Appendix C

2011 Base Year Inventory for RFP:

Revisions Made to 2011 PEI

Appendix C

This appendix provides supplemental information to the discussion in Section 4.1 regarding changes made to CT DEEP's 2011 Periodic Emissions Inventory (PEI). The revisions were made to create an updated 2011 Base Year Inventory for use in the Reasonable Further Progress (RFP) demonstration.

Subsequent to the preparation of the 2011 PEI, updated emission estimation techniques and data became available for the on-road and non-road mobile source sectors. Updates include the use of MOVES2014a, a major revision to EPA's model that now addresses emissions from both on-road vehicles and most non-road equipment, associated revisions to MOVES2014a inputs that more accurately reflect Connecticut's motor vehicle emission inspection and maintenance (I&M) program, updated traffic data provided by the Connecticut Department of Transportation (CT DOT), and revised meteorological inputs that are more representative of the high ozone events that resulted in Connecticut's nonattainment designation for the 2008 ozone NAAQS. In addition, stationary source NOx emission offsets are included in the inventory to ensure they are accounted for in the RFP demonstration. Finally, revisions were made to PEI emissions for aircraft and airport support equipment (part of the non-road mobile sector in the 2011 PEI) and to landfill emissions (part of the area source sector in the 2011 PEI) to correct for database summation errors included in the submitted PEI. In addition, CT DEEP has replaced the PEI submitted rail values with the NEI v2 rail values, specific SCCs and summer day values are in table C-12.

MOVES2014a Input Summary for On-Road Vehicles

For on-road sources, the MOVES2014a (movesdb20151028) model was run in inventory mode with the resulting emissions calculated for each Connecticut county for 2011, 2017 and 2020.

Fuel Formulation and Fuel Supply

The MOVES2014a fuel formulation table defines the properties (such as RVP, sulfur level, ethanol volume, etc.) of each fuel and the fuel supply table identifies the fuel formulations used in a region and each formulation's respective market share.

The MOVES2014a default values for fuel formulation and fuel supply were used because Connecticut does not have a full local fuel property study as recommended in the *MOVES2014a Technical Guidance Document,* Section 4.9.1: "EPA strongly recommends using the default fuel properties for a region unless a full local fuel property study exists."

The change from county level (MOVES2010b) to regional level (MOVES2014a) for these inputs better accounts for fuel production and distribution networks, natural borders, and regional/state/local variations in fuel policy and increases confidence that the default fuels in a particular region represent the actual fuels used in that region.

Fuel Usage Fraction

The fuel usage fraction table allows the user to change the frequency at which E-85 capable on-road vehicles, also known as flex-fuel vehicles, use E-85 fuel versus conventional fuel, when appropriate.

According to the USDOE Alternative Fueling Station Locator[1], there are only three public E-85 stations located in Connecticut: two in New London County and one in Fairfield County. It is safe to conservatively assume that E-85 usage in E-85 passenger vehicles is minimal at this time.

Because of the lack of fueling stations within the state, Connecticut has conservatively assumed that E-85 capable vehicles (SourceBinFuelTypeID=5) are using gasoline (fuelSupplyFuelTypeID=1) 100% of the time and adjusted the default MOVES input appropriately.

AVFT

The AVFT (fuel type and vehicle technology) table allows users to modify the fraction of on-road vehicles capable of using different fuels and technologies in each model year. Specifically, the AVFT table allows users to define the split between diesel, gasoline, E-85, CNG, and electricity, for each vehicle type and model year.

This table should only be modified if local data is available. If local data is used for present years, that information can be assumed for future years. In most cases, the default VMT split between diesel, gasoline, CNG, and E-85 should be used. There is also a special case for transit buses where the input should be adjusted to reflect the usage of CNG transit buses. If there are no CNG buses in the fleet then the input should be adjusted. Because some transit buses in Connecticut are powered by CNG, we did not adjust the input for transit buses.

MOVES2014a default data was used for this input and the same defaults were used for each county.

Source Type Population

Source type (on-road vehicle type) population is used by MOVES to calculate start and evaporative emissions. Start and evaporative emissions depend more on how many vehicles are parked and started than on how many miles they are driven. In MOVES, start and resting evaporative emissions are related to the population of vehicles in an area.

Population counts for a base year of 2011 for all source types were developed from a complete analysis of 2011 Connecticut motor vehicle registration data. The VMT based population estimates for source types 51, 52, 53, 54, 61 and 62 used an approach outlined in *MOVES2014a Technical Guidance Document,* section 4.3 and a national run for all Connecticut counties to obtain a ratio of MOVES default population to VMT by source type. That ratio was multiplied by local county VMT for each source type to obtain an estimate of local population based on local VMT. The registration population data was used when the VMT based estimate was lower than what was actually registered in the state. This accounts for inaccuracies in the VMT based method, for home-based lodging of interstate trucks and for truck populations accumulating lower than expected VMT.

Future year populations were calculated based on a ratio of Connecticut specific base and future year MOVES HPMS Vehicle Type VMT to obtain a growth factor for the HPMS Vehicle Type. Distributions of source Types within an HPMS Vehicle Type were assumed to remain the same as established in the base year. If there was negative VMT growth between the 2011 base year and

[1] See: http://www.afdc.energy.gov/locator/stations/.

2017, the vehicle population counts for 2017 were conservatively set to the 2011 base year values instead of having population counts decrease due to VMT decreases.

Source Type Age Distribution

Source type age distribution input defines the age distribution of the local on-road vehicle fleet which can vary greatly in different areas of the country. MOVES covers a 31-year range of vehicle ages, with vehicles 30 years and older grouped together. MOVES allows the user to specify the fraction of vehicles in each of 30 vehicle ages for each of the 13 source types in the model.

Local data was developed from an analysis of Connecticut's 2011 motor vehicle registration data, which was completed in 2012. As allowed by *MOVES2014a Technical Guidance Document,* Section 4.4, MOVES national default age distributions were used in cases where locally registered vehicle data was not necessarily representative. Table C-1 summarizes where local data was used and where MOVES2014a default data was used:

Table C-1: Use of Local and Default Age Distribution Data

Local Data		**MOVES2014a Default Data**	
11	Motorcycle	51	Refuse Truck
21	Passenger Car	52	Single Unit Short Haul Truck
31	Passenger Truck	53	Single Unit Long Haul Truck
32	Light Commercial Truck	54	Motor Home
41	Intercity Bus	61	Combination Short Haul Truck
42	Transit Bus	62	Combination Long Haul Truck
43	School Bus		

For future years, the Connecticut specific age distribution developed for 2011 was carried over without modification instead of using the new EPA "Age Distribution Projection Tool for MOVES2014". This is allowed by M*OVES2014a Technical Guidance Document,* Section 4.4.

I/M Coverage

This input reflects the characteristics and SIP requirements of Connecticut's Inspection and Maintenance (I/M) program for on-road vehicles. MOVES only calculates I/M program benefits for gasoline vehicles and this discussion is limited to gasoline vehicles.

Connecticut's I/M program has both a grace period (4 years) and an exemption age (25 years). The imcoverage table inputs "begModelYearID" and "endModelYearID" were adjusted to reflect these factors and a plus one is included in both the grace period and exemption age calculations to account for the model year preceding the calendar year. Connecticut's I/M program also specifies an inspection frequency of every two years.

I/M compliance and waiver rates were determined by the values in Connecticut's SIP. The SIP compliance rate is 96% and the waiver rate is 1%. These values were used along with the regulatory class coverage adjustment factors provided in Appendix A of the *MOVES2014a Technical Guidance Document* to calculate a compliance factor for each I/M program type. [Compliance Factor = Compliance Rate * (1 - Waiver Rate) * Reg Class Adj.] Connecticut also tests gasoline vehicles up to 10,000 lbs.

Connecticut's I/M program applies across the state so all counties used the same I/M coverage inputs.

Passenger Cars (sourceTypeID - 21)

For 1995 & Older: Regulatory class adjustment factor is 100% for ASM2525 (Test Standard ID: 24) and gas cap test (Test Standard ID: 41) since all cars in this source type are under 8,500 lbs. [Calculation: (0.96)*(1-0.01)*(1) = 0.9504]

For 1996 & newer: Regulatory class adjustment factor is 100% for OBD testing (Test Standard IDs: 51, 43) since all cars in this source type are under 8,500 lbs. [Calculation: (0.96)*(1-0.01)*(1) = 0.9504]

Passenger Trucks (sourceTypeID - 31)

For 1995 & Older: Regulatory Class Adjustment for ASM2525 (Test Standard ID: 24) is 98% to cover the vehicles in this source type under 8,500 lbs. [Calculation: (0.96)*(1-0.01)*(0.98) = 0.9314]

For 1995 & Older: Because vehicles in this source type over 8,500 lbs get a PCTSI test (Test Standard ID: 12), and MOVES can't assign two test standards to one pollutant/sourcetype group, this part of the I/M program is not covered in these inputs. They could be included if a separate MOVES run was conducted and subtracting the difference. The emissions impact of not including this small portion of the I/M program in the MOVES input is very minimal.

For 1995 & Older: Regulatory Class Adjustment for Gas Cap Test (Test Standard ID: 41) is 100% since all vehicles in this source type up to 10,000 lbs get a gas cap test. [Calculation: (0.96)*(1-0.01)*(1) = 0.9504]

For 1996 & newer: Regulatory Class Adjustment is 100% since all vehicles in this source type up to 10,000 lbs get an OBD test (51, 43). [Calculation: (0.96)*(1-0.01)*(1) = 0.9504]

Light Commercial Trucks (sourceTypeID - 32)

For 1995 & Older: Regulatory Class Adjustment for ASM2525 (Test Standard ID: 24) is 92% to cover the vehicles in this source type under 8,500 lbs. [Calculation: (0.96)*(1-0.01)*(0.92) = 0.8744]

For 1995 & Older: Because vehicles in this source type over 8,500 lbs get a PCTSI test (Test Standard ID: 12), and MOVES can't assign two test standards to one pollutant/sourcetype group, this part of the I/M program is not covered in these inputs. They could be included if a separate MOVES run was conducted and subtracting the difference. The emissions impact of not including this small portion of the I/M program in the MOVES input is very minimal.

For 1995 & Older: Regulatory Class Adjustment for Gas Cap Test (Test Standard ID: 41) is 100% since all vehicles in this source type up to 10,000 lbs get a gas cap test. [Calculation: (0.96)*(1-0.01)*(1) =0 .9504]

For 1996 & newer: Regulatory Class Adjustment is 100% since all vehicles in this source type up to 10,000 lbs get an OBD test (51, 43). [Calculation: (0.96)*(1-0.01)*(1) =0 .9504]

The improved Connecticut specific I/M program input developed for MOVES2014a includes the entire CT gasoline I/M testing program with the exception of 1995 and older passenger and light commercial trucks that are over 8,500 lbs, which weren't included due to limitations of MOVES and the minor impact on emissions. In contrast, previous I/M inputs developed for MOVES2010b did not account for any reductions from gasoline vehicles over 8,500 lbs.

Meteorological Data

Local temperature and humidity data are required inputs for SIP and regional conformity analyses with MOVES. Ambient temperature is a key factor in estimating emission rates for on-road vehicles with substantial effects on most pollutant processes. Relative humidity is also important for estimating NOx emissions from motor vehicles.

Temperature inputs for a typical high ozone day for Connecticut's nonattainment areas were calculated by first determining the ten highest 8-hr ozone concentrations that occurred in the entire state on unique days in the months of June through August during the three year period (2008-2010) preceding the base year (2011). These values were obtained from the Connecticut Department of Environmental Protection Annual Summary Information for Ozone Website as shown in Table C-2:

Table C-2: Ten Highest Ozone Concentrations on Unique Days, 2008-2010

	Site	8-hour Ozone Concentration (ppb)
6/10/2008	Greenwich	105
7/19/2008	Madison	105
7/18/2008	Greenwich	102
6/28/2008	Danbury	93
7/16/2010	Danbury	91
6/7/2008	Middletown	91
6/14/2008	Westport	89
7/28/2010	Stafford	87
7/3/2008	Stafford	87
8/17/2009	Westport	85

For each of the ten highest ozone days, Table C-3 lists the maximum and minimum temperatures that occurred each day, as obtained from the National Oceanic and Atmospheric Administration (NOAA) Local Climatological Data Publication Website for Bradley international Airport in Windsor Locks, CT for the Greater Hartford ozone nonattainment area and Igor I. Sikorsky Memorial Airport in Bridgeport, CT for the CT portion of the NY-NJ-CT ozone nonattainment area.

Table C-3: Maximum and Minimum Temperatures for Ten Highest Ozone Days

	Greater CT		CT Portion of NY-NJ-CT	
	Bradley Airport		Sikorsky Airport	
	Max Temp (°F)	Min Temp (°F)	Max Temp (°F)	Min Temp (°F)
6/10/2008	98	69	96	70
7/19/2008	94	67	92	77
7/18/2008	93	65	92	72
6/28/2008	90	65	86	67
7/16/2010	93	70	87	73
6/7/2008	93	60	86	61
6/14/2008	88	58	84	65
7/28/2010	90	62	87	69
7/3/2008	90	63	87	67
8/17/2009	94	69	91	73
AVERAGE	**92.3**	**64.8**	**88.8**	**69.4**

The calculated average maximum and minimum temperatures for each nonattainment area were then input into EPA's Meteorological Data Converter MOBILE6 (XLS) to produce a 24 hour temperature profile for a typical high ozone day in CT for each nonattainment area.

Humidity inputs for a typical high ozone day for Connecticut's nonattainment areas were calculated by first determining the hour by hour humidity profile for each of the ten highest 8-hr ozone days listed in Table C-2. Hour by Hour humidity values were obtained from the National Oceanic and Atmospheric Administration (NOAA) Quality Controlled Local Climatological Data Website for Bradley international Airport in Windsor Locks, CT for the Greater Connecticut ozone nonattainment area and Igor I. Sikorsky Memorial Airport in Bridgeport, CT for the CT portion of the NY-NJ-CT ozone nonattainment area. An average humidity value was then calculated for each hour of the day to produce a 24-hour humidity profile for a typical high ozone day in CT for each nonattainment area. Results can be found in Tables C-4 and C-5, respectively.

These temperature and humidity profiles were input to MOVES to obtain summer day emission estimates for each Connecticut county and non-attainment area.

Once the motor vehicle budgets are approved, any temperature assumptions used for regional conformity analyses must also be consistent with the temperature assumptions used to establish the motor vehicle emissions budgets in the SIP as required in the transportation conformity rule, 40 CFR §93.122(a)(6).

Table C-4: Hour by Hour Humidity Values for Ten Highest Ozone Days at Bradley Airport

Hour	6/10/08	7/19/08	7/18/08	6/28/08	7/16/10	6/7/08	6/14/08	7/28/10	7/3/08	8/17/09	AVG
1	87	84	81	90	90	93	73	78	76	90	**84.2**
2	87	81	87	87	93	93	75	84	81	93	**86.1**
3	90	87	84	90	90	93	78	90	81	93	**87.6**
4	93	84	84	90	90	93	84	87	81	93	**87.9**
5	93	87	87	90	93	93	87	87	81	93	**89.1**
6	87	84	81	84	90	93	78	84	68	93	**84.2**
7	79	74	71	79	87	93	73	71	61	90	**77.8**
8	69	71	69	71	79	90	68	62	58	79	**71.6**
9	59	69	60	69	72	87	62	58	56	67	**65.9**
10	52	63	57	61	70	76	58	53	47	61	**59.8**
11	46	57	53	57	63	67	56	48	45	57	**54.9**
12	42	50	50	51	57	63	53	46	40	52	**50.4**
13	35	44	47	47	50	59	51	47	36	47	**46.3**
14	33	38	44	45	49	56	48	50	39	35	**43.7**
15	33	37	44	45	56	50	76	47	38	32	**45.8**
16	35	44	44	48	59	50	85	47	43	34	**48.9**
17	40	46	48	61	61	49	76	55	81	37	**55.4**
18	45	48	59	57	65	59	79	61	79	44	**59.6**
19	50	57	60	63	84	61	84	67	81	65	**67.2**
20	53	58	60	67	87	67	87	72	79	74	**70.4**
21	57	67	58	71	87	63	84	77	87	79	**73**
22	64	74	71	74	87	77	87	79	90	79	**78.2**
23	84	76	74	76	85	74	90	82	87	85	**81.3**
24	87	82	76	82	85	82	90	82	84	87	**83.7**

Table C-5: Hour by Hour Humidity Values for Ten Highest Ozone Days at Sikorsky Airport

Hour	6/10/08	7/19/08	7/18/08	6/28/08	7/16/10	6/7/08	6/14/08	7/28/10	7/3/08	8/17/09	AVG
1	76	79	79	81	87	84	76	79	71	85	**79.7**
2	76	79	79	81	90	87	81	76	71	85	**80.5**
3	79	79	76	84	87	87	78	79	68	90	**80.7**
4	81	79	82	84	90	90	81	76	73	90	**82.6**
5	81	85	79	87	90	90	81	76	76	90	**83.5**
6	79	79	76	87	90	93	78	71	71	90	**81.4**
7	69	74	71	84	87	93	78	69	66	87	**77.8**
8	67	69	69	76	85	81	71	67	64	82	**73.1**
9	59	69	67	71	77	81	64	60	62	77	**68.7**
10	57	65	62	67	77	76	58	58	58	79	**65.7**
11	50	57	58	60	67	69	60	55	52	72	**60**
12	44	50	53	53	70	64	53	55	49	63	**55.4**
13	35	52	55	55	72	60	53	57	43	59	**54.1**
14	45	44	47	63	70	58	62	55	46	52	**54.2**
15	42	47	44	67	70	63	65	63	46	52	**55.9**
16	44	54	44	65	68	71	69	65	49	45	**57.4**
17	48	59	44	60	67	59	69	69	53	55	**58.3**
18	48	59	61	62	70	65	62	72	52	65	**61.6**
19	51	67	63	67	77	67	67	74	58	67	**65.8**
20	62	74	70	71	82	69	84	79	64	74	**72.9**
21	62	79	72	76	79	69	84	82	64	77	**74.4**
22	74	79	74	76	79	71	87	82	66	77	**76.5**
23	71	82	79	82	79	71	87	85	74	85	**79.5**
24	79	82	79	87	85	71	82	85	74	85	**80.9**

Hotelling Inputs

The hotelling inputs are used to import total hotelling hours for long-haul combination trucks (source type = 62) by hour of day, day type, month, and vehicle model year.

The hotelling hours input was based off hotelling data developed by EPA for the NEI 2011 version 2. This data was deemed to be more representative than the default hotelling hours in MOVES2014a for Connecticut. MOVES2014a default hotelling hours data was calculated only for rural restricted roadways in each county. In Connecticut, for example, Fairfield County has no rural restricted roads and MOVES2014a defaults would show no hotelling for this county when in fact there is hotelling in this county. The EPA NEI 2011 version 2 values take into account both rural and urban restricted roads to calculate hotelling hours and results in a much more representative hotelling hours input for Connecticut. This is the best available data source for this input at this time.

The hotelling hours input was adjusted for future years by taking the ratio of HPMSVtypeVMT for ID=60 (from NEI 2011 version 2) to the local HPMSVtypeVMT for the future year and adjusting each county's hotelling hours to account for the increases or decreases in VMT.

The hotelling activity distribution input was not changed from MOVES2014a defaults. This input defines the fraction of hotelling hours that are in each of the hotelling modes by model year. The hotelling modes are: Extended Idle, Diesel Auxiliary Power (APU), Battery Power, and Engine-Off.

Vehicle Type VMT

The HPMS Vehicle Type VMT input represents annual vehicle-miles of travel in each Connecticut county for each of the five on-road vehicle types. The vehicle types are consistent with those used in the Highway Performance Monitoring System (HPMS).

The month, day and hour VMT Fraction inputs represent the fraction of total annual VMT that occurs in a given month, the fraction of total monthly VMT that occurs on weekdays (dayID = 5) versus weekends (dayID = 2), and the fraction of total daily VMT that occurs in a given hour, respectively.

These inputs contain a combination of multiple data sources including default VMT mixes, locally collected VMT mixes, and modeled VMT figures developed using CT DOT's PERson FORecasting Model (PERFORM). The VMT mix by HPMS road type and MOVES vehicle type is created utilizing the process outlined below in the Road Type Distribution description. County level VMT totals by HPMS road type are calculated with CT DOT's PERFORM statewide travel demand model. Please note that these VMT totals are based on HPMS VMT factors that have been derived from HPMS VMT figures categorized by Urban Area. Two different sets of HPMS VMT factors were utilized in the PERFORM from 2010 and 2013. The MOVES run for 2011 is factored to 2010 HPMS data while the runs for 2017 and 2020 are factored to 2013 HPMS data. This may cause the 2011 to 2017 annual change to differ from that of the 2017 to 2020 time period as they are not derived from the same base data. The VMT mix, County VMT by road type, and the locally collected fraction of VMT by hour is then input into EPA's MOVES VMT converter to calculate and format County level daily VMT by MOVES vehicle types (HPMSvType) and a VMT fraction by source type, road type, day type, and hour of the day. The daily VMT figures are then input into EPA's MOVES Annual Average Daily

VMT converter, which utilizes PERFORM calculated seasonal VMT factors as well as default weekend day adjustment factors to develop County level annual VMT totals by MOVES vehicle types (HPMSvType).

Average Speed Distribution

This input represents the distribution of vehicle-hours traveled among 16 speed bins and MOVES requires this information for every combination of on-road vehicle source type, road type, and hour of the day. It is also separated seasonally to allow for summer, winter, and annual average adjustment factors.

These inputs are generated starting with CT DOT's PERFORM using average speed by functional classification and the local fraction of VMT by hour of the day. The resultant data sets consist of a matrix of 14 speed bins by hour of the day based on the MOBILE6.2 formatted speed distribution needs. This is then input into EPA's average speed converter to expand the MOBILE6.2 speed bin 14 to MOVES speed bins 14, 15, and 16.

Road Type Distribution

Road type distribution represents the percent of on-road VMT on each of five road types used in MOVES. These road types are off-network, rural restricted access, rural unrestricted access, urban restricted access, and urban unrestricted access. MOVES requires this distribution for each vehicle source type.

This input is created by utilizing a statewide EPA default VMT mix of VMT fraction by the MOVES vehicle types (vType16) and locally collected statewide HPMS vehicle mix containing the fraction of the CT DOT vehicle type counts on each roadway type by functional classification. CT DOT and CT DEEP created a VMT pre-processor that would reconcile the two VMT mixes by properly mapping the 13 CT DOT vehicle types to the 16 MOVES vehicle types. The resultant VMT mix of HPMS road type by MOVES vehicle type fraction is then input into EPA's MOVES VMT converter to calculate and format VMT by source type and road type for input into MOVES.

Ramp Fraction

Ramp fraction indicates the percent of on-road vehicle-hours traveled (VHT) that occurs on ramps for rural restricted access roadways (road type = 2) and urban restricted access roadways (road type = 4).

These inputs are generated starting with CT DOT's PERFORM using forecasted VMT figures by roadway type. The county level expressway and ramp VMT are divided into urban and rural designations and input into a MOVES ramp fraction pre-processor along with average speeds for urban and rural expressways and ramps. This pre-processor is designed by CT DOT to calculate the percentage of urban and rural expressway Vehicle Hours of Travel (VHT) that occurs on ramps within each county.

LEV and NLEV Databases

EPA has provided two databases for MOVES to be used in states other than California that adopted California Low Emission Vehicle (LEV) standards, and states in the Ozone Transport Commission (OTC) that received early implementation of NLEV standards.

The National Low Emission Vehicle (NLEV) Program was the result of an agreement between EPA, Ozone Transport Commission (OTC) states, and the auto manufacturers to introduce new emission standards in the OTC states beginning with the 1999 model year and in the rest of the country beginning with the 2001 model year. The default MOVES database does not include the effects of this early program before the 2001 national implementation. Because Connecticut is an OTC state and adopted the early NLEV program, this database was imported to model the effects of the program in 1999 and 2000 in CT before the national program took effect in 2001.

EPA has also created a separate input database for those states that have adopted the California LEV program regulations. The effects of these LEV standards are not included in the default MOVES emissions database. Because states adopted the LEV standards at different points in time, using the full EPA provided LEV database may not be appropriate. Connecticut implemented the California LEV standards in 2008. As such, the EPA provided database was modified in in accordance with the EPA document *Instructions for Using LEV and NLEV Inputs for MOVES2014* to create a Connecticut specific input.

MOVES2014a Input Summary for Non-Road Equipment

The MOVES2014a model, which incorporates the algorithms of EPA's NONROAD2008 model, was also used to determine non-road emissions for 2011 and 2017 for all but the MAR categories (commercial **M**arine vessels, **A**ircraft/support equipment, and **R**ail locomotives). Connecticut used EPA's[2] 2011 and 2017 emissions estimates for the MAR categories.

Fuel Inputs

Default MOVES2014a fuel inputs were used for the NONROAD2008 runs as the change from county level (MOVES2010b) to regional level (MOVES2014a) for fuel formulation better accounts for fuel production and distribution networks, natural borders, and regional/state/local variations in fuel policy and increase confidence that the default fuels in a particular region represent the actual fuels used in that region.

Meteorological Data

The same Connecticut specific meteorological inputs as described previously in this appendix for the on-road MOVES runs, were also used in the NONROAD2008 runs.

NONROAD2008 Base Files

The only modifications made to the NONROAD2008 base tables via the NONROAD Data Importer was the modification of pleasure craft equipment population in the "nrbaseyearequippopulation" table. The modification is based on the pleasure craft population updates performed at the end of the MARAMA 2007 Inventory Development project.[3]

Connecticut believes that the 2011 and 2017 population inputs are slightly conservative (i.e., overestimated) based on actual registration trends in the state. Connecticut will look into updating these inputs in the future based on Connecticut's actual pleasure craft growth rate.

The pleasure craft population inputs are summarized in Table C-6.

[2] EPA's Version 6.2 modeling platform is documented at: https://www.epa.gov/air-emissions-modeling/2011-version-62-platform.

[3] Technical Support Document for the Development of the 2025 Emission Inventory for PM Nonattainment Counties in the MANE-VU Region Version 3.3 Revision 2.1 Initial report and Revision 1 - January 23, 2012

Table C-6: Pleasure Craft Population Input Summary

sourceTypeID	2011 population	2017 population	2020 population
2113	1455.6	1519.4	1625.7
2114	5429	5666.9	6063.5
2115	8177	8535.3	9132.6
2116	1818.1	1897.8	2030.6
2117	3580.8	3737.7	3999.3
2118	6858.4	7159	7659.9
2119	5320.4	5553.6	5942.2
2120	8898.5	9288.4	9938.4
2121	6044.7	6309.6	6751.1
2122	13522.7	14115.3	15103
2123	12138.8	12670.8	13557.4
2124	7	7.3	7.8
2125	6.4	6.7	7.1
2126	61.9	64.6	69.1
2127	0	0	0
2128	65.7	68.6	73.4
2129	26.8	28	29.9
2130	589.3	615.1	658.2
2131	2179.4	2274.9	2434.1
2132	8072.9	8426.7	9016.4
2133	531.2	554.5	593.3
2134	11.5	12	12.9
2135	9.2	9.6	10.3
2136	5.5	5.7	6.1
2137	55.7	58.2	62.2
2138	2602	2716.1	2906.2
2139	0	0	0
2140	6160.3	6430.3	6880.2
2141	1628	1699.4	1818.3
2142	1054.7	1100.9	1178
2143	34.6	36.1	38.7
2144	162.2	185.2	223.5
2145	79.7	91	109.8
2146	198.7	227	274
2147	228.5	261	315.1
2148	17.4	19.9	24.1
2149	1970.5	2250.5	2717.1
2150	17218.4	19664.8	23742.1
2151	1343.1	1533.9	1852
2152	157.3	179.6	216.8
2153	187.1	213.7	258
2154	14.4	16.4	19.8
2155	98.9	112.9	136.3
2156	8.3	9.5	11.4
2157	27.8	31.8	38.4
2158	17.4	19.9	24.1
2159	85.8	98	118.3

Inclusion of Stationary Source NOx Offset Emission Bank

CT DEEP's Administrative Enforcement group evaluates, certifies and tracks requests from sources that desire to retain rights to emission reductions resulting from source shutdowns or enforceable emission reductions that go beyond regulatory requirements. Certified reductions are "banked" and are potentially available for future use as emission offsets by newly permitted sources. NOx offsets of 0.7 tons/ozone season day (255 annual tons) were included in both the 2011 base year and 2017 projected inventories for the Greater Connecticut area. Note that the 2011 banked offsets were not actually emitted to the atmosphere in 2011, and the full allotment of 2017 banked offsets are unlikely to be emitted into the atmosphere in 2017. Inclusion of the full bank of offsets for both years provides a level of conservatism to the RFP demonstration described in Section 5. Table C-7 provides a summary of the offset bank for both 2011 and 2017 for all of Connecticut. Summer daily values were determined by dividing the annual values by 365.

Table C-7. Banked Stationary Source NOx Offsets Included in the 2011 and 2017 Inventories

Totals by County:	Fairfield	09001	115	160
	Hartford	09003	0	0
	Litchfield	09005	0	0
	Middlesex	09007	165	0
	New Haven	09009	541	648
	New London	09011	8	8
	Tolland	09013	0	0
	Windham	09015	247	247
Area:	Greater CT		255	255
	SWCT		821	808

Corrections to Aircraft/Support Equipment, Landfill Emissions and select EGUs

While preparing this SIP revision, CT DEEP discovered that a database summation script inadvertently resulted in a large overestimation of ozone summer day emissions from the aircraft/airport support equipment sector in the March 2016 submittal of the 2011 PEI. In addition, in Section 4.14 of the 2011 PEI, CT DEEP describes calculations of landfill area source emissions, but those calculations were not carried forward into summary tables elsewhere in the PEI document. The CT DEEP has included corrected values in the 2011 Base Year Inventory presented in Section 4.1.3 and used for the RFP demonstration. Table C-8 summarizes the corrections for the Southwest Connecticut area. More detailed county breakdowns for the whole state are provided in Tables C-9 and C-10.

Table C-8. Corrections to 2011 PEI for Aircraft/Support Equipment and Landfills for Southwest Connecticut

	NOx		VOC			
2011 Summer Day (lbs/day)	Original PEI Aircraft/Support	Corrected PEI Aircraft/Support	Original PEI Aircraft/Support	Corrected PEI Aircraft/Support	Original PEI Landfills	Corrected PEI Landfills
Fairfield	171.0	33.72	346.5	70.53	-	180.37
Middlesex	1.8	3.33	13.1	7.32	-	17.79
New Haven	381.9	40.12	271.5	54.31	-	150.59
Southwest CT Total (lbs/day)	554.7	77.17	631.1	132.16		348.76
Southwest CT Total (tons/day)	0.28	0.04	0.32	0.07		0.17

Table C-9. Details of Corrections to 2011 PEI Emissions for Aircraft/Support Equipment in Connecticut

					Original 2011 PEI Submission						Corrected for 2011 Base Year Inventory for RFP					
County	FAA Location ID	EIS Facility ID	Airport Name	SCC	Annual Emissions (TPY)			Summer Day Emissions (PPD)			Annual Emissions (TPY)			Summer Day Emissions (PPD)		
					VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO
Fairfield	0CT7	11014011	Bridgeport Hospital Heliport	2275050012	0.011	0.005	0.153	0.038	0.018	0.533	0.011	0.005	0.153	0.038	0.018	0.533
Fairfield	0CT8	11517611	Danbury Hospital Heliport	2275050012	0.011	0.005	0.148	0.014	0.007	0.194	0.011	0.005	0.148	0.014	0.007	0.194
Fairfield	1CT0	11018911	NORDEN SYSTEMS	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
Fairfield	1CT0	11018911	NORDEN SYSTEMS	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
Fairfield	5CT4	11847111	Norwalk Hospital Heliport	2275050012	0.004	0.002	0.053	0.015	0.007	0.206	0.004	0.002	0.053	0.015	0.007	0.206
Fairfield	5CT8	11193811	Canal Street Heliport	2275050011	0.002	0.002	0.222	0.032	0.014	2.554	0.001	0.001	0.111	0.016	0.007	1.277
Fairfield	5CT8	11193811	Canal Street Heliport	2275050012	0.022	0.01	0.316	0.262	0.124	3.646	0.011	0.005	0.158	0.131	0.062	1.823
Fairfield	9CT1	16101711	THE TOWERS	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
Fairfield	9CT1	16101711	THE TOWERS	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
Fairfield	BDR	9795811	Igor I. Sikorsky Memorial Airport	2265008005	0	0.011	0.066	0.011	0.034	0.315	0.000	0.001	0.006	0.001	0.003	0.026
Fairfield	BDR	9795811	Igor I. Sikorsky Memorial Airport	2267008005	0	0	0.011	0	0	0.032	0.000	0.000	0.001	0.000	0.000	0.003
Fairfield	BDR	9795811	Igor I. Sikorsky Memorial Airport	2268008005	0	0	0	0	0	0.024	0.000	0.000	0.000	0.000	0.000	0.002
Fairfield	BDR	9795811	Igor I. Sikorsky Memorial Airport	2270008005	0.011	0.033	0.308	0.049	0.152	1.506	0.001	0.003	0.028	0.004	0.013	0.126

					Original 2011 PEI Submission						Corrected for 2011 Base Year Inventory for RFP					
County	FAA Location ID	EIS Facility ID	Airport Name	SCC	Annual Emissions (TPY)			Summer Day Emissions (PPD)			Annual Emissions (TPY)			Summer Day Emissions (PPD)		
					VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO
Fairfield	BDR	9795811	Igor I. Sikorsky Memorial Airport	2275001000	1.551	0.176	30.789	7.706	0.858	152.726	0.141	0.016	2.799	0.798	0.089	15.820
Fairfield	BDR	9795811	Igor I. Sikorsky Memorial Airport	2275020000	0.011	0.066	0.121	0.043	0.337	0.611	0.001	0.006	0.011	0.004	0.034	0.061
Fairfield	BDR	9795811	Igor I. Sikorsky Memorial Airport	2275050011	18.656	8.063	1489.818	92.559	39.982	7390.204	1.696	0.733	135.438	11.063	4.779	883.291
Fairfield	BDR	9795811	Igor I. Sikorsky Memorial Airport	2275050012	33.132	15.554	460.251	164.367	77.177	2283.052	3.012	1.414	41.841	16.371	7.687	227.396
Fairfield	BDR	9795811	Igor I. Sikorsky Memorial Airport	2275060011	0.165	0.154	28.138	0.84	0.785	139.556	0.015	0.014	2.558	0.067	0.062	11.120
Fairfield	BDR	9795811	Igor I. Sikorsky Memorial Airport	2275060012	3.619	2.915	13.189	17.926	14.46	65.442	0.329	0.265	1.199	1.428	1.152	5.215
Fairfield	BDR	9795811	Igor I. Sikorsky Memorial Airport	2275070000	0	0.011	0	0	0.035	0.015	0.000	0.001	0.000	0.000	0.003	0.001
Fairfield	CT12	11315111	St Vincent's Medical Center Heliport	2275050012	0.004	0.002	0.057	0.023	0.011	0.325	0.004	0.002	0.057	0.023	0.011	0.325
Fairfield	CT37	12291011	Sikorsky Bridgeport Heliport	2275050011	0.002	0.002	0.222	0.017	0.008	1.398	0.001	0.001	0.111	0.008	0.004	0.651
Fairfield	CT37	12291011	Sikorsky Bridgeport Heliport	2275050012	0.022	0.01	0.316	0.144	0.067	1.996	0.011	0.005	0.158	0.077	0.036	1.067
Fairfield	CT41	11316111	General Electric Co. Heliport	2275050011	0.002	0.002	0.222	0.017	0.008	1.422	0.001	0.001	0.111	0.011	0.005	0.916

					Original 2011 PEI Submission						Corrected for 2011 Base Year Inventory for RFP					
County	FAA Location ID	EIS Facility ID	Airport Name	SCC	Annual Emissions (TPY)			Summer Day Emissions (PPD)			Annual Emissions (TPY)			Summer Day Emissions (PPD)		
					VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO
Fairfield	CT41	11316111	General Electric Co. Heliport	2275050012	0.022	0.01	0.316	0.146	0.068	2.029	0.011	0.005	0.158	0.052	0.024	0.722
Fairfield	CT52	12305511	Flying Ridge Airstrip	2275050011	0.009	0.004	0.749	0.102	0.044	8.145	0.009	0.004	0.749	0.102	0.044	8.145
Fairfield	CT89	12307811	ITT	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
Fairfield	CT89	12307811	ITT	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
Fairfield	CT91	12308011	USSC Heliport	2275050011	0.002	0.002	0.222	0.06	0.026	4.818	0.001	0.001	0.111	0.030	0.013	2.409
Fairfield	CT91	12308011	USSC Heliport	2275050012	0.022	0.01	0.316	0.496	0.232	6.88	0.011	0.005	0.158	0.248	0.116	3.440
Fairfield	DXR	9795711	Danbury Municipal Airport	2265008005	0	0	0.04	0.01	0.02	0.261	0.000	0.000	0.004	0.001	0.002	0.026
Fairfield	DXR	9795711	Danbury Municipal Airport	2267008005	0	0	0	0	0	0.03	0.000	0.000	0.000	0.000	0.000	0.003
Fairfield	DXR	9795711	Danbury Municipal Airport	2268008005	0	0	0	0	0	0.02	0.000	0.000	0.000	0.000	0.000	0.002
Fairfield	DXR	9795711	Danbury Municipal Airport	2270008005	0.01	0.02	0.2	0.04	0.11	1.235	0.001	0.002	0.020	0.004	0.011	0.123
Fairfield	DXR	9795711	Danbury Municipal Airport	2275001000	1.61	0.18	31.93	9.835	1.094	195.034	0.161	0.018	3.193	1.015	0.113	20.128
Fairfield	DXR	9795711	Danbury Municipal Airport	2275020000	0.03	0.09	0.11	0.19	0.572	0.683	0.003	0.009	0.011	0.019	0.057	0.068
Fairfield	DXR	9795711	Danbury Municipal Airport	2275050011	17.36	7.5	1385.83	106.028	45.803	8465.616	1.736	0.750	138.583	10.565	4.564	843.549
Fairfield	DXR	9795711	Danbury Municipal Airport	2275050012	30.82	14.47	428.12	188.281	88.405	2615.277	3.082	1.447	42.812	18.761	8.809	260.597
Fairfield	DXR	9795711	Danbury Municipal Airport	2275060011	0.3	0.28	49.28	1.816	1.686	301.032	0.030	0.028	4.928	0.181	0.168	29.996

					Original 2011 PEI Submission						Corrected for 2011 Base Year Inventory for RFP					
County	FAA Location ID	EIS Facility ID	Airport Name	SCC	Annual Emissions (TPY)			Summer Day Emissions (PPD)			Annual Emissions (TPY)			Summer Day Emissions (PPD)		
					VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO
Fairfield	DXR	9795711	Danbury Municipal Airport	2275060012	6.32	4.96	22.83	38.607	30.317	139.487	0.632	0.496	2.283	3.847	3.021	13.899
Fairfield	JSD	12395011	Sikorsky Helipad	2275050012	0.997	0.468	13.853	5.637	2.647	78.3	0.997	0.468	13.853	5.637	2.647	78.300
Hartford	01CT	10937011	BERLIN FAIRGROUNDS	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
Hartford	01CT	10937011	BERLIN FAIRGROUNDS	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
Hartford	0CT3	11013811	N B G H Heliport	2275050012	0.002	0.001	0.034	0	0	0	0.002	0.001	0.034	0.000	0.000	0.000
Hartford	0CT5	11517511	St. Francis Hospital Heliport	2275050012	0.03	0.014	0.412	0.122	0.057	1.701	0.030	0.014	0.412	0.122	0.057	1.701
Hartford	0CT9	11517711	Hartford Hospital Helipad	2275050012	0.567	0.266	7.882	3.577	1.68	49.69	0.567	0.266	7.882	3.577	1.680	49.690
Hartford	23CT	11949311	Blanchette Heliport	2275050011	0.002	0.002	0.222	0.046	0.02	3.614	0.001	0.001	0.111	0.023	0.010	1.807
Hartford	23CT	11949311	Blanchette Heliport	2275050012	0.022	0.01	0.316	0.372	0.174	5.16	0.011	0.005	0.158	0.186	0.087	2.580
Hartford	4B8	9792611	Robertson Field	2265008005	0	0	0.036	0.009	0.018	0.176	0.000	0.000	0.004	0.001	0.002	0.019
Hartford	4B8	9792611	Robertson Field	2267008005	0	0	0	0	0	0.018	0.000	0.000	0.000	0.000	0.000	0.002
Hartford	4B8	9792611	Robertson Field	2268008005	0	0	0	0	0	0.01	0.000	0.000	0.000	0.000	0.000	0.001
Hartford	4B8	9792611	Robertson Field	2270008005	0.009	0.009	0.153	0.028	0.074	0.85	0.001	0.001	0.017	0.003	0.008	0.092
Hartford	4B8	9792611	Robertson Field	2275001000	0.18	0.018	3.483	0.979	0.111	19.423	0.020	0.002	0.387	0.106	0.012	2.102
Hartford	4B8	9792611	Robertson Field	2275050011	14.022	6.057	1119.708	78.253	33.8	6247.645	1.558	0.673	124.412	10.501	4.536	838.429
Hartford	4B8	9792611	Robertson Field	2275050012	24.903	11.691	345.906	138.951	65.244	1930.07	2.767	1.299	38.434	15.038	7.061	208.882
Hartford	4B8	9792611	Robertson Field	2275060011	0.135	0.126	23.076	0.776	0.721	128.75	0.015	0.014	2.564	0.084	0.078	13.934
Hartford	4B8	9792611	Robertson Field	2275060012	2.979	2.358	10.809	16.614	13.149	60.337	0.331	0.262	1.201	1.798	1.423	6.530

					Original 2011 PEI Submission						Corrected for 2011 Base Year Inventory for RFP					
County	FAA Location ID	EIS Facility ID	Airport Name	SCC	Annual Emissions (TPY)			Summer Day Emissions (PPD)			Annual Emissions (TPY)			Summer Day Emissions (PPD)		
					VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO
Hartford	4B9	9792511	Simsbury Tri-Town Airport	2265008005	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
Hartford	4B9	9792511	Simsbury Tri-Town Airport	2267008005	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
Hartford	4B9	9792511	Simsbury Tri-Town Airport	2268008005	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
Hartford	4B9	9792511	Simsbury Tri-Town Airport	2270008005	0	0	0	0	0.008	0	0.000	0.000	0.000	0.000	0.001	0.000
Hartford	4B9	9792511	Simsbury Tri-Town Airport	2275050011	2.752	1.192	219.928	22.16	9.568	1768.968	0.344	0.149	27.491	2.770	1.196	221.121
Hartford	4B9	9792511	Simsbury Tri-Town Airport	2275050012	4.888	2.296	67.944	39.344	18.472	546.488	0.611	0.287	8.493	4.918	2.309	68.311
Hartford	4B9	9792511	Simsbury Tri-Town Airport	2275060011	0.008	0.008	0.92	0.048	0.04	7.416	0.001	0.001	0.115	0.006	0.005	0.927
Hartford	4B9	9792511	Simsbury Tri-Town Airport	2275060012	0.12	0.096	0.432	0.96	0.752	3.496	0.015	0.012	0.054	0.120	0.094	0.437
Hartford	5CT3	11193611	SOUTH GLASTONBURY	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
Hartford	5CT3	11193611	SOUTH GLASTONBURY	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
Hartford	7B6	11649711	Skylark's Air Park	2275050011	1.824	0.788	145.572	19.82	8.56	1582.296	0.456	0.197	36.393	4.955	2.140	395.574
Hartford	7B6	11649711	Skylark's Air Park	2275050012	3.236	1.52	44.936	35.164	16.512	488.452	0.809	0.380	11.234	8.791	4.128	122.113
Hartford	7B6	11649711	Skylark's Air Park	2275060011	0.004	0.004	0.616	0.04	0.036	6.676	0.001	0.001	0.154	0.010	0.009	1.669
Hartford	7B6	11649711	Skylark's Air Park	2275060012	0.08	0.06	0.284	0.856	0.66	3.068	0.020	0.015	0.071	0.214	0.165	0.767
Hartford	9B8	11285611	Salmon River Airfield	2275050011	0.044	0.018	3.466	0.614	0.264	48.976	0.022	0.009	1.733	0.307	0.132	24.488

					Original 2011 PEI Submission						Corrected for 2011 Base Year Inventory for RFP					
County	FAA Location ID	EIS Facility ID	Airport Name	SCC	Annual Emissions (TPY)			Summer Day Emissions (PPD)			Annual Emissions (TPY)			Summer Day Emissions (PPD)		
					VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO
Hartford	9B8	11285611	Salmon River Airfield	2275050012	0.078	0.036	1.07	1.088	0.512	15.118	0.039	0.018	0.535	0.544	0.256	7.559
Hartford	BDL	9792411	Bradley International Airport	2265008005	17.897	54.439	532.598	100.448	305.573	2989.307	1.627	4.949	48.418	9.196	27.975	273.669
Hartford	BDL	9792411	Bradley International Airport	2267008005	1.76	5.346	52.316	9.865	30.016	293.645	0.160	0.486	4.756	0.903	2.748	26.883
Hartford	BDL	9792411	Bradley International Airport	2268008005	1.386	4.224	41.371	7.8	23.737	232.213	0.126	0.384	3.761	0.714	2.173	21.259
Hartford	BDL	9792411	Bradley International Airport	2270008005	85.085	258.863	2532.321	477.569	1452.889	14213.03	7.735	23.533	230.211	43.721	133.011	1301.193
Hartford	BDL	9792411	Bradley International Airport	2275001000	14.168	1.573	280.808	79.509	8.849	1576.078	1.288	0.143	25.528	6.159	0.686	122.090
Hartford	BDL	9792411	Bradley International Airport	2275020000	505.956	4117.157	4123.097	2839.737	23108.18	23141.5	45.996	374.287	374.827	259.976	2115.538	2118.588
Hartford	BDL	9792411	Bradley International Airport	2275050011	4.917	2.123	392.48	27.591	11.917	2202.823	0.447	0.193	35.680	2.817	1.217	224.936
Hartford	BDL	9792411	Bradley International Airport	2275050012	8.778	4.136	121.396	49.252	23.223	681.349	0.798	0.376	11.036	4.336	2.044	59.978
Hartford	BDL	9792411	Bradley International Airport	2275060011	3.201	2.948	523.699	17.937	16.525	2939.368	0.291	0.268	47.609	1.642	1.513	269.097
Hartford	BDL	9792411	Bradley International Airport	2275060012	111.573	83.644	435.424	626.231	469.441	2443.854	10.143	7.604	39.584	57.331	42.977	223.733
Hartford	BDL	9792411	Bradley International Airport	2275070000	11.847	113.674	154.44	66.522	638.005	866.791	1.077	10.334	14.040	6.090	58.409	79.354
Hartford	CT00	11314711	ELECTRO-METHODS INC	2275050011	0.002	0.002	0.222	0.016	0.007	1.277	0.001	0.001	0.111	0.008	0.003	0.626

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County	FAA Location ID	EIS Facility ID	Airport Name	SCC	Annual Emissions (TPY)			Summer Day Emissions (PPD)			Annual Emissions (TPY)			Summer Day Emissions (PPD)		
					VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO
Hartford	CT00	11314711	ELECTRO-METHODS INC	2275050012	0.022	0.01	0.316	0.131	0.061	1.824	0.011	0.005	0.158	0.067	0.031	0.929
Hartford	CT02	12289111	Clark Hill Heliport	2275050011	0.002	0.002	0.222	0.039	0.017	3.156	0.001	0.001	0.111	0.009	0.004	0.747
Hartford	CT02	12289111	Clark Hill Heliport	2275050012	0.022	0.01	0.316	0.325	0.152	4.507	0.011	0.005	0.158	0.248	0.116	3.440
Hartford	CT03	12289211	Bristol Hospital Heliport	2275050012	0.004	0.002	0.057	0.038	0.018	0.525	0.004	0.002	0.057	0.038	0.018	0.525
Hartford	CT05	12289311	KAMAN AEROSPACE CORP	2275050011	0.002	0.002	0.222	0.014	0.006	1.108	0.001	0.001	0.111	0.007	0.003	0.554
Hartford	CT05	12289311	KAMAN AEROSPACE CORP	2275050012	0.022	0.01	0.316	0.114	0.054	1.582	0.011	0.005	0.158	0.057	0.027	0.791
Hartford	CT14	11315311	Bancroft Airport	2275050011	0.009	0.004	0.704	0.096	0.041	7.656	0.009	0.004	0.704	0.096	0.041	7.656
Hartford	CT18	12289811	STATE EMERGENCY	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
Hartford	CT18	12289811	STATE EMERGENCY	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
Hartford	CT19	11315611	Laurie Field	2275050011	0.009	0.004	0.744	0.111	0.048	8.9	0.009	0.004	0.744	0.111	0.048	8.900
Hartford	CT27	12290311	TENNESSEE F	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
Hartford	CT27	12290311	TENNESSEE F	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
Hartford	CT28	12290411	VETERANS HOME & HOSPITAL	2275050012	0.001	0.001	0.019	0.011	0.005	0.158	0.001	0.001	0.019	0.011	0.005	0.158
Hartford	CT35	12290811	HAMILTON STANDARD	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
Hartford	CT35	12290811	HAMILTON STANDARD	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
Hartford	CT49	12305211	PLAINVILLE	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
Hartford	CT49	12305211	PLAINVILLE	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
Hartford	CT50	12305311	MARKS	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
Hartford	CT50	12305311	MARKS	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307

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					VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO
Hartford	CT60	12306211	Ultimate Heliport	2275050011	0.002	0.002	0.222	0.03	0.014	2.41	0.001	0.001	0.111	0.015	0.007	1.205
Hartford	CT60	12306211	Ultimate Heliport	2275050012	0.022	0.01	0.316	0.248	0.116	3.44	0.011	0.005	0.158	0.124	0.058	1.720
Hartford	CT62	12306311	TWIN MANUFACTURING COMPANY	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
Hartford	CT62	12306311	TWIN MANUFACTURING COMPANY	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
Hartford	CT71	12306511	Otis Elevator Co. Heliport	2275050011	0.002	0.002	0.222	0.012	0.006	0.964	0.001	0.001	0.111	0.006	0.003	0.482
Hartford	CT71	12306511	Otis Elevator Co. Heliport	2275050012	0.022	0.01	0.316	0.1	0.046	1.376	0.011	0.005	0.158	0.050	0.023	0.688
Hartford	CT73	12306611	South Meadows Heliport	2275050011	0.002	0.002	0.222	0.01	0.004	0.868	0.001	0.001	0.111	0.005	0.002	0.434
Hartford	CT73	12306611	South Meadows Heliport	2275050012	0.022	0.01	0.316	0.09	0.042	1.238	0.011	0.005	0.158	0.045	0.021	0.619
Hartford	CT75	12306811	UCONN Med Hurlbrink Heliport	2275050012	0.007	0.003	0.096	0.016	0.008	0.229	0.007	0.003	0.096	0.016	0.008	0.229
Hartford	CT85	12307411	Roberts Farm Airport	2275050011	0.011	0.005	0.905	0.148	0.064	11.8	0.011	0.005	0.905	0.148	0.064	11.800
Hartford	CT87	12307611	BOOTLEGGER'S	2275050011	0	0	0.006	0.001	0	0.05	0.000	0.000	0.006	0.001	0.000	0.050
Hartford	CT88	12307711	Rentschler Heliport	2275050011	0.002	0.002	0.222	0.016	0.008	1.302	0.001	0.001	0.111	0.008	0.004	0.651
Hartford	CT88	12307711	Rentschler Heliport	2275050012	0.022	0.01	0.316	0.134	0.062	1.858	0.011	0.005	0.158	0.067	0.031	0.929
Hartford	CT96	12308511	GREEN ACRES	2275050011	0.009	0.004	0.704	0.044	0.019	3.522	0.009	0.004	0.704	0.044	0.019	3.522

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					VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO
Hartford	HFD	9792311	Hartford-Brainard Airport	2265008005	0	0	0.027	0.009	0.024	0.216	0.000	0.000	0.003	0.001	0.002	0.019
Hartford	HFD	9792311	Hartford-Brainard Airport	2267008005	0	0	0	0	0	0.022	0.000	0.000	0.000	0.000	0.000	0.002
Hartford	HFD	9792311	Hartford-Brainard Airport	2268008005	0	0	0	0	0	0.015	0.000	0.000	0.000	0.000	0.000	0.001
Hartford	HFD	9792311	Hartford-Brainard Airport	2270008005	0	0.009	0.126	0.037	0.106	1.016	0.000	0.001	0.014	0.003	0.009	0.088
Hartford	HFD	9792311	Hartford-Brainard Airport	2275001000	0.333	0.036	6.579	2.769	0.308	54.855	0.037	0.004	0.731	0.201	0.022	3.975
Hartford	HFD	9792311	Hartford-Brainard Airport	2275050011	14.553	6.282	1161.666	121.248	52.375	9680.551	1.617	0.698	129.074	15.464	6.680	1234.621
Hartford	HFD	9792311	Hartford-Brainard Airport	2275050012	25.839	12.132	358.875	215.304	101.096	2990.609	2.871	1.348	39.875	34.948	16.410	485.432
Hartford	HFD	9792311	Hartford-Brainard Airport	2275060011	0.378	0.297	52.596	3.15	2.495	438.336	0.042	0.033	5.844	0.402	0.318	55.904
Hartford	HFD	9792311	Hartford-Brainard Airport	2275060012	6.75	5.256	24.327	56.25	43.768	202.752	0.750	0.584	2.703	9.131	7.104	32.910
Litchfield	04CT	10946911	Shingle Mill Heliport	2275050011	0.002	0.002	0.222	0.018	0.008	1.446	0.001	0.001	0.111	0.009	0.004	0.723
Litchfield	04CT	10946911	Shingle Mill Heliport	2275050012	0.022	0.01	0.316	0.148	0.07	2.064	0.011	0.005	0.158	0.074	0.035	1.032
Litchfield	05CT	11563311	O AND G	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
Litchfield	05CT	11563311	O AND G	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
Litchfield	08CT	10958911	Seavair's Landing Airport	2275050011	0	0	0.006	0.001	0	0.069	0.000	0.000	0.006	0.001	0.000	0.069
Litchfield	0CT0	11517211	Sharon Hospital Heliport	2275050012	0.01	0.005	0.134	0.061	0.029	0.845	0.010	0.005	0.134	0.061	0.029	0.845

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					VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO
Litchfield	11N	10995811	Candlelight Farms Airport	2275050011	0.596	0.258	47.622	9.141	3.948	729.853	0.298	0.129	23.811	4.603	1.988	367.515
Litchfield	11N	10995811	Candlelight Farms Airport	2275050012	1.06	0.498	14.712	16.233	7.622	225.473	0.530	0.249	7.356	8.059	3.784	111.937
Litchfield	33CT	11116611	IRISH HILLS FARMS	2275050011	0	0	0.006	0.001	0	0.05	0.000	0.000	0.006	0.001	0.000	0.050
Litchfield	5CT5	11193711	THOMSON FIELD	2275050011	0	0	0.006	0.001	0	0.05	0.000	0.000	0.006	0.001	0.000	0.050
Litchfield	6Y2	11778911	Candlelight Farms Heliport	2275050011	0.002	0	0.13	0.022	0.01	1.824	0.001	0.000	0.065	0.011	0.005	0.912
Litchfield	6Y2	11778911	Candlelight Farms Heliport	2275050012	0.014	0.006	0.184	0.188	0.088	2.606	0.007	0.003	0.092	0.094	0.044	1.303
Litchfield	CT01	12289011	Whelan Farms Airport	2275050011	0.01	0.005	0.833	0.086	0.037	6.884	0.010	0.005	0.833	0.086	0.037	6.884
Litchfield	CT24	11315811	North Canaan Airport	2275050011	0.232	0.1	18.502	2.518	1.088	201.104	0.116	0.050	9.251	1.259	0.544	100.552
Litchfield	CT24	11315811	North Canaan Airport	2275050012	0.18	0.084	2.49	1.948	0.914	27.066	0.090	0.042	1.245	0.974	0.457	13.533
Litchfield	CT42	11316211	Wings Ago Airstrip	2275050011	0.007	0.003	0.593	0.161	0.07	12.889	0.007	0.003	0.593	0.161	0.070	12.889
Litchfield	CT51	12305411	Docktors Field	2275050011	0.007	0.003	0.553	0.151	0.065	12.018	0.007	0.003	0.553	0.151	0.065	12.018
Litchfield	CT59	12306111	Good Hill Farm	2275050011	0.008	0.004	0.673	0.086	0.037	6.877	0.008	0.004	0.673	0.086	0.037	6.877
Litchfield	CT66	11316711	Long View Landing Airport	2275050011	0.008	0.003	0.633	0.045	0.019	3.578	0.008	0.003	0.633	0.045	0.019	3.578
Litchfield	N09	12469211	NORTHFIELD	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
Litchfield	N09	12469211	NORTHFIELD	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
Litchfield	N41	12470011	Waterbury-Plymouth Airport	2275050011	0.736	0.318	58.832	6.648	2.872	530.758	0.368	0.159	29.416	3.444	1.488	274.971

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					VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO
Litchfield	N41	12470011	Waterbury-Plymouth Airport	2275050012	1.528	0.718	21.212	13.778	6.469	191.365	0.764	0.359	10.606	6.640	3.118	92.224
Middlesex	0CT6	11013911	Aetna @ Middletown Heliport	2275050011	0.002	0.002	0.222	0.042	0.018	3.374	0.001	0.001	0.111	0.021	0.009	1.687
Middlesex	0CT6	11013911	Aetna @ Middletown Heliport	2275050012	0.022	0.01	0.316	0.346	0.162	4.816	0.011	0.005	0.158	0.173	0.081	2.408
Middlesex	42B	11146011	Goodspeed Airport & Seaplane Base	2275050011	0.672	0.292	53.724	5.852	2.528	467.156	0.168	0.073	13.431	1.463	0.632	116.789
Middlesex	42B	11146011	Goodspeed Airport & Seaplane Base	2275050012	1.192	0.56	16.584	10.384	4.876	144.208	0.298	0.140	4.146	2.596	1.219	36.052
Middlesex	42B	11146011	Goodspeed Airport & Seaplane Base	2275060011	0	0	0.184	0.008	0.008	1.6	0.000	0.000	0.046	0.002	0.002	0.400
Middlesex	42B	11146011	Goodspeed Airport & Seaplane Base	2275060012	0.024	0.02	0.084	0.204	0.16	0.736	0.006	0.005	0.021	0.051	0.040	0.184
Middlesex	CT11	12289611	Devil's Hopyard Field	2275050011	0.007	0.003	0.588	0.112	0.048	8.943	0.007	0.003	0.588	0.112	0.048	8.943
Middlesex	CT39	12291111	Maplewood Farm Airport	2275050011	0.008	0.003	0.628	0.085	0.037	6.823	0.008	0.003	0.628	0.085	0.037	6.823
Middlesex	CT57	12305911	OLD SAYBROOK	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
Middlesex	CT57	12305911	OLD SAYBROOK	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
Middlesex	CT58	12306011	PORTLAND	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
Middlesex	CT58	12306011	PORTLAND	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
Middlesex	CT86	12307511	SANFORD	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
Middlesex	CT86	12307511	SANFORD	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
Middlesex	CT92	12308111	Bemer Heliport	2275050011	0.002	0.002	0.222	0.06	0.026	4.818	0.001	0.001	0.111	0.030	0.013	2.409

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					VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO
Middlesex	CT92	12308111	Bemer Heliport	2275050012	0.022	0.01	0.316	0.496	0.232	6.88	0.011	0.005	0.158	0.248	0.116	3.440
Middlesex	CT97	12308611	Middlesex Medical Center Shoreline	2275050012	0.013	0.006	0.177	0.067	0.031	0.924	0.013	0.006	0.177	0.067	0.031	0.924
Middlesex	CT98	12308711	Middlesex Hospital	2275050012	0.01	0.005	0.144	0.09	0.042	1.249	0.010	0.005	0.144	0.090	0.042	1.249
Middlesex	SNC	9790011	Chester	2275050011	0.362	0.156	28.954	2.799	1.209	223.448	0.181	0.078	14.477	1.616	0.698	129.033
Middlesex	SNC	9790011	Chester	2275050012	0.138	0.064	1.916	1.065	0.5	14.782	0.069	0.032	0.958	0.450	0.211	6.246
New Haven	0CT1	11517311	Bristol-Myers Squibb Co. Heliport	2275050011	0.002	0.002	0.222	0.024	0.01	1.88	0.001	0.001	0.111	0.012	0.005	0.940
New Haven	0CT1	11517311	Bristol-Myers Squibb Co. Heliport	2275050012	0.022	0.01	0.316	0.194	0.09	2.684	0.011	0.005	0.158	0.097	0.045	1.342
New Haven	1CT2	11019011	Yale-New Haven Hospital	2275050012	0.085	0.04	1.188	0.446	0.209	6.196	0.085	0.040	1.188	0.446	0.209	6.196
New Haven	1CT3	11019111	St. Mary's Hospital Heliport	2275050012	0.007	0.003	0.091	0.067	0.031	0.93	0.007	0.003	0.091	0.067	0.031	0.930
New Haven	4C3	11160811	Hummingbird Heliport	2275050011	0.002	0	0.108	0.008	0.004	0.656	0.001	0.000	0.054	0.004	0.002	0.328
New Haven	4C3	11160811	Hummingbird Heliport	2275050012	0.012	0.006	0.154	0.068	0.032	0.936	0.006	0.003	0.077	0.034	0.016	0.468
New Haven	5CT1	11847011	RONDO	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
New Haven	5CT1	11847011	RONDO	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
New Haven	CT34	12290711	U.S. Surgical Rooftop Heliport	2275050011	0.002	0.002	0.222	0.06	0.026	4.818	0.001	0.001	0.111	0.030	0.013	2.409
New Haven	CT34	12290711	U.S. Surgical Rooftop Heliport	2275050012	0.022	0.01	0.316	0.496	0.232	6.88	0.011	0.005	0.158	0.248	0.116	3.440

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					VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO
New Haven	CT40	12291211	BOB THOMAS FORD	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
New Haven	CT40	12291211	BOB THOMAS FORD	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
New Haven	CT45	12305011	TIMEX	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
New Haven	CT45	12305011	TIMEX	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
New Haven	CT46	11316311	MILFORD-ALEXANDER	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
New Haven	CT46	11316311	MILFORD-ALEXANDER	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
New Haven	CT54	12305711	NORTH BRANFORD	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
New Haven	CT54	12305711	NORTH BRANFORD	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
New Haven	CT55	12305811	NORTH HAVEN	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
New Haven	CT55	12305811	NORTH HAVEN	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
New Haven	CT65	11316611	REED'S GAP	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
New Haven	CT65	11316611	REED'S GAP	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
New Haven	CT84	12307311	PARTYKA CHEVROLET	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
New Haven	CT84	12307311	PARTYKA CHEVROLET	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
New Haven	CT95	12308411	Meriden - Wallingford Hospital Heliport	2275050012	0.008	0.004	0.105	0.059	0.028	0.824	0.008	0.004	0.105	0.059	0.028	0.824
New Haven	HVN	9785311	Tweed-New Haven Airport	2265008005	0.22	0.87	6.03	1.402	5.53	38.299	0.022	0.087	0.603	0.144	0.568	3.935

					Original 2011 PEI Submission						Corrected for 2011 Base Year Inventory for RFP					
County	FAA Location ID	EIS Facility ID	Airport Name	SCC	Annual Emissions (TPY)			Summer Day Emissions (PPD)			Annual Emissions (TPY)			Summer Day Emissions (PPD)		
					VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO
New Haven	HVN	9785311	Tweed-New Haven Airport	2267008005	0.02	0.09	0.59	0.138	0.545	3.764	0.002	0.009	0.059	0.014	0.056	0.387
New Haven	HVN	9785311	Tweed-New Haven Airport	2268008005	0.02	0.07	0.47	0.108	0.429	2.978	0.002	0.007	0.047	0.011	0.044	0.306
New Haven	HVN	9785311	Tweed-New Haven Airport	2270008005	1.05	4.14	28.69	6.668	26.3	182.09	0.105	0.414	2.869	0.685	2.702	18.708
New Haven	HVN	9785311	Tweed-New Haven Airport	2275001000	1.1	0.12	21.8	6.981	0.779	138.388	0.110	0.012	2.180	0.622	0.069	12.322
New Haven	HVN	9785311	Tweed-New Haven Airport	2275020000	0.14	0.42	0.5	0.877	2.655	3.195	0.014	0.042	0.050	0.106	0.318	0.383
New Haven	HVN	9785311	Tweed-New Haven Airport	2275050011	9.2	3.97	734.22	58.373	25.217	4660.69	0.920	0.397	73.422	5.997	2.591	478.838
New Haven	HVN	9785311	Tweed-New Haven Airport	2275050012	16.34	7.69	226.92	103.74	48.842	1440.456	1.634	0.769	22.692	11.014	5.185	152.925
New Haven	HVN	9785311	Tweed-New Haven Airport	2275060011	0.31	0.29	51.55	1.976	1.838	327.246	0.031	0.029	5.155	0.169	0.157	28.018
New Haven	HVN	9785311	Tweed-New Haven Airport	2275060012	0.2	20.17	58.92	1.284	128.03	374.025	0.020	2.017	5.892	0.110	10.961	32.023
New Haven	MMK	9785211	Meriden-Markham Municpal Airport	2275001000	0.03	0.005	0.635	0.179	0.02	3.548	0.006	0.001	0.127	0.035	0.004	0.688
New Haven	MMK	9785211	Meriden-Markham Municpal Airport	2275050011	2.175	0.94	173.475	12.186	5.264	972.958	0.435	0.188	34.695	2.456	1.061	196.100
New Haven	MMK	9785211	Meriden-Markham Municpal Airport	2275050012	3.86	1.81	53.59	21.638	10.161	300.575	0.772	0.362	10.718	4.361	2.048	60.581

					Original 2011 PEI Submission						Corrected for 2011 Base Year Inventory for RFP					
County	FAA Location ID	EIS Facility ID	Airport Name	SCC	Annual Emissions (TPY)			Summer Day Emissions (PPD)			Annual Emissions (TPY)			Summer Day Emissions (PPD)		
					VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO
New Haven	MMK	9785211	Meriden-Markham Municpal Airport	2275060011	0.01	0.01	1.38	0.045	0.044	7.75	0.002	0.002	0.276	0.009	0.009	1.562
New Haven	MMK	9785211	Meriden-Markham Municpal Airport	2275060012	0.175	0.135	0.635	0.992	0.764	3.562	0.035	0.027	0.127	0.200	0.154	0.718
New Haven	OXC	9785011	Waterbury-Oxford Airport	2265008005	0.011	0.022	0.242	0.045	0.126	1.377	0.001	0.002	0.022	0.004	0.012	0.130
New Haven	OXC	9785011	Waterbury-Oxford Airport	2267008005	0	0	0.022	0	0.011	0.137	0.000	0.000	0.002	0.000	0.001	0.013
New Haven	OXC	9785011	Waterbury-Oxford Airport	2268008005	0	0	0.022	0	0.011	0.106	0.000	0.000	0.002	0.000	0.001	0.010
New Haven	OXC	9785011	Waterbury-Oxford Airport	2270008005	0.044	0.099	1.155	0.222	0.584	6.537	0.004	0.009	0.105	0.021	0.055	0.617
New Haven	OXC	9785011	Waterbury-Oxford Airport	2275001000	5.863	0.649	116.27	33.155	3.687	657.165	0.533	0.059	10.570	2.087	0.232	41.360
New Haven	OXC	9785011	Waterbury-Oxford Airport	2275020000	0.055	0.154	0.187	0.286	0.869	1.047	0.005	0.014	0.017	0.027	0.082	0.099
New Haven	OXC	9785011	Waterbury-Oxford Airport	2275050011	12.727	5.5	1015.729	71.905	31.06	5741.046	1.157	0.500	92.339	7.291	3.150	582.134
New Haven	OXC	9785011	Waterbury-Oxford Airport	2275050012	22.594	10.604	313.786	127.685	59.954	1773.572	2.054	0.964	28.526	12.054	5.660	167.435
New Haven	OXC	9785011	Waterbury-Oxford Airport	2275060011	0.407	0.374	67.056	2.288	2.128	379.024	0.037	0.034	6.096	0.224	0.208	37.107
New Haven	OXC	9785011	Waterbury-Oxford Airport	2275060012	8.734	7.117	32.142	49.37	40.22	181.683	0.794	0.647	2.922	4.833	3.938	17.787
New Haven	OXC	9785011	Waterbury-Oxford Airport	2275070000	0	0	0	0	0.011	0.011	0.000	0.000	0.000	0.000	0.001	0.001

					Original 2011 PEI Submission						Corrected for 2011 Base Year Inventory for RFP					
County	FAA Location ID	EIS Facility ID	Airport Name	SCC	Annual Emissions (TPY)			Summer Day Emissions (PPD)			Annual Emissions (TPY)			Summer Day Emissions (PPD)		
					VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO
New London	14CT	11003211	MPTN Heliport	2275050011	0.002	0.002	0.222	0.016	0.007	1.277	0.001	0.001	0.111	0.008	0.003	0.626
New London	14CT	11003211	MPTN Heliport	2275050012	0.022	0.01	0.316	0.131	0.061	1.824	0.011	0.005	0.158	0.067	0.031	0.929
New London	20CT	11043111	Global Developmen t Facility Heliport	2275050011	0.002	0.002	0.222	0.014	0.006	1.108	0.001	0.001	0.111	0.009	0.004	0.747
New London	20CT	11043111	Global Developmen t Facility Heliport	2275050012	0.022	0.01	0.316	0.114	0.053	1.583	0.011	0.005	0.158	0.037	0.017	0.516
New London	24CT	11962811	BEE FIELD	2275050011	0	0	0.006	0.001	0	0.05	0.000	0.000	0.006	0.001	0.000	0.050
New London	5CT7	11847311	Mile Creek Airport	2275050011	0	0	0.006	0.001	0	0.065	0.000	0.000	0.006	0.001	0.000	0.065
New London	69CT	16081511	THE SHORE	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
New London	69CT	16081511	THE SHORE	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
New London	CT07	11314911	Ski's Landing Area	2275050011	0	0	0.006	0.001	0	0.065	0.000	0.000	0.006	0.001	0.000	0.065
New London	CT08	12289411	GARDNER LAKE	2275050011	0.007	0.003	0.571	0.059	0.026	4.717	0.007	0.003	0.571	0.059	0.026	4.717
New London	CT16	12289711	Fetske Water Strip	2275050011	0	0	0.018	0.005	0.002	0.392	0.000	0.000	0.018	0.005	0.002	0.392
New London	CT32	11315911	Gallup Farm Airport	2275050011	0	0	0.006	0.002	0.001	0.124	0.000	0.000	0.006	0.002	0.001	0.124
New London	CT43	12304811	Spruce Airport	2275050011	0.009	0.004	0.691	0.156	0.067	12.471	0.009	0.004	0.691	0.156	0.067	12.471
New London	CT48	11316411	WYCHWOOD FIELD	2275050011	0.008	0.004	0.651	0.067	0.029	5.379	0.008	0.004	0.651	0.067	0.029	5.379
New London	CT78	11317111	LORD CREEK	2275050011	0.008	0.003	0.611	0.063	0.027	5.048	0.008	0.003	0.611	0.063	0.027	5.048
New London	CT80	12307011	STONINGTO N AIRPARK	2275050011	0.008	0.003	0.611	0.063	0.027	5.048	0.008	0.003	0.611	0.063	0.027	5.048

					Original 2011 PEI Submission						Corrected for 2011 Base Year Inventory for RFP					
County	FAA Location ID	EIS Facility ID	Airport Name	SCC	Annual Emissions (TPY)			Summer Day Emissions (PPD)			Annual Emissions (TPY)			Summer Day Emissions (PPD)		
					VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO
New London	CT93	12308211	Backus Hospital Heliport	2275050012	0.173	0.081	2.409	1.018	0.478	14.138	0.173	0.081	2.409	1.018	0.478	14.138
New London	GON	9810511	Groton-New London Airport	2265008005	0	0	0.033	0.011	0.022	0.246	0.000	0.000	0.003	0.001	0.002	0.023
New London	GON	9810511	Groton-New London Airport	2267008005	0	0	0	0	0	0.022	0.000	0.000	0.000	0.000	0.000	0.002
New London	GON	9810511	Groton-New London Airport	2268008005	0	0	0	0	0	0.021	0.000	0.000	0.000	0.000	0.000	0.002
New London	GON	9810511	Groton-New London Airport	2270008005	0.011	0.022	0.187	0.043	0.128	1.186	0.001	0.002	0.017	0.004	0.012	0.111
New London	GON	9810511	Groton-New London Airport	2275001000	11.792	1.309	233.772	77.145	8.585	1529.231	1.072	0.119	21.252	7.225	0.804	143.221
New London	GON	9810511	Groton-New London Airport	2275020000	0.022	0.044	0.132	0.16	0.278	0.843	0.002	0.004	0.012	0.015	0.026	0.079
New London	GON	9810511	Groton-New London Airport	2275050011	9.405	4.059	750.904	61.523	26.576	4912.008	0.855	0.369	68.264	5.762	2.489	460.037
New London	GON	9810511	Groton-New London Airport	2275050012	16.72	7.865	232.067	109.358	51.422	1518.073	1.520	0.715	21.097	10.242	4.816	142.176
New London	GON	9810511	Groton-New London Airport	2275060011	0.132	0.121	22.495	0.886	0.822	147.145	0.012	0.011	2.045	0.083	0.077	13.781

					Original 2011 PEI Submission						Corrected for 2011 Base Year Inventory for RFP					
County	FAA Location ID	EIS Facility ID	Airport Name	SCC	Annual Emissions (TPY)			Summer Day Emissions (PPD)			Annual Emissions (TPY)			Summer Day Emissions (PPD)		
					VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO
New London	GON	9810511	Groton-New London Airport	2275060012	2.871	2.255	10.406	18.749	14.767	68.079	0.261	0.205	0.946	1.756	1.383	6.376
New London	GON	9810511	Groton-New London Airport	2275070000	0	0	0.011	0	0.032	0.096	0.000	0.000	0.001	0.000	0.002	0.006
Tolland	02CT	11551811	STRANGERS POINT	2275050011	0.002	0.002	0.222	0.016	0.007	1.277	0.001	0.001	0.111	0.008	0.003	0.626
Tolland	02CT	11551811	STRANGERS POINT	2275050012	0.022	0.01	0.316	0.131	0.061	1.824	0.011	0.005	0.158	0.067	0.031	0.929
Tolland	7B9	11649811	Ellington Airport	2275050011	3.216	1.388	256.8	29.891	12.912	2386.557	0.804	0.347	64.200	5.419	2.341	432.651
Tolland	7B9	11649811	Ellington Airport	2275050012	5.604	2.632	77.84	52.08	24.453	723.389	1.401	0.658	19.460	9.137	4.290	126.910
Tolland	7B9	11649811	Ellington Airport	2275060011	0	0	0.124	0.006	0.006	1.14	0.000	0.000	0.031	0.001	0.001	0.200
Tolland	7B9	11649811	Ellington Airport	2275060012	0.016	0.012	0.056	0.147	0.113	0.525	0.004	0.003	0.014	0.068	0.053	0.246
Tolland	CT09	11315011	Heckler Field	2275050011	0	0	0.006	0.001	0	0.052	0.000	0.000	0.006	0.001	0.000	0.052
Tolland	CT15	11315411	Wysocki Airport	2275050011	0.007	0.003	0.545	0	0	0	0.007	0.003	0.545	0.000	0.000	0.000
Tolland	CT29	12290511	Valley Farms Airport	2275050011	0.007	0.003	0.585	0.08	0.034	6.358	0.007	0.003	0.585	0.080	0.034	6.358
Windham	0CT2	11517411	Windham Community Memorial Hospital Heliport	2275050012	0.021	0.01	0.297	0.121	0.057	1.678	0.021	0.010	0.297	0.121	0.057	1.678
Windham	31CT	16101611	QUIET CORNER	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
Windham	31CT	16101611	QUIET CORNER	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
Windham	5CT6	11847211	BUELL FARM	2275050011	0.011	0.005	0.898	0.164	0.071	13.08	0.011	0.005	0.898	0.164	0.071	13.080
Windham	64CT	11580211	Woodstock Airport	2275050011	0.015	0.006	1.178	0.128	0.055	10.247	0.015	0.006	1.178	0.128	0.055	10.247

					Original 2011 PEI Submission						Corrected for 2011 Base Year Inventory for RFP					
County	FAA Location ID	EIS Facility ID	Airport Name	SCC	Annual Emissions (TPY)			Summer Day Emissions (PPD)			Annual Emissions (TPY)			Summer Day Emissions (PPD)		
					VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO	VOC	NOX	CO
Windham	C44	11305211	Toutant Airport	2275050011	0.01	0.004	0.866	0.094	0.04	7.53	0.005	0.002	0.433	0.047	0.020	3.765
Windham	C44	11305211	Toutant Airport	2275050012	0.02	0.01	0.268	0.168	0.078	2.326	0.010	0.005	0.134	0.084	0.039	1.163
Windham	CT10	12289511	FLAT ROCK FARM	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
Windham	CT10	12289511	FLAT ROCK FARM	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
Windham	CT13	11315211	YANKEE AIRSTRIP	2275050011	0.007	0.003	0.537	0.056	0.024	4.44	0.007	0.003	0.537	0.056	0.024	4.440
Windham	CT68	12306411	WAUREGAN	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
Windham	CT68	12306411	WAUREGAN	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
Windham	CT70	11316911	WILSONVILLE	2275050011	0.002	0.002	0.222	0.022	0.01	1.832	0.001	0.001	0.111	0.011	0.005	0.916
Windham	CT70	11316911	WILSONVILLE	2275050012	0.022	0.01	0.316	0.188	0.088	2.614	0.011	0.005	0.158	0.094	0.044	1.307
Windham	CT74	12306711	Westford Airstrip	2275050011	0.007	0.003	0.578	0.157	0.068	12.555	0.007	0.003	0.578	0.157	0.068	12.555
Windham	IJD	9808111	Windham Airport	2275001000	0.045	0.005	0.845	0.258	0.028	5.136	0.009	0.001	0.169	0.046	0.005	0.917
Windham	IJD	9808111	Windham Airport	2275050011	2.705	1.17	215.92	16.463	7.112	1314.303	0.541	0.234	43.184	4.703	2.032	375.515
Windham	IJD	9808111	Windham Airport	2275050012	4.8	2.255	66.705	29.232	13.726	406.028	0.960	0.451	13.341	5.220	2.451	72.505
Windham	IJD	9808111	Windham Airport	2275060011	0	0	0.37	0.012	0.012	2.245	0.000	0.000	0.074	0.002	0.002	0.401
Windham	IJD	9808111	Windham Airport	2275060012	0.045	0.035	0.17	0.286	0.223	1.031	0.009	0.007	0.034	0.051	0.040	0.184
Windham	LZD	9808211	Danielson	2275050011	2.384	1.032	190.488	36.308	15.684	2898.712	1.059	0.497	14.712	16.118	7.568	223.874
Windham	LZD	9808211	Danielson	2275050012	4.236	1.988	58.848	64.472	30.272	895.496	0.001	0.001	0.111	0.010	0.009	1.682
Windham	LZD	9808211	Danielson	2275060011	0.004	0.004	0.444	0.04	0.036	6.728	0.014	0.011	0.051	0.215	0.166	0.773
Windham	LZD	9808211	Danielson	2275060012	0.056	0.044	0.204	0.86	0.664	3.092	0.596	0.258	47.622	9.077	3.921	724.678

Table C-10. Statewide County-Level Corrections to 2011 PEI Emissions for Landfills

2011 Summer Day (lbs/day)		VOC	
County	SCC	Original PEI	Corrected PEI
Litchfield	2620030000	0	119.34
Hartford	2620030000	0	698.03
New London	2620030000	0	78.54
Tolland	2620030000	0	24.62
Windham	2620030000	0	37.07
Fairfield	2620030000	0	180.37
Middlesex	2620030000	0	17.79
New Haven	2620030000	0	150.60

Table C-11. Revisions to Point Source Inventory for Southwest Connecticut

Facility Name	Site Address	EIS ID	SIC Code	Unit ID	Original PEI		Corrected PEI	
					NOx (lb/day)	VOC (lb/day)	NOx (lb/day)	VOC (lb/day)
Kleen Energy System Project	1349 River Rd Middletown, CT	14622911	4911	P131	266	4	325	4.8
Middletown Power LLC	1866 River Rd Middletown, CT	715711	4911	P144	321	2	5.6	3.7
				P145	297	2	21.9	5.8
				P146	417	1	18.3	3.3
				P147	255	1	8.3	1.7

Table C-12. Rail Revisions for Southwest Connecticut

County	SCC	Original PEI		Corrected PEI	
		NOx (lb/day)	VOC (lb/day)	NOx (lb/day)	VOC (lb/day)
Fairfield	2285002007	181.27	6.71	145.48	5.66
	2285002009	476.58	3.59	96.83	2.15
	2285002010	139.96	8.12	28.43	1.65
Middlesex	2285002007	31.43	1.16	23.293149	1.48883761
	2285002008	116.52	4.32	23.675	0.876851
	2285002009	236.76	8.77	48.1047	1.78165
	2285002010	0.53	0.03	0.107396	0.00623011
New Haven	2285002006	104.71	3.88	0.00388028	0.00018771
	2285002007	213.85	7.92	154.997771	6.02631137
	2285002008	390.75	14.47	79.3926	2.94048
	2285002009	1049.04	38.85	213.144	7.89421
	2285002010	147.95	8.58	30.0604	1.74383