
    <engtechid selected="false" />
    <hpclass selected="false" />
    <regclassid selected="false" />
</outputemissionsbreakdownselection>

```

```

<outputdatabase servername=""
databasename="out_ct_2025_2017conformity_annual_20170406" description="" />
<outputtimestep value="Month"/>
<outputvmtdata value="true"/>
<outputsho value="true"/>
<outputsh value="true"/>
<outputshp value="true"/>
<outputshidling value="true"/>
<outputstarts value="true"/>
<outputpopulation value="true"/>
<scaleinputdatabase servername="localhost"
databasename="in_2025_9001_ff_2017conformity_annual20170406" description="" />
<pmsize value="0"/>
<outputfactors>
    <timefactors selected="true" units="Months"/>
    <distancefactors selected="true" units="Miles"/>
    <massfactors selected="true" units="U.S. Ton" energyunits="Joules"/>
</outputfactors>
<savedata>

</savedata>

<donotexecute>

</donotexecute>

<generatordatabase shouldsave="false" servername="" databasename=""
description="" />
    <donotperformfinalaggregation selected="false"/>
    <lookuptableflags scenarioid="" truncateoutput="true" truncateactivity="true"
truncatebaserates="true"/>
</runspec>

```

## 2025 New Haven

```
<runspec version="MOVES2014a-20151201">
    <description><![CDATA[New Haven County (09009) for 2025.
County scale, inventory mode, 12 months (annual run), weekdays and weekends, 24
hours, all fuels (except placeholder and LPG)/source use type combinations, all road
types.
All pollutants. Caution: Need to eliminate Primary Exhaust PM2.5 Total to avoid double
counting.
CALEV and NLEV databases.
Output:
Activity: all.
Include: Fuel Type, Emission Processes, Road Type and Source Use Type
For use in 2017 Conformity.
April 2017]]></description>
<models>
    <model value="ONROAD"/>
</models>
<modelscale value="Inv"/>
<modeldomain value="SINGLE"/>
<geographicselections>
    <geographicselection type="COUNTY" key="9009" description="CONNECTICUT -
New Haven County"/>
</geographicselections>
<timespan>
    <year key="2025"/>
    <month id="1"/>
    <month id="2"/>
    <month id="3"/>
    <month id="4"/>
    <month id="5"/>
    <month id="6"/>
    <month id="7"/>
    <month id="8"/>
    <month id="9"/>
    <month id="10"/>
    <month id="11"/>
    <month id="12"/>
    <day id="2"/>
    <day id="5"/>
    <beginhour id="1"/>
    <endhour id="24"/>
    <aggregateBy key="Hour"/>
```

```

</timespan>
<onroadvehicleselections>
    <onroadvehicleselection fueltypeid="3" fueltypedesc="Compressed Natural Gas (CNG)" sourcetypeid="42" sourcetypename="Transit Bus"/>
        <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="62" sourcetypename="Combination Long-haul Truck"/>
            <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="61" sourcetypename="Combination Short-haul Truck"/>
                <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="41" sourcetypename="Intercity Bus"/>
                    <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
                        <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="54" sourcetypename="Motor Home"/>
                            <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="21" sourcetypename="Passenger Car"/>
                                <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="31" sourcetypename="Passenger Truck"/>
                                    <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="51" sourcetypename="Refuse Truck"/>
                                        <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="43" sourcetypename="School Bus"/>
                                            <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="53" sourcetypename="Single Unit Long-haul Truck"/>
                                                <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="52" sourcetypename="Single Unit Short-haul Truck"/>
                                                    <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="42" sourcetypename="Transit Bus"/>
                                                        <onroadvehicleselection fueltypeid="9" fueltypedesc="Electricity" sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
                                                            <onroadvehicleselection fueltypeid="9" fueltypedesc="Electricity" sourcetypeid="21" sourcetypename="Passenger Car"/>
                                                                <onroadvehicleselection fueltypeid="9" fueltypedesc="Electricity" sourcetypeid="31" sourcetypename="Passenger Truck"/>
                                                                    <onroadvehicleselection fueltypeid="5" fueltypedesc="Ethanol (E-85)" sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
                                                                        <onroadvehicleselection fueltypeid="5" fueltypedesc="Ethanol (E-85)" sourcetypeid="21" sourcetypename="Passenger Car"/>
                                                                            <onroadvehicleselection fueltypeid="5" fueltypedesc="Ethanol (E-85)" sourcetypeid="31" sourcetypename="Passenger Truck"/>
                                                                                <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline" sourcetypeid="61" sourcetypename="Combination Short-haul Truck"/>
                                                                                    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"

```

```

sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="54" sourcetypename="Motor Home"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="11" sourcetypename="Motorcycle"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="21" sourcetypename="Passenger Car"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="31" sourcetypename="Passenger Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="51" sourcetypename="Refuse Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="43" sourcetypename="School Bus"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="53" sourcetypename="Single Unit Long-haul Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="52" sourcetypename="Single Unit Short-haul Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="42" sourcetypename="Transit Bus"/>
</onroadvehicleselections>
<offroadvehicleselections>
</offroadvehicleselections>
<offroadvehiclesccs>
</offroadvehiclesccs>
<roadtypes separateramps="false">
    <roadtype roadtypeid="1" roadtypename="Off-Network"
modelCombination="M1"/>
    <roadtype roadtypeid="2" roadtypename="Rural Restricted Access"
modelCombination="M1"/>
    <roadtype roadtypeid="3" roadtypename="Rural Unrestricted Access"
modelCombination="M1"/>
    <roadtype roadtypeid="4" roadtypename="Urban Restricted Access"
modelCombination="M1"/>
    <roadtype roadtypeid="5" roadtypename="Urban Unrestricted Access"
modelCombination="M1"/>
</roadtypes>
<pollutantprocessassociations>
    <pollutantprocessassociation pollutantkey="118" pollutantname="Composite -
NonECPM" processkey="1" processname="Running Exhaust"/>
    <pollutantprocessassociation pollutantkey="118" pollutantname="Composite -
NonECPM" processkey="2" processname="Start Exhaust"/>
    <pollutantprocessassociation pollutantkey="118" pollutantname="Composite -
NonECPM" processkey="90" processname="Extended Idle Exhaust"/>

```

```

<pollutantprocessassociation pollutantkey="118" pollutantname="Composite - NonECPM" processkey="91" processname="Auxiliary Power Exhaust"/>
    <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="1" processname="Running Exhaust"/>
        <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="2" processname="Start Exhaust"/>
            <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="15" processname="Crankcase Running Exhaust"/>
                <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="16" processname="Crankcase Start Exhaust"/>
                    <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="17" processname="Crankcase Extended Idle Exhaust"/>
                        <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="90" processname="Extended Idle Exhaust"/>
                            <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="91" processname="Auxiliary Power Exhaust"/>
                                <pollutantprocessassociation pollutantkey="119" pollutantname="H2O (aerosol)" processkey="1" processname="Running Exhaust"/>
                                    <pollutantprocessassociation pollutantkey="119" pollutantname="H2O (aerosol)" processkey="2" processname="Start Exhaust"/>
                                        <pollutantprocessassociation pollutantkey="119" pollutantname="H2O (aerosol)" processkey="90" processname="Extended Idle Exhaust"/>
                                            <pollutantprocessassociation pollutantkey="119" pollutantname="H2O (aerosol)" processkey="91" processname="Auxiliary Power Exhaust"/>
                                                <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="1" processname="Running Exhaust"/>
                                                    <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="2" processname="Start Exhaust"/>
                                                        <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="15" processname="Crankcase Running Exhaust"/>
                                                            <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="16" processname="Crankcase Start Exhaust"/>
                                                                <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="17" processname="Crankcase Extended Idle Exhaust"/>
                                                                    <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="90" processname="Extended Idle Exhaust"/>
                                                                        <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="91" processname="Auxiliary Power Exhaust"/>
                                <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of Nitrogen (NOx)" processkey="1" processname="Running Exhaust"/>
                            <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of Nitrogen (NOx)" processkey="2" processname="Start Exhaust"/>
                        <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of

```

Nitrogen (NOx)" processkey="15" processname="Crankcase Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
 Nitrogen (NOx)" processkey="16" processname="Crankcase Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
 Nitrogen (NOx)" processkey="17" processname="Crankcase Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
 Nitrogen (NOx)" processkey="90" processname="Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
 Nitrogen (NOx)" processkey="91" processname="Auxiliary Power Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="1" processname="Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="2" processname="Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="15" processname="Crankcase Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="16" processname="Crankcase Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="17" processname="Crankcase Extended Idle  
 Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="90" processname="Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="91" processname="Auxiliary Power Exhaust"/>  
 <pollutantprocessassociation pollutantkey="116" pollutantname="Primary  
 PM2.5 - Brakewear Particulate" processkey="9" processname="Brakewear"/>  
 <pollutantprocessassociation pollutantkey="117" pollutantname="Primary  
 PM2.5 - Tirewear Particulate" processkey="10" processname="Tirewear"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="1" processname="Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="2" processname="Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="15" processname="Crankcase Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="16" processname="Crankcase Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="17" processname="Crankcase Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="90" processname="Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="91" processname="Auxiliary Power Exhaust"/>  
 <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy

```

Consumption" processkey="1" processname="Running Exhaust"/>
    <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy
Consumption" processkey="2" processname="Start Exhaust"/>
    <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy
Consumption" processkey="90" processname="Extended Idle Exhaust"/>
    <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy
Consumption" processkey="91" processname="Auxiliary Power Exhaust"/>
</pollutantprocessassociations>
<databaseselections>
    <databaseselection servername="" databasename="MOVES2014_early_NLEV"
description="" />
    <databaseselection servername="" databasename="MOVES2014_mylevs"
description="" />
</databaseselections>
<internalcontrolstrategies>
<internalcontrolstrategy
classname="gov.epa.otaq.moves.master.implementation.ghg.internalcontrolstrategies.ra
teofprogress.RateOfProgressStrategy"><![CDATA[
useParameters No

]]></internalcontrolstrategy>
</internalcontrolstrategies>
<inputdatabase servername="" databasename="" description="" />
<uncertaintyparameters uncertaintymodeenabled="false"
numberofrunspersimulation="0" numberofsimulations="0" />
<geographicoutputdetail description="COUNTY" />
<outputemissionsbreakdownselection>
    <modelyear selected="false" />
    <fueltype selected="true" />
    <fuelsubtype selected="false" />
    <emissionprocess selected="true" />
    <onroadoffroad selected="true" />
    <roadtype selected="true" />
    <sourceusetype selected="true" />
    <movesvehicletype selected="false" />
    <onroadscc selected="false" />
    <estimateuncertainty selected="false" numberOfIterations="2"
keepSampledData="false" keepIterations="false" />
    <sector selected="false" />
    <engtechid selected="false" />
    <hpclass selected="false" />
    <regclassid selected="false" />
</outputemissionsbreakdownselection>

```

```

<outputdatabase servername=""
databasename="out_ct_2025_2017conformity_annual_20170406" description="" />
<outputtimestep value="Month"/>
<outputvmtdata value="true"/>
<outputsho value="true"/>
<outputsh value="true"/>
<outputshp value="true"/>
<outputshidling value="true"/>
<outputstarts value="true"/>
<outputpopulation value="true"/>
<scaleinputdatabase servername="localhost"
databasename="in_2025_9009_nh_2017conformity_annual20170407" description="" />
<pmsize value="0"/>
<outputfactors>
    <timefactors selected="true" units="Months"/>
    <distancefactors selected="true" units="Miles"/>
    <massfactors selected="true" units="U.S. Ton" energyunits="Joules"/>
</outputfactors>
<savedata>

</savedata>

<donotexecute>

</donotexecute>

<generatordatabase shouldsave="false" servername="" databasename=""
description="" />
    <donotperformfinalaggregation selected="false"/>
    <lookuptableflags scenarioid="" truncateoutput="true" truncateactivity="true"
truncatebaserates="true"/>
</runspec>

```

## 2035 Fairfield

```
<runspec version="MOVES2014a-20151201">
    <description><![CDATA[Fairfield County (09001) for 2035.
County scale, inventory mode, 12 months (annual run), weekdays and weekends, 24
hours, all fuels (except placeholder and LPG)/source use type combinations, all road
types.
All pollutants. Caution: Need to eliminate Primary Exhaust PM2.5 Total to avoid double
counting.
CALEV and NLEV databases.
Output:
Activity: all.
Include: Fuel Type, Emission Processes, Road Type and Source Use Type
For use in 2017 Conformity.
April 2017]]></description>
<models>
    <model value="ONROAD"/>
</models>
<modelscale value="Inv"/>
<modeldomain value="SINGLE"/>
<geographicselections>
    <geographicselection type="COUNTY" key="9001" description="CONNECTICUT -
Fairfield County"/>
</geographicselections>
<timespan>
    <year key="2035"/>
    <month id="1"/>
    <month id="2"/>
    <month id="3"/>
    <month id="4"/>
    <month id="5"/>
    <month id="6"/>
    <month id="7"/>
    <month id="8"/>
    <month id="9"/>
    <month id="10"/>
    <month id="11"/>
    <month id="12"/>
    <day id="2"/>
    <day id="5"/>
    <beginhour id="1"/>
    <endhour id="24"/>
    <aggregateBy key="Hour"/>
```

```

</timespan>
<onroadvehicleselections>
    <onroadvehicleselection fueltypeid="3" fueltypedesc="Compressed Natural Gas (CNG)" sourcetypeid="42" sourcetypename="Transit Bus"/>
        <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="62" sourcetypename="Combination Long-haul Truck"/>
            <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="61" sourcetypename="Combination Short-haul Truck"/>
                <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="41" sourcetypename="Intercity Bus"/>
                    <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
                        <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="54" sourcetypename="Motor Home"/>
                            <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="21" sourcetypename="Passenger Car"/>
                                <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="31" sourcetypename="Passenger Truck"/>
                                    <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="51" sourcetypename="Refuse Truck"/>
                                        <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="43" sourcetypename="School Bus"/>
                                            <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="53" sourcetypename="Single Unit Long-haul Truck"/>
                                                <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="52" sourcetypename="Single Unit Short-haul Truck"/>
                                                    <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="42" sourcetypename="Transit Bus"/>
                                                        <onroadvehicleselection fueltypeid="9" fueltypedesc="Electricity" sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
                                                            <onroadvehicleselection fueltypeid="9" fueltypedesc="Electricity" sourcetypeid="21" sourcetypename="Passenger Car"/>
                                                                <onroadvehicleselection fueltypeid="9" fueltypedesc="Electricity" sourcetypeid="31" sourcetypename="Passenger Truck"/>
                                                                    <onroadvehicleselection fueltypeid="5" fueltypedesc="Ethanol (E-85)" sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
                                                                        <onroadvehicleselection fueltypeid="5" fueltypedesc="Ethanol (E-85)" sourcetypeid="21" sourcetypename="Passenger Car"/>
                                                                            <onroadvehicleselection fueltypeid="5" fueltypedesc="Ethanol (E-85)" sourcetypeid="31" sourcetypename="Passenger Truck"/>
                                                                                <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline" sourcetypeid="61" sourcetypename="Combination Short-haul Truck"/>
                                                                                    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"

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```

sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="54" sourcetypename="Motor Home"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="11" sourcetypename="Motorcycle"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="21" sourcetypename="Passenger Car"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="31" sourcetypename="Passenger Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="51" sourcetypename="Refuse Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="43" sourcetypename="School Bus"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="53" sourcetypename="Single Unit Long-haul Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="52" sourcetypename="Single Unit Short-haul Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="42" sourcetypename="Transit Bus"/>
</onroadvehicleselections>
<offroadvehicleselections>
</offroadvehicleselections>
<offroadvehiclesccs>
</offroadvehiclesccs>
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modelCombination="M1"/>
    <roadtype roadtypeid="2" roadtypename="Rural Restricted Access"
modelCombination="M1"/>
    <roadtype roadtypeid="3" roadtypename="Rural Unrestricted Access"
modelCombination="M1"/>
    <roadtype roadtypeid="4" roadtypename="Urban Restricted Access"
modelCombination="M1"/>
    <roadtype roadtypeid="5" roadtypename="Urban Unrestricted Access"
modelCombination="M1"/>
</roadtypes>
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    <pollutantprocessassociation pollutantkey="118" pollutantname="Composite -
NonECPM" processkey="1" processname="Running Exhaust"/>
    <pollutantprocessassociation pollutantkey="118" pollutantname="Composite -
NonECPM" processkey="2" processname="Start Exhaust"/>
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NonECPM" processkey="90" processname="Extended Idle Exhaust"/>

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<pollutantprocessassociation pollutantkey="118" pollutantname="Composite - NonECPM" processkey="91" processname="Auxiliary Power Exhaust"/>
    <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="1" processname="Running Exhaust"/>
        <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="2" processname="Start Exhaust"/>
            <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="15" processname="Crankcase Running Exhaust"/>
                <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="16" processname="Crankcase Start Exhaust"/>
                    <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="17" processname="Crankcase Extended Idle Exhaust"/>
                        <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="90" processname="Extended Idle Exhaust"/>
                            <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="91" processname="Auxiliary Power Exhaust"/>
                                <pollutantprocessassociation pollutantkey="119" pollutantname="H2O (aerosol)" processkey="1" processname="Running Exhaust"/>
                                    <pollutantprocessassociation pollutantkey="119" pollutantname="H2O (aerosol)" processkey="2" processname="Start Exhaust"/>
                                        <pollutantprocessassociation pollutantkey="119" pollutantname="H2O (aerosol)" processkey="90" processname="Extended Idle Exhaust"/>
                                            <pollutantprocessassociation pollutantkey="119" pollutantname="H2O (aerosol)" processkey="91" processname="Auxiliary Power Exhaust"/>
                                                <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="1" processname="Running Exhaust"/>
                                                    <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="2" processname="Start Exhaust"/>
                                                        <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="15" processname="Crankcase Running Exhaust"/>
                                                            <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="16" processname="Crankcase Start Exhaust"/>
                                                                <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="17" processname="Crankcase Extended Idle Exhaust"/>
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                                                                        <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="91" processname="Auxiliary Power Exhaust"/>
                                <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of Nitrogen (NOx)" processkey="1" processname="Running Exhaust"/>
                            <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of Nitrogen (NOx)" processkey="2" processname="Start Exhaust"/>
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Nitrogen (NOx)" processkey="15" processname="Crankcase Running Exhaust"/>  
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 Nitrogen (NOx)" processkey="16" processname="Crankcase Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
 Nitrogen (NOx)" processkey="17" processname="Crankcase Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
 Nitrogen (NOx)" processkey="90" processname="Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
 Nitrogen (NOx)" processkey="91" processname="Auxiliary Power Exhaust"/>  
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 Exhaust PM2.5 - Total" processkey="1" processname="Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="2" processname="Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="15" processname="Crankcase Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="16" processname="Crankcase Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="17" processname="Crankcase Extended Idle  
 Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="90" processname="Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="91" processname="Auxiliary Power Exhaust"/>  
 <pollutantprocessassociation pollutantkey="116" pollutantname="Primary  
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 <pollutantprocessassociation pollutantkey="117" pollutantname="Primary  
 PM2.5 - Tirewear Particulate" processkey="10" processname="Tirewear"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="1" processname="Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="2" processname="Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="15" processname="Crankcase Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="16" processname="Crankcase Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="17" processname="Crankcase Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="90" processname="Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="91" processname="Auxiliary Power Exhaust"/>  
 <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy

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Consumption" processkey="1" processname="Running Exhaust"/>
    <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy
Consumption" processkey="2" processname="Start Exhaust"/>
    <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy
Consumption" processkey="90" processname="Extended Idle Exhaust"/>
    <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy
Consumption" processkey="91" processname="Auxiliary Power Exhaust"/>
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<databaseselections>
    <databaseselection servername="" databasename="MOVES2014_early_NLEV"
description="" />
    <databaseselection servername="" databasename="MOVES2014_mylevs"
description="" />
</databaseselections>
<internalcontrolstrategies>
<internalcontrolstrategy
classname="gov.epa.otaq.moves.master.implementation.ghg.internalcontrolstrategies.ra
teofprogress.RateOfProgressStrategy"><![CDATA[
useParameters No

]]></internalcontrolstrategy>
</internalcontrolstrategies>
<inputdatabase servername="" databasename="" description="" />
<uncertaintyparameters uncertaintymodeenabled="false"
numberofrunspersimulation="0" numberofsimulations="0"/>
<geographicoutputdetail description="COUNTY"/>
<outputemissionsbreakdownselection>
    <modelyear selected="false"/>
    <fueltype selected="true"/>
    <fuelsubtype selected="false"/>
    <emissionprocess selected="true"/>
    <onroadoffroad selected="true"/>
    <roadtype selected="true"/>
    <sourceusetype selected="true"/>
    <movesvehicletype selected="false"/>
    <onroadscc selected="false"/>
    <estimateuncertainty selected="false" numberOfIterations="2"
keepSampledData="false" keepIterations="false"/>
    <sector selected="false"/>
    <engtechid selected="false"/>
    <hpclass selected="false"/>
    <regclassid selected="false"/>
</outputemissionsbreakdownselection>

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<outputdatabase servername="" databasename="out_ct_2035_2017conformity_annual_20170410" description="" />
  <outputtimestep value="Month"/>
  <outputvmtdata value="true"/>
  <outputsho value="true"/>
  <outputsh value="true"/>
  <outputshp value="true"/>
  <outputshidling value="true"/>
  <outputstarts value="true"/>
  <outputpopulation value="true"/>
  <scaleinputdatabase servername="localhost" databasename="in_2035_9001_ff_2017conformity_annual20170410" description="" />
  <pmsize value="0"/>
  <outputfactors>
    <timefactors selected="true" units="Months"/>
    <distancefactors selected="true" units="Miles"/>
    <massfactors selected="true" units="U.S. Ton" energyunits="Joules"/>
  </outputfactors>
  <savedata>

  </savedata>

  <donotexecute>

  </donotexecute>

  <generatordatabase shouldsave="false" servername="" databasename="" description="" />
    <donotperformfinalaggregation selected="false"/>
    <lookuptableflags scenarioid="" truncateoutput="true" truncateactivity="true" truncatetablerates="true"/>
  </runspec>

```

## 2035 New Haven

```
<runspec version="MOVES2014a-20151201">
    <description><![CDATA[New Haven County (09009) for 2035.
County scale, inventory mode, 12 months (annual run), weekdays and weekends, 24
hours, all fuels (except placeholder and LPG)/source use type combinations, all road
types.
All pollutants. Caution: Need to eliminate Primary Exhaust PM2.5 Total to avoid double
counting.
CALEV and NLEV databases.
Output:
Activity: all.
Include: Fuel Type, Emission Processes, Road Type and Source Use Type
For use in 2017 Conformity.
April 2017]]></description>
<models>
    <model value="ONROAD"/>
</models>
<modelscale value="Inv"/>
<modeldomain value="SINGLE"/>
<geographicselections>
    <geographicselection type="COUNTY" key="9009" description="CONNECTICUT -
New Haven County"/>
</geographicselections>
<timespan>
    <year key="2035"/>
    <month id="1"/>
    <month id="2"/>
    <month id="3"/>
    <month id="4"/>
    <month id="5"/>
    <month id="6"/>
    <month id="7"/>
    <month id="8"/>
    <month id="9"/>
    <month id="10"/>
    <month id="11"/>
    <month id="12"/>
    <day id="2"/>
    <day id="5"/>
    <beginhour id="1"/>
    <endhour id="24"/>
    <aggregateBy key="Hour"/>
```

```

</timespan>
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        <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="62" sourcetypename="Combination Long-haul Truck"/>
            <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="61" sourcetypename="Combination Short-haul Truck"/>
                <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="41" sourcetypename="Intercity Bus"/>
                    <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
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                                <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="31" sourcetypename="Passenger Truck"/>
                                    <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="51" sourcetypename="Refuse Truck"/>
                                        <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="43" sourcetypename="School Bus"/>
                                            <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="53" sourcetypename="Single Unit Long-haul Truck"/>
                                                <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="52" sourcetypename="Single Unit Short-haul Truck"/>
                                                    <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="42" sourcetypename="Transit Bus"/>
                                                        <onroadvehicleselection fueltypeid="9" fueltypedesc="Electricity" sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
                                                            <onroadvehicleselection fueltypeid="9" fueltypedesc="Electricity" sourcetypeid="21" sourcetypename="Passenger Car"/>
                                                                <onroadvehicleselection fueltypeid="9" fueltypedesc="Electricity" sourcetypeid="31" sourcetypename="Passenger Truck"/>
                                                                    <onroadvehicleselection fueltypeid="5" fueltypedesc="Ethanol (E-85)" sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
                                                                        <onroadvehicleselection fueltypeid="5" fueltypedesc="Ethanol (E-85)" sourcetypeid="21" sourcetypename="Passenger Car"/>
                                                                            <onroadvehicleselection fueltypeid="5" fueltypedesc="Ethanol (E-85)" sourcetypeid="31" sourcetypename="Passenger Truck"/>
                                                                                <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline" sourcetypeid="61" sourcetypename="Combination Short-haul Truck"/>
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sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="54" sourcetypename="Motor Home"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="11" sourcetypename="Motorcycle"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="21" sourcetypename="Passenger Car"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="31" sourcetypename="Passenger Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="51" sourcetypename="Refuse Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="43" sourcetypename="School Bus"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="53" sourcetypename="Single Unit Long-haul Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="52" sourcetypename="Single Unit Short-haul Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="42" sourcetypename="Transit Bus"/>
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<offroadvehicleselections>
</offroadvehicleselections>
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</offroadvehiclesccs>
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modelCombination="M1"/>
    <roadtype roadtypeid="2" roadtypename="Rural Restricted Access"
modelCombination="M1"/>
    <roadtype roadtypeid="3" roadtypename="Rural Unrestricted Access"
modelCombination="M1"/>
    <roadtype roadtypeid="4" roadtypename="Urban Restricted Access"
modelCombination="M1"/>
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modelCombination="M1"/>
</roadtypes>
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NonECPM" processkey="1" processname="Running Exhaust"/>
    <pollutantprocessassociation pollutantkey="118" pollutantname="Composite -
NonECPM" processkey="2" processname="Start Exhaust"/>
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NonECPM" processkey="90" processname="Extended Idle Exhaust"/>

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<pollutantprocessassociation pollutantkey="118" pollutantname="Composite - NonECPM" processkey="91" processname="Auxiliary Power Exhaust"/>
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        <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="2" processname="Start Exhaust"/>
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                <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="16" processname="Crankcase Start Exhaust"/>
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                        <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="90" processname="Extended Idle Exhaust"/>
                            <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="91" processname="Auxiliary Power Exhaust"/>
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                                            <pollutantprocessassociation pollutantkey="119" pollutantname="H2O (aerosol)" processkey="91" processname="Auxiliary Power Exhaust"/>
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                                                    <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="2" processname="Start Exhaust"/>
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                                                            <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="16" processname="Crankcase Start Exhaust"/>
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Nitrogen (NOx)" processkey="15" processname="Crankcase Running Exhaust"/>  
     <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
     Nitrogen (NOx)" processkey="16" processname="Crankcase Start Exhaust"/>  
     <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
     Nitrogen (NOx)" processkey="17" processname="Crankcase Extended Idle Exhaust"/>  
     <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
     Nitrogen (NOx)" processkey="90" processname="Extended Idle Exhaust"/>  
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     Nitrogen (NOx)" processkey="91" processname="Auxiliary Power Exhaust"/>  
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     Exhaust PM2.5 - Total" processkey="2" processname="Start Exhaust"/>  
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     Exhaust PM2.5 - Total" processkey="90" processname="Extended Idle Exhaust"/>  
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     Exhaust PM2.5 - Total" processkey="91" processname="Auxiliary Power Exhaust"/>  
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     <pollutantprocessassociation pollutantkey="117" pollutantname="Primary  
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     <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
     Particulate" processkey="2" processname="Start Exhaust"/>  
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     Particulate" processkey="15" processname="Crankcase Running Exhaust"/>  
     <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
     Particulate" processkey="16" processname="Crankcase Start Exhaust"/>  
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     Particulate" processkey="17" processname="Crankcase Extended Idle Exhaust"/>  
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     Particulate" processkey="90" processname="Extended Idle Exhaust"/>  
     <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
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Consumption" processkey="1" processname="Running Exhaust"/>
    <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy
Consumption" processkey="2" processname="Start Exhaust"/>
    <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy
Consumption" processkey="90" processname="Extended Idle Exhaust"/>
    <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy
Consumption" processkey="91" processname="Auxiliary Power Exhaust"/>
</pollutantprocessassociations>
<databaseselections>
    <databaseselection servername="" databasename="MOVES2014_early_NLEV"
description="" />
    <databaseselection servername="" databasename="MOVES2014_mylevs"
description="" />
</databaseselections>
<internalcontrolstrategies>
<internalcontrolstrategy
classname="gov.epa.otaq.moves.master.implementation.ghg.internalcontrolstrategies.ra
teofprogress.RateOfProgressStrategy"><![CDATA[
useParameters No

]]></internalcontrolstrategy>
</internalcontrolstrategies>
<inputdatabase servername="" databasename="" description="" />
<uncertaintyparameters uncertaintymodeenabled="false"
numberofrunspersimulation="0" numberofsimulations="0" />
<geographicoutputdetail description="COUNTY" />
<outputemissionsbreakdownselection>
    <modelyear selected="false" />
    <fueltype selected="true" />
    <fuelsubtype selected="false" />
    <emissionprocess selected="true" />
    <onroadoffroad selected="true" />
    <roadtype selected="true" />
    <sourceusetype selected="true" />
    <movesvehicletype selected="false" />
    <onroadscc selected="false" />
    <estimateuncertainty selected="false" numberOfIterations="2"
keepSampledData="false" keepIterations="false" />
    <sector selected="false" />
    <engtechid selected="false" />
    <hpclass selected="false" />
    <regclassid selected="false" />
</outputemissionsbreakdownselection>

```

```

<outputdatabase servername="" databasename="out_ct_2035_2017conformity_annual_20170410" description="" />
  <outputtimestep value="Month"/>
  <outputvmtdata value="true"/>
  <outputsho value="true"/>
  <outputsh value="true"/>
  <outputshp value="true"/>
  <outputshidling value="true"/>
  <outputstarts value="true"/>
  <outputpopulation value="true"/>
  <scaleinputdatabase servername="localhost" databasename="in_2035_9009_nh_2017conformity_annual20170411" description="" />
  <pmsize value="0"/>
  <outputfactors>
    <timefactors selected="true" units="Months"/>
    <distancefactors selected="true" units="Miles"/>
    <massfactors selected="true" units="U.S. Ton" energyunits="Joules"/>
  </outputfactors>
  <savedata>

    </savedata>

  <donotexecute>

    </donotexecute>

    <generatordatabase shouldsave="false" servername="" databasename="" description="" />
      <donotperformfinalaggregation selected="false"/>
      <lookuptableflags scenarioid="" truncateoutput="true" truncateactivity="true" truncatebaserates="true"/>
    </runspec>

```

## 2040 Fairfield

```
<runspec version="MOVES2014a-20151201">
    <description><![CDATA[Fairfield County (09001) for 2040.
County scale, inventory mode, 12 months (annual run), weekdays and weekends, 24
hours, all fuels (except placeholder and LPG)/source use type combinations, all road
types.
All pollutants. Caution: Need to eliminate Primary Exhaust PM2.5 Total to avoid double
counting.
CALEV and NLEV databases.
Output:
Activity: all.
Include: Fuel Type, Emission Processes, Road Type and Source Use Type
For use in 2017 Conformity.
April 2017]]></description>
<models>
    <model value="ONROAD"/>
</models>
<modelscale value="Inv"/>
<modeldomain value="SINGLE"/>
<geographicselections>
    <geographicselection type="COUNTY" key="9001" description="CONNECTICUT -
Fairfield County"/>
</geographicselections>
<timespan>
    <year key="2040"/>
    <month id="1"/>
    <month id="2"/>
    <month id="3"/>
    <month id="4"/>
    <month id="5"/>
    <month id="6"/>
    <month id="7"/>
    <month id="8"/>
    <month id="9"/>
    <month id="10"/>
    <month id="11"/>
    <month id="12"/>
    <day id="2"/>
    <day id="5"/>
    <beginhour id="1"/>
    <endhour id="24"/>
    <aggregateBy key="Hour"/>
```

```

</timespan>
<onroadvehicleselections>
    <onroadvehicleselection fueltypeid="3" fueltypedesc="Compressed Natural Gas (CNG)" sourcetypeid="42" sourcetypename="Transit Bus"/>
        <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="62" sourcetypename="Combination Long-haul Truck"/>
            <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="61" sourcetypename="Combination Short-haul Truck"/>
                <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="41" sourcetypename="Intercity Bus"/>
                    <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
                        <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="54" sourcetypename="Motor Home"/>
                            <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="21" sourcetypename="Passenger Car"/>
                                <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="31" sourcetypename="Passenger Truck"/>
                                    <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="51" sourcetypename="Refuse Truck"/>
                                        <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="43" sourcetypename="School Bus"/>
                                            <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="53" sourcetypename="Single Unit Long-haul Truck"/>
                                                <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="52" sourcetypename="Single Unit Short-haul Truck"/>
                                                    <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="42" sourcetypename="Transit Bus"/>
                                                        <onroadvehicleselection fueltypeid="9" fueltypedesc="Electricity" sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
                                                            <onroadvehicleselection fueltypeid="9" fueltypedesc="Electricity" sourcetypeid="21" sourcetypename="Passenger Car"/>
                                                                <onroadvehicleselection fueltypeid="9" fueltypedesc="Electricity" sourcetypeid="31" sourcetypename="Passenger Truck"/>
                                                                    <onroadvehicleselection fueltypeid="5" fueltypedesc="Ethanol (E-85)" sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
                                                                        <onroadvehicleselection fueltypeid="5" fueltypedesc="Ethanol (E-85)" sourcetypeid="21" sourcetypename="Passenger Car"/>
                                                                            <onroadvehicleselection fueltypeid="5" fueltypedesc="Ethanol (E-85)" sourcetypeid="31" sourcetypename="Passenger Truck"/>
                                                                                <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline" sourcetypeid="61" sourcetypename="Combination Short-haul Truck"/>
                                                                                    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"

```

```

sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="54" sourcetypename="Motor Home"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="11" sourcetypename="Motorcycle"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="21" sourcetypename="Passenger Car"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="31" sourcetypename="Passenger Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="51" sourcetypename="Refuse Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="43" sourcetypename="School Bus"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="53" sourcetypename="Single Unit Long-haul Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="52" sourcetypename="Single Unit Short-haul Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="42" sourcetypename="Transit Bus"/>
</onroadvehicleselections>
<offroadvehicleselections>
</offroadvehicleselections>
<offroadvehiclesccs>
</offroadvehiclesccs>
<roadtypes separateramps="false">
    <roadtype roadtypeid="1" roadtypename="Off-Network"
modelCombination="M1"/>
    <roadtype roadtypeid="2" roadtypename="Rural Restricted Access"
modelCombination="M1"/>
    <roadtype roadtypeid="3" roadtypename="Rural Unrestricted Access"
modelCombination="M1"/>
    <roadtype roadtypeid="4" roadtypename="Urban Restricted Access"
modelCombination="M1"/>
    <roadtype roadtypeid="5" roadtypename="Urban Unrestricted Access"
modelCombination="M1"/>
</roadtypes>
<pollutantprocessassociations>
    <pollutantprocessassociation pollutantkey="118" pollutantname="Composite -
NonECPM" processkey="1" processname="Running Exhaust"/>
    <pollutantprocessassociation pollutantkey="118" pollutantname="Composite -
NonECPM" processkey="2" processname="Start Exhaust"/>
    <pollutantprocessassociation pollutantkey="118" pollutantname="Composite -
NonECPM" processkey="90" processname="Extended Idle Exhaust"/>

```

```

<pollutantprocessassociation pollutantkey="118" pollutantname="Composite - NonECPM" processkey="91" processname="Auxiliary Power Exhaust"/>
    <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="1" processname="Running Exhaust"/>
        <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="2" processname="Start Exhaust"/>
            <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="15" processname="Crankcase Running Exhaust"/>
                <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="16" processname="Crankcase Start Exhaust"/>
                    <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="17" processname="Crankcase Extended Idle Exhaust"/>
                        <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="90" processname="Extended Idle Exhaust"/>
                            <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="91" processname="Auxiliary Power Exhaust"/>
                                <pollutantprocessassociation pollutantkey="119" pollutantname="H2O (aerosol)" processkey="1" processname="Running Exhaust"/>
                                    <pollutantprocessassociation pollutantkey="119" pollutantname="H2O (aerosol)" processkey="2" processname="Start Exhaust"/>
                                        <pollutantprocessassociation pollutantkey="119" pollutantname="H2O (aerosol)" processkey="90" processname="Extended Idle Exhaust"/>
                                            <pollutantprocessassociation pollutantkey="119" pollutantname="H2O (aerosol)" processkey="91" processname="Auxiliary Power Exhaust"/>
                                                <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="1" processname="Running Exhaust"/>
                                                    <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="2" processname="Start Exhaust"/>
                                                        <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="15" processname="Crankcase Running Exhaust"/>
                                                            <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="16" processname="Crankcase Start Exhaust"/>
                                                                <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="17" processname="Crankcase Extended Idle Exhaust"/>
                                                                    <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="90" processname="Extended Idle Exhaust"/>
                                                                        <pollutantprocessassociation pollutantkey="111" pollutantname="Organic Carbon" processkey="91" processname="Auxiliary Power Exhaust"/>
                                <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of Nitrogen (NOx)" processkey="1" processname="Running Exhaust"/>
                            <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of Nitrogen (NOx)" processkey="2" processname="Start Exhaust"/>
                            <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of

```

Nitrogen (NOx)" processkey="15" processname="Crankcase Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
 Nitrogen (NOx)" processkey="16" processname="Crankcase Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
 Nitrogen (NOx)" processkey="17" processname="Crankcase Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
 Nitrogen (NOx)" processkey="90" processname="Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="3" pollutantname="Oxides of  
 Nitrogen (NOx)" processkey="91" processname="Auxiliary Power Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="1" processname="Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="2" processname="Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="15" processname="Crankcase Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="16" processname="Crankcase Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="17" processname="Crankcase Extended Idle  
 Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="90" processname="Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="110" pollutantname="Primary  
 Exhaust PM2.5 - Total" processkey="91" processname="Auxiliary Power Exhaust"/>  
 <pollutantprocessassociation pollutantkey="116" pollutantname="Primary  
 PM2.5 - Brakewear Particulate" processkey="9" processname="Brakewear"/>  
 <pollutantprocessassociation pollutantkey="117" pollutantname="Primary  
 PM2.5 - Tirewear Particulate" processkey="10" processname="Tirewear"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="1" processname="Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="2" processname="Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="15" processname="Crankcase Running Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="16" processname="Crankcase Start Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="17" processname="Crankcase Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="90" processname="Extended Idle Exhaust"/>  
 <pollutantprocessassociation pollutantkey="115" pollutantname="Sulfate  
 Particulate" processkey="91" processname="Auxiliary Power Exhaust"/>  
 <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy

```

Consumption" processkey="1" processname="Running Exhaust"/>
    <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy
Consumption" processkey="2" processname="Start Exhaust"/>
    <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy
Consumption" processkey="90" processname="Extended Idle Exhaust"/>
    <pollutantprocessassociation pollutantkey="91" pollutantname="Total Energy
Consumption" processkey="91" processname="Auxiliary Power Exhaust"/>
</pollutantprocessassociations>
<databaseselections>
    <databaseselection servername="" databasename="MOVES2014_early_NLEV"
description="" />
    <databaseselection servername="" databasename="MOVES2014_mylevs"
description="" />
</databaseselections>
<internalcontrolstrategies>
<internalcontrolstrategy
classname="gov.epa.otaq.moves.master.implementation.ghg.internalcontrolstrategies.ra
teofprogress.RateOfProgressStrategy"><![CDATA[
useParameters No

]]></internalcontrolstrategy>
</internalcontrolstrategies>
<inputdatabase servername="" databasename="" description="" />
<uncertaintyparameters uncertaintymodeenabled="false"
numberofrunspersimulation="0" numberofsimulations="0" />
<geographicoutputdetail description="COUNTY" />
<outputemissionsbreakdownselection>
    <modelyear selected="false" />
    <fueltype selected="true" />
    <fuelsubtype selected="false" />
    <emissionprocess selected="true" />
    <onroadoffroad selected="true" />
    <roadtype selected="true" />
    <sourceusetype selected="true" />
    <movesvehicletype selected="false" />
    <onroadscc selected="false" />
    <estimateuncertainty selected="false" numberOfIterations="2"
keepSampledData="false" keepIterations="false" />
    <sector selected="false" />
    <engtechid selected="false" />
    <hpclass selected="false" />
    <regclassid selected="false" />
</outputemissionsbreakdownselection>

```

```

<outputdatabase servername="" databasename="out_ct_2040_2017conformity_annual_20170410" description="" />
  <outputtimestep value="Month"/>
  <outputvmtdata value="true"/>
  <outputsho value="true"/>
  <outputsh value="true"/>
  <outputshp value="true"/>
  <outputshidling value="true"/>
  <outputstarts value="true"/>
  <outputpopulation value="true"/>
  <scaleinputdatabase servername="localhost" databasename="in_2040_9001_ff_2017conformity_annual20170410" description="" />
  <pmsize value="0"/>
  <outputfactors>
    <timefactors selected="true" units="Months"/>
    <distancefactors selected="true" units="Miles"/>
    <massfactors selected="true" units="U.S. Ton" energyunits="Joules"/>
  </outputfactors>
  <savedata>

  </savedata>

  <donotexecute>

  </donotexecute>

  <generatordatabase shouldsave="false" servername="" databasename="" description="" />
    <donotperformfinalaggregation selected="false"/>
    <lookuptableflags scenarioid="" truncateoutput="true" truncateactivity="true" truncatetablerates="true"/>
  </runspec>

```

## 2040 New Haven

```
<runspec version="MOVES2014a-20151201">
    <description><![CDATA[New Haven County (09009) for 2040.
County scale, inventory mode, 12 months (annual run), weekdays and weekends, 24
hours, all fuels (except placeholder and LPG)/source use type combinations, all road
types.
All pollutants. Caution: Need to eliminate Primary Exhaust PM2.5 Total to avoid double
counting.
CALEV and NLEV databases.
Output:
Activity: all.
Include: Fuel Type, Emission Processes, Road Type and Source Use Type
For use in 2017 Conformity.
April 2017]]></description>
<models>
    <model value="ONROAD"/>
</models>
<modelscale value="Inv"/>
<modeldomain value="SINGLE"/>
<geographicselections>
    <geographicselection type="COUNTY" key="9009" description="CONNECTICUT -
New Haven County"/>
</geographicselections>
<timespan>
    <year key="2040"/>
    <month id="1"/>
    <month id="2"/>
    <month id="3"/>
    <month id="4"/>
    <month id="5"/>
    <month id="6"/>
    <month id="7"/>
    <month id="8"/>
    <month id="9"/>
    <month id="10"/>
    <month id="11"/>
    <month id="12"/>
    <day id="2"/>
    <day id="5"/>
    <beginhour id="1"/>
    <endhour id="24"/>
    <aggregateBy key="Hour"/>
```

```

</timespan>
<onroadvehicleselections>
    <onroadvehicleselection fueltypeid="3" fueltypedesc="Compressed Natural Gas (CNG)" sourcetypeid="42" sourcetypename="Transit Bus"/>
        <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="62" sourcetypename="Combination Long-haul Truck"/>
            <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="61" sourcetypename="Combination Short-haul Truck"/>
                <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="41" sourcetypename="Intercity Bus"/>
                    <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
                        <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="54" sourcetypename="Motor Home"/>
                            <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="21" sourcetypename="Passenger Car"/>
                                <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="31" sourcetypename="Passenger Truck"/>
                                    <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="51" sourcetypename="Refuse Truck"/>
                                        <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="43" sourcetypename="School Bus"/>
                                            <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="53" sourcetypename="Single Unit Long-haul Truck"/>
                                                <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="52" sourcetypename="Single Unit Short-haul Truck"/>
                                                    <onroadvehicleselection fueltypeid="2" fueltypedesc="Diesel Fuel" sourcetypeid="42" sourcetypename="Transit Bus"/>
                                                        <onroadvehicleselection fueltypeid="9" fueltypedesc="Electricity" sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
                                                            <onroadvehicleselection fueltypeid="9" fueltypedesc="Electricity" sourcetypeid="21" sourcetypename="Passenger Car"/>
                                                                <onroadvehicleselection fueltypeid="9" fueltypedesc="Electricity" sourcetypeid="31" sourcetypename="Passenger Truck"/>
                                                                    <onroadvehicleselection fueltypeid="5" fueltypedesc="Ethanol (E-85)" sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
                                                                        <onroadvehicleselection fueltypeid="5" fueltypedesc="Ethanol (E-85)" sourcetypeid="21" sourcetypename="Passenger Car"/>
                                                                            <onroadvehicleselection fueltypeid="5" fueltypedesc="Ethanol (E-85)" sourcetypeid="31" sourcetypename="Passenger Truck"/>
                                                                                <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline" sourcetypeid="61" sourcetypename="Combination Short-haul Truck"/>
                                                                                    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"

```

```

sourcetypeid="32" sourcetypename="Light Commercial Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="54" sourcetypename="Motor Home"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="11" sourcetypename="Motorcycle"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="21" sourcetypename="Passenger Car"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="31" sourcetypename="Passenger Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="51" sourcetypename="Refuse Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="43" sourcetypename="School Bus"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="53" sourcetypename="Single Unit Long-haul Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="52" sourcetypename="Single Unit Short-haul Truck"/>
    <onroadvehicleselection fueltypeid="1" fueltypedesc="Gasoline"
sourcetypeid="42" sourcetypename="Transit Bus"/>
</onroadvehicleselections>
<offroadvehicleselections>
</offroadvehicleselections>
<offroadvehiclesccs>
</offroadvehiclesccs>
<roadtypes separateramps="false">
    <roadtype roadtypeid="1" roadtypename="Off-Network"
modelCombination="M1"/>
    <roadtype roadtypeid="2" roadtypename="Rural Restricted Access"
modelCombination="M1"/>
    <roadtype roadtypeid="3" roadtypename="Rural Unrestricted Access"
modelCombination="M1"/>
    <roadtype roadtypeid="4" roadtypename="Urban Restricted Access"
modelCombination="M1"/>
    <roadtype roadtypeid="5" roadtypename="Urban Unrestricted Access"
modelCombination="M1"/>
</roadtypes>
<pollutantprocessassociations>
    <pollutantprocessassociation pollutantkey="118" pollutantname="Composite -
NonECPM" processkey="1" processname="Running Exhaust"/>
    <pollutantprocessassociation pollutantkey="118" pollutantname="Composite -
NonECPM" processkey="2" processname="Start Exhaust"/>
    <pollutantprocessassociation pollutantkey="118" pollutantname="Composite -
NonECPM" processkey="90" processname="Extended Idle Exhaust"/>

```

```

<pollutantprocessassociation pollutantkey="118" pollutantname="Composite - NonECPM" processkey="91" processname="Auxiliary Power Exhaust"/>
    <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="1" processname="Running Exhaust"/>
        <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="2" processname="Start Exhaust"/>
            <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="15" processname="Crankcase Running Exhaust"/>
                <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="16" processname="Crankcase Start Exhaust"/>
                    <pollutantprocessassociation pollutantkey="112" pollutantname="Elemental Carbon" processkey="17" processname="Crankcase Extended Idle Exhaust"/>
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## **APPENDIX D**

### **ACRONYMS**

## Acronyms

<b>Acronym</b>	<b>Meaning</b>
CAAA	Clean Air Act Amendments (1990)
CO	Carbon Monoxide
COG	Council of Government
CTDOT	Connecticut Department of Transportation
CTDEEP	Connecticut Department of Environmental Protection
EPA	U.S. Environmental Protection Agency
FSD	Final Scope Development (Now PD)
ISTEA	Intermodal Surface Transportation Efficiency Act
MAP-21	Moving Ahead for Progress in the 21 <sup>st</sup> Century Act
MOVES	Mobile Vehicle Emission Simulator
MPO	Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
NH <sub>3</sub>	Ammonia
NOx	Nitrogen Oxides
PD	Preliminary Design (Formerly FSD)
PDWP	Project Development Work Program
PM <sub>2.5</sub>	Fine Particulate Matter
PMT	Person Miles Traveled
RA	Regional Administer
ROP	Rate of Progress
RTP	Regional Transportation Plan (generally refers to Regional Transportation Plan Update)
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SD	Study and Development
SIP	State Implementation Plan
SO <sub>x</sub>	Sulfur Oxides
STIP	Statewide Transportation Improvement Program
TCM	Transportation Control Measure
TIP	Transportation Improvement Program
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound