

Onroad Emissions MOBILE6.2 to MOVES Replacement Submittal

For the Delaware County
Maintenance Area under the 1997
8-Hour Ozone Standard

August 2012

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Introduction

On August 25, 2005, the Indiana Department of Environmental Management (IDEM) submitted a *Request for Redesignation and Maintenance Plan for Ozone Attainment in the 8-Hour Ozone Nonattainment Area, Delaware County, Indiana*. The United States Environmental Protection Agency (U.S. EPA) subsequently approved the Indiana redesignation of the Delaware County Area to attainment for ozone on November 16, 2005 (70 FR 69443). Onroad emissions for the August 25, 2005, submittal were calculated using MOBILE6.2. U.S. EPA has encouraged mobile source stakeholders to transition to the new Motor Vehicle Emissions Simulator (MOVES) model as expeditiously as possible. Therefore, IDEM is providing this MOBILE6.2 to MOVES replacement update to the previously submitted 8-hour ozone maintenance plan for the Delaware County Area that incorporates MOVES-based onroad emissions.

Emission Inventory

The table, "Delaware County Area" was included without title in Appendix F of the original Redesignation Petition and Maintenance Plan. The table, "Delaware County Area – A" (to be considered a replacement of the table included in Appendix F) has been revised to incorporate updated onroad emission estimates for nitrogen oxides (NO_x) and volatile organic compounds (VOCs) for the years 2002, 2010, and 2015 and results in a different overall safety margin for the area.

Delaware County Area (MOBILE6.2-based Onroad Emissions)

Sector	2002 NO_x	2010 NO_x	2015 NO_x
Area	1.43	1.54	1.58
Nonroad	4.11	3.29	2.74
Onroad	13.89	7.66	4.59
Point	0.35	0.37	0.39
Total	19.78	12.86	9.30
Sector	2002 VOC	2010 VOC	2015 VOC
Area	9.79	11.48	12.67
Nonroad	9.23	5.43	5.28
Onroad	8.19	4.69	3.33
Point	0.83	1.00	1.17
Total	28.04	22.60	22.45

**Delaware County Area - A
(MOVES-based Onroad Emissions)**

Sector	2002 NO _x	2010 NO _x	2015 NO _x
Area	1.43	1.54	1.58
Nonroad	4.11	3.29	2.74
Onroad	20.28	10.53	6.10
Point	0.35	0.37	0.39
Total	26.17	15.73	10.81
Overall Safety Margin	NA	NA	15.36
Sector	2002 VOC	2010 VOC	2015 VOC
Area	9.79	11.48	12.67
Nonroad	9.23	5.43	5.28
Onroad	6.23	3.45	2.20
Point	0.83	1.00	1.17
Total	26.08	21.36	21.32
Overall Safety Margin	NA	NA	4.76

Onroad emission estimates in table “Delaware County Area – A” were calculated using U.S. EPA’s MOVES model-produced emission factors and data extracted from the area’s travel-demand model. The MOVES model implements a significantly different approach to emissions estimation than the previous model (MOBILE6.2). Preliminary use of the MOVES model indicates that emission estimates can be considerably different than similar calculations using MOBILE6.2, which was used to create the original Motor Vehicle Emission Budgets (MVEBs) for the Delaware County Area. A general summary of the MOVES methodology used in this area can be found in Appendix A. In addition, MOVES input and output files are being provided electronically with this submittal. Growth and control strategy assumptions for non-mobile sources (i.e. area, nonroad, and point) from the original submittal for the years 2002, 2010, and 2015 were developed before the economic challenges of the last several years. Because of this, the factors included in the original submittal may project more growth than will actually occur in the future. As a result, the growth and control strategy assumptions for the non-mobile sources for the years 2002, 2010, and 2015 continue to be valid and do not affect the overall conclusions of the plan.

Onroad safety margins have been included for onroad emission estimates to accommodate the wide array of assumptions that are factored into the calculation process. Since assumptions change over time, it is necessary to have an onroad safety margin that will accommodate the impact of refined assumptions in the process. The plan continues to meet all applicable Clean Air Act (CAA) requirements as the revised emission inventories clearly illustrate that total NO_x and VOC emissions in the Delaware County Area will continue to decline leading to local reductions between 2002 (base year) and 2015 (maintenance plan horizon).

Transportation Conformity Budgets

Table 5.1 was included on Page 19 of the original Redesignation Petition and Maintenance Plan for the Delaware County Area. Table 5.1 – A (to be considered a replacement of Table 5.1) has been revised to incorporate U.S. EPA’s MOVES model-produced emission factors and data extracted from the region’s travel-demand model.

**Table 5.1
Emission Estimations for On-Road Mobile Sources
(MOBILE6.2-based Onroad Emissions)**

	2002	2010	2015	2015 Margin of Safety
VMT (miles/day)	4,410,000	4,822,355	13,282,621	
VOC (tons/day)	8.19	4.69	3.33	5.1%
NO _x (tons/day)	13.89	7.66	4.59	5.0%

**Table 5.1 - A
Emission Estimates for Onroad Mobile Sources
(MOVES-based Onroad Emissions)**

	2002	2010	2015
VOC (tons/day)	6.23	3.45	2.20
NO _x (tons/day)	20.28	10.53	6.10

Table 5.2 was included on Page 19 of the original Redesignation Petition and Maintenance Plan for the Delaware County Area. Table 5.2 – A (to be considered a replacement of Table 5.2) has been revised to incorporate MVEBs calculated using U.S. EPA’s MOVES model-produced emission factors and data extracted from the region’s travel-demand model as detailed in Table 5.1 - A.

**Table 5.2
Mobile Vehicle Emission Budgets
(MOBILE6.2-based Onroad Emissions)**

	2015
VOC (tons/day)	3.50
NO _x (tons/day)	4.82

**Table 5.2 - A
Motor Vehicle Emission Budgets
(MOVES-based Onroad Emissions)**

	2015
VOC (tons/day)	2.53
NO _x (tons/day)	7.02

Through the interagency consultation process, it was determined that a maintenance plan horizon year budget of 2015, would be appropriate. The interagency consultation group approved onroad margins of safety of fifteen percent (15%) for both VOC and NO_x onroad emission estimates for the year 2015. A summary of this interagency consultation discussion can be found in Appendix B. These revised emission inventories clearly illustrate that onroad VOC and NO_x emissions in the Delaware County Area will continue to decline leading to local reductions between 2002 (base year) and 2015 (maintenance plan horizon).

Furthermore, when compared to the overall safety margin as defined in the Code of Federal Regulations (CFR) at 40 CFR 93.101, it is evident the onroad safety margin allocation is reasonable and appropriate. More specifically, even with the allocation of an onroad safety margin to mobile sources, emissions will continue to remain well below the overall safety margin for all sources as detailed in table, "Delaware County Area – A". MVEBs are constrained to ensure that the total emissions (i.e., all source categories) do not exceed the 2002 attainment year emissions of either VOC or NO_x, thereby ensuring continued maintenance of the 1997 8-hour ozone standards.

Conclusion

This MOBILE6.2 to MOVES replacement update to the previously submitted 8-hour ozone maintenance plan for the Delaware County Area incorporates onroad emission estimates and a revised MVEB using U.S. EPA's recently adopted MOVES model. MVEBs have been revised in anticipation of the mandatory use of the MOVES model in future transportation conformity determinations. The onroad emission estimates were calculated using the MOVES-based emission factors and data extracted from the area's travel-demand model. Onroad safety margins for VOCs and NO_x, established through the interagency consultation process, are included in order to account for the wide array of assumptions that are factored into the calculation process. MVEBs are also constrained to ensure that total VOC and NO_x emissions (i.e., all source categories) do not exceed attainment year (2002) emissions to ensure continued maintenance of the 1997 8-hour ozone standard. With the addition of MOVES-based onroad safety margins applied to mobile sources, the Delaware County Area will continue to remain well below the overall safety margins for all sources into the future. As such, the 8-hour ozone maintenance plan for the Delaware County Area continues to meet all applicable CAA requirements.

Appendix A

Delaware County Area MOVES Methodology

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Delaware County
MOVES2010a Input Data and
Parameters

INDOT Planning Contract

Final Report
June 14, 2012



CDM
Smith

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Overview:

This report is being written to document the input parameters for a set of MOVES2010a runs for the Delaware County 8-hour Ozone Maintenance Area. This report contains a discussion on the intended input settings used in MOVES2010a and the development of the input datasets. These MOVES2010a runs are intended to develop a default set of emission rates that can be used for conformity determination and is part of a statewide effort being conducted by the Indiana Department of Transportation (INDOT).

Throughout this report references are made to MOVES 2010a codes for two types of data. The values for the source type codes are shown in Table 1. The values for the road type codes are shown in Table 2. MOVES2010a input settings and assumptions for this effort are shown in Appendix A.

Table 1: MOVES2010a Source Type Codes

sourcetypeid	Description
11	Motorcycles
21	Passenger Car
31	Passenger Truck
32	Light Commercial Truck
41	Intercity Bus
42	Transit Bus
43	School Bus
51	Refuse Truck
52	Single Unit Short-haul Truck
53	Single Unit Long-haul Truck
54	Motor Home
61	Combination Short-haul Truck
62	Combination Long-haul Truck

Table 2: MOVES2010a Road Type Codes

roadtypeid	Description
1	Off Network
2	Rural Restricted Access
3	Rural Unrestricted Access
4	Urban Restricted Access
5	Urban Unrestricted Access

Vehicle Age Distribution:

The vehicle age distributions for MOVES source types 21, 31, and 32 (cars, passenger trucks, and light commercial vehicles respectively) were developed through an analysis of Indiana's 2009 vehicle registration data. The analysis was performed by Eastern Research Group (ERG) under contract to the Lake Michigan Air Directors Consortium (LADCO). ERG was provided with vehicle identification numbers (VIN) for vehicles in Indiana.

There were approximately 6.37 million VINs in the statewide data set. Out of these, approximately 1.3 million returned errors. Of these, approximately 200,000 errors were deemed non-critical. This means that the model year and vehicle type assigned to the records were most likely correct despite there being an error in the VIN decoding. These records were included in ERG's analysis. The remaining errors were considered critical enough to call into question the accuracy of the model year and vehicle types. These critical errors were excluded from ERG's analysis.

In all, approximately 5.2 million VINs from around the state were used in the analysis. Each VIN was associated to a specific county. ERG then developed age distributions for each county in the state along with seven combination areas comprised of two or more counties each. Additional information on the methodology used to develop the vehicle age distributions can be found in a May 28, 2010 report written by ERG for LADCO titled MOBILE6 and MOVES Registration Distribution Calculations for Indiana Registration Data. Each set of age distributions was provided in both MOBILE6 and MOVES formats. The MOVES formatted data will be used for these MOVES2010a runs.

Due to limitations in ERG's VIN decoder, it was not possible to develop vehicle age distributions for any source types other than 21, 31, and 32 from the vehicle registration data. For all other source types, MOVES2010a default vehicle age distributions specific to each source types were used. This includes motorcycles and all heavy vehicles. Vehicle age distributions for all source types were kept constant for all future years. The vehicle age distributions for Delaware County are shown in Appendix B of this report.

Vehicle Population:

The vehicle populations for source types 21, 31, and 32 were developed directly from the vehicle registration data. All valid records that were identified from the vehicle registration data set were used to determine the number of vehicles for each of these three source types. The VIN decoded data provided to INDOT contained vehicle types according to MOBILE6.2 vehicle categories. There is a direct correlation between MOVES source type 21 (cars) and the MOBILE6.2 vehicle type LDV. All valid LDV records (those records not excluded from the vehicle age distribution analysis due to errors as was described in the section on Vehicle Age Distribution in this report) were counted in the vehicle population.

There is not a direct correlation between MOVES source types 31 (passenger trucks) and 32 (light commercial vehicles) and the MOBILE6.2 light truck vehicle types (LDT1, LDT2, LDT3, and LDT4). All valid records from the vehicle registration data set for MOBILE6.2 light duty trucks were counted in the vehicle populations. The light duty trucks were distributed between MOVES source types 31 and 32 as per the Environmental Protection Agency's (EPA) guidance documented in Table A.1 of the appendix of the Technical Guidance on the Use of MOVES2010 for Emission Inventory Preparation in State Implementation Plans and Transportation Conformity. The guidance provides two sets of factors for distributing MOBILE6.2 light trucks between MOVES source types 31 and 32. These are based on fuel type and are shown in Table 3.

Table 3: Distribution of MOBILE6.2 Light Duty Trucks into MOVES Source Types

Fuel	Source Types	
	31	32
Gas	78%	22%
Diesel	42%	58%

As per ERG's assumption documented in MOBILE6 and MOVES Registration Distribution Calculations for Indiana Registration Data, all light duty trucks that did not have a fuel type identified were counted as diesel trucks. This was to prevent an underestimation of diesel trucks and their related emissions.

Since only valid records from the vehicle registration data were used to calculate vehicle populations for source types 21, 31, and 32, it is reasonable to assume that some of the erroneous records that were discarded from the analysis actually belonged to these source types. The nature of these errors is not that the vehicle does not exist. Rather, it is that the vehicle could not be properly identified with any sense of certainty. It was therefore necessary to adjust the vehicle populations calculated from vehicle registration data to compensate for these discarded records. Based on an analysis of the error rate reported by ERG, vehicle populations for source types 21, 31, and 32 were increased by 5.8 percent.

Vehicle populations were not able to be developed directly from the vehicle registration data for some source types. This was due to the limitations in the VIN decoder used by ERG to process the vehicle registration data. Vehicle populations for all other source types (motorcycles and heavy vehicles) were derived by applying the Mileage Accumulation Rate (MAR) method documented in EPA's Technical Guidance on the Use of MOVES2010 for Emission Inventory Preparation in State Implementation Plans and Transportation Conformity, Section 3.3 Source Type Population.

The default MARs were extracted from MOVES by running MOVES for a single pollutant and a single year for all vehicles, fuels, months, days, and hours. The activity output was set to report both distance and population. A ratio of population to vehicle-miles-traveled (VMT) was calculated from these outputs. The ratios were calculated for each source type.

The Delaware-Muncie Metropolitan Plan Commission (DMMPC), which is the metropolitan planning organization (MPO) for Delaware County, provided VMT by MOVES road types extracted from their travel demand model's base year. Since the default MARs in MOVES vary by year (but not by location), the MOVES run that was executed to extract the MARs was run for a year consistent with the travel demand model's base year. This resulted in MARs that could be applied directly to the validated VMTs reported by the travel demand model. The travel demand model VMTs were converted into annual VMT and distributed by vehicle types using statewide default VMT distribution factors documented in this report in the section on Default VMT Distributions. The MARs were then applied to the annual vehicle type VMTs. The result was an estimated vehicle population for each source type for the travel demand model's base year. Since the vehicle populations for source types 21, 31, and 32 were developed directly from the vehicle registration data, the population estimates derived for those source types using the MAR method were discarded and the observed data were used instead.

Future year vehicle populations were developed base on socioeconomic growth rates for the maintenance area. The MPO provided base year and horizon year population and employment data for the area. Annual growth rates were calculated for population growth and employment growth individually. Population growth rates were then used to grow the light vehicle populations (source types 11, 21, 31, and 32). Employment growth rates were used to grow the heavy vehicle populations (source types 41, 42, 43, 51, 52, 53, 54, 61, and 62). Vehicle populations were calculated for every year from 2008 to 2040. These vehicle populations for Delaware County are shown in Appendix C.

Meteorological Data:

The default set of hourly temperatures and hourly relative humidity was developed using EPA's data converters for changing MOBILE6.2 minimum / maximum temperatures and absolute humidity to the MOVES equivalent formats. The values for the MOBILE6.2 inputs were taken from the Request for Redesignation and Maintenance Plan for Ozone Attainment in the 8-hour Ozone Basic Nonattainment Area, Appendix G, developed by the Indiana Department of Environmental Management in August, 2005. The MOVES formatted meteorological data for Delaware County are presented in Appendix D of this report.

Default VMT Distributions:

As part of this effort, INDOT developed a default set of VMT distribution factors by Highway Performance Monitoring System (HPMS) vehicle type and by MOVES road type. These distribution factors were developed by analyzing four consecutive years of continuous traffic count data ending in 2010 for twenty permanent traffic count stations throughout Indiana. The stations were selected to provide a spread of locations corresponding to each of the four MOVES road types. Furthermore, these stations were selected from among sites that were concentrated in nonattainment and maintenance areas. In some cases, data from the requested site were either partially or completely unavailable. An inventory of the sites used to develop the distributions is shown in Table 4.

The vehicle counts reported at each station were provided by vehicle class. These were aggregated into the six basic HPMS vehicle types: motorcycle, passenger car, light truck, bus, single-unit heavy truck, and combination heavy truck. The distribution of VMT by vehicle type was calculated for each road type by taking each vehicle type's percentage of total traffic. These default statewide factors are shown in Appendix E.

Table 4: Inventory of Permanent Count Stations

SiteID	City	County	Location	Road Type	Data Quality
3000	MUNCIE	DELAWARE	SR 332 RM 0.5	3	Closed since 9/26/2006. No data.
3200	CARMEL	HAMILTON	US 31 RM 125.7	5	Good
3300	INDY WEST	MARION	I 465 MM 10.0	4	Closed since 9/1/10
4000	GARY	LAKE	I 80 / I 94 MM 6.0	4	Only 2010 data passed QC
4500	LAPORTE	LAPORTE	SR 2 RM 65.2	3	Good
5600	SELLERSBURG	CLARK	I 65 MM 8.0	4	Bad sensors. Not usable.
6100	EVANSVILLE	GIBSON	I 64 MM 27.9	2	Good
0105	TERRE HAUTE	VIGO	US 41 RM 104.2	3	Good-closed 11/13/08-5/13/09
0201	MIDDLEBURY	ELKHART	SR 120 RM 13.9	3	Good- closed 8/3/10-12/6/10
0210	FORT WAYNE	ALLEN	I-69 0.53 mi N of SR 3	4	Good
0303	MUNCIE	DELAWARE	US 35 RM 44.5	5	Good
0327	DALEVILLE	DELAWARE	I 69 MM 31.4	2	Good-built in 12/10/2007
0403	SOUTH BEND	ST. JOSEPH	US 20 RM 77.1	4	Good
0501	INDY SOUTH	MARION	SR 37 RM 143.5	5	Good-closed 5/22/09-6/1/09
0502	MARTINSVILLE	MORGAN	SR 67 RM 80.6	3	Good
0507	SEYMOUR	JACKSON	I 65 MM 47.0	2	Good
0602	HAZLETON	GIBSON	SR 56 RM 0.6	3	Good
0603	DUBOIS	DUBOIS	SR 56 RM 53.3	3	Good- closed 10/16/08-3/20/09
0608	EVANSVILLE	VANDERBURGH	SR 66 RM 23.5	5	Good
1315	I 70	MARION	I 70 MM 83.5	4	Closed 5/17/06-3/24/08

Default Hourly Distributions:

The same set of twenty permanent traffic count locations discussed in the section on Default VMT Distributions was analyzed to develop a set of hourly distribution factors. These factors were calculated by road type, by HPMS vehicle type. Hourly factors were only calculated for the average weekday. The hourly distribution pattern for each traffic count location was reviewed. Any data that appeared to reflect either an error in the data or an outlier of behavior were removed to prevent bias in the data. The following data were excluded from the analysis:

- Bus data from count stations 0105 and 0603 were excluded due to abnormal midnight peaks in the data;
- An abnormal relationship between passenger cars and light duty trucks at count station 4500 prompted the exclusion of all data from this location due to questions of reliability;
- Peak spreading behavior observed at count station 4000 from traffic related to Chicago was considered to be too unique to be included in a default statewide data set; and,

- Combination truck traffic from station 3200 was excluded due to too much overnight traffic when compared to other vehicles and other stations.

Furthermore, traffic patterns reported by those count stations corresponding to road type 3 (3000, 4500, 0105, 0201, 0502, 0602, and 0603) had a tendency to over represent long distance travel. This was most likely the result of statewide permanent count stations focusing primarily on higher order facilities. Rural collectors and local streets are less likely to reflect long distance travel. The hourly distributions for road type 3 (rural unrestricted access) were adjusted to better account for traffic behavior on lower order facilities in rural areas. A sample of traffic count data from Morgan County, IN was used to introduce more local traffic behavior in the road type 3 hourly distributions. An analysis of the Morgan County data showed a pattern more consistent with AM and PM peaking characteristics reflecting local commuting traffic on collectors and local streets for passenger cars and light duty trucks. The Morgan County data for passenger cars and light duty trucks on collectors and local streets were weighted and added to the road type 3 data set. This analysis assumed that rural collectors and local streets accounted for 20 percent of all VMT for road type 3.

The statewide default hourly distribution factors are presented in Appendix F.

Default Daily and Monthly Distributions:

Default daily and monthly distribution factors were calculated from INDOT's official count adjustment factors which are more commonly used to develop AADT from raw traffic counts. These factors are based on the set of daily traffic counts collected from all permanent count stations throughout the state. The daily distribution factors determine what percentage of VMT is occurring on weekdays and what percentage is occurring on weekends. The monthly distribution factors determine what percentage of annual VMT is occurring in each month of the year. The statewide default daily distribution factors are shown in Appendix G. The statewide default monthly distribution factors are shown in Appendix H.

Ramp Fractions:

The ramp fractions represent the percentage of vehicle-hours-traveled (VHT) for road types 2 (rural restricted access) and 4 (urban restricted access) occurring on the ramps associated with those road types. These fractions were calculated based on the percentage of VHT occurring on ramps reported by the base year travel demand model. These ramp fractions are reported in Appendix I.

Appendix A

Number of Runs:

Input Item	Ozone
Years	2002, 2010, 2015, 2020, 2025, 2030, 2035, 2040
Pollutants/ Processes	Volatile Organic Compound (VOC), NOx, and supporting
Meteorology	Summer
# of MOVES runs	8

General Parameters:

MOVES Screen	Input Item	Ozone
Description	Description	User Choice
Scale	Domain/Scale	County
	Calculation Type	Emission Rate
Time Spans	Time Aggregation Level	Hour
	Year	2002, 2010, 2015, 2020, 2025, 2030, 2035, 2040
	Months	July
	Days	Weekday
	Hours	Select All
Geographic Bounds	Geographic Bounds	Delaware County
Vehicles	Vehicles	All Gas and Diesel Combinations
Road Type	Road Type	Select All
Pollutants/ Processes	Pollutants/ Processes	VOC, NOx, and supporting
General Output	Database Name	Delaware Ozone
	Units	Select "Grams" and "Miles" and "Million BTU"
	Activity	Distance, Population
Output Emissions Detail	On Road	Select "Source Use Type" and "Road Type"

County Data Manager

County Data Manager Input	Excel Sheet Tab Name	Ozone
Source (Vehicle) Type Population	sourceTypeYear	Local Registration for Source Types 21, 31, and 32; Estimated population using default MOVES mileage accumulation rates and local VMT for all other source types. Future year vehicle populations based on population growth rates for source types 11, 21, 31, and 32. Employment growth used for all other source types.
Vehicle Type VMT (by 13 MOVES Vehicle Types)	HPMSVTypeYear	Statewide default vehicle distributions across road types developed by INDOT using an analysis of permanent count station data from a statewide data set.
	MonthVMTFraction	Statewide default monthly fractions developed by INDOT using an analysis of permanent count station data from a statewide data set.
	DayVMTFraction	Statewide default daily fractions developed by INDOT using an analysis of permanent count station data from a statewide data set.
	HourVMTFraction	Statewide default hourly fractions developed by INDOT using an analysis of permanent count station data from a statewide data set.
Average Speed Distribution (% of VHT in each 5 mph speed bin)	avgSpeed Distribution	National defaults.
Road Type Distribution (VMT by 5 MOVES Road Types)	roadType Distribution	Calculated from local VMT data. Use travel demand model base year distributions for all years.
Age Distribution (Vehicle Population by Age of Vehicle)	sourceTypeAge Distribution	Local age distributions developed from vehicle registration data for source types 21, 31, and 32. Default MOVES age distributions for all other source types.
Ramp Fraction	RoadType	Based on local travel demand model.
Meteorology Data	ZoneMonthHour	MOBILE6 Summer Met Data Converted to MOVES format
Fuel (% of Market Share by Fuel Type)	FuelFormulation	MOVES Defaults
	FuelSupply	Delaware County MOVES Defaults for Summer (check if varies among counties)
I/M Program	IMCoverage	No Program

Appendix B

Vehicle Age Distributions for Delaware County:

ageid	Source Types												
	11	21	31	32	41	42	43	51	52	53	54	61	62
0	0.2109690540	0.0270887127	0.0099403579	0.0275038352	0.0643023355	0.0545743076	0.0622220643	0.0494240790	0.0588526168	0.0787544027	0.0615095870	0.0535634660	0.0670845256
1	0.1921154969	0.0463389893	0.0404938788	0.0513916283	0.0626728412	0.0531913309	0.0606452875	0.0481716155	0.0573612230	0.0767586735	0.0599508636	0.0535634660	0.0670845256
2	0.1573471585	0.0519181114	0.0469812703	0.0622397545	0.0624853859	0.0530322328	0.0604638952	0.0480275345	0.0571896519	0.0765290827	0.0597715492	0.0541045093	0.0677621447
3	0.1359771581	0.0490363335	0.0414704754	0.0464606618	0.0624229593	0.0529792497	0.0604034894	0.0479795509	0.0571325166	0.0764526251	0.0597118340	0.0575579884	0.0720873878
4	0.1058454735	0.0534396902	0.0599890316	0.0567609029	0.0617369906	0.0523970560	0.0597397140	0.0474523026	0.0565046834	0.0756124785	0.0590556596	0.0564182312	0.0706599203
5	0.0750909142	0.0551226465	0.0572355342	0.0592611747	0.0559170498	0.0474575929	0.0541080614	0.0429789769	0.0511779950	0.0684845018	0.0534884926	0.0489290859	0.0612802835
6	0.0476805323	0.0539007746	0.0620487601	0.0535831690	0.0468366056	0.0397508123	0.0453212873	0.0359994879	0.0428670388	0.0573630896	0.0448023279	0.0366034411	0.0458432683
7	0.0331026886	0.0590188122	0.0643507377	0.0569800570	0.0425786431	0.0361370941	0.0412011709	0.0327268079	0.0389700355	0.0521482660	0.0407293873	0.0340742206	0.0426755959
8	0.0197278356	0.0571744744	0.0562240592	0.0515012053	0.0468268516	0.0397426124	0.0453119367	0.0359920640	0.0428582007	0.0573512681	0.0447930981	0.0358093100	0.0448486759
9	0.0118473747	0.0648976392	0.0674549196	0.0706771861	0.0534377006	0.0453533365	0.0517089150	0.0410733035	0.0489087688	0.0654479137	0.0511168262	0.0526288382	0.0659139587
10	0.0053251777	0.0617853191	0.0657458756	0.0585141354	0.0532712252	0.0452120443	0.0515478328	0.0409453420	0.0487564067	0.0652440247	0.0509576859	0.0624520143	0.0782168041
11	0.0025378610	0.0539929915	0.0564333298	0.0535831690	0.0407951886	0.0536203440	0.0411075833	0.0313560350	0.0391491717	0.0523881239	0.0302729398	0.0478258601	0.0598985955
12	0.0013011470	0.0545001844	0.0512364410	0.0481043173	0.0331924560	0.0489936472	0.0382833197	0.0255124310	0.0294483131	0.0394065607	0.0466101866	0.0389128550	0.0487354179
13	0.0006124019	0.0458548506	0.0440166021	0.0388860399	0.0277347637	0.0456089741	0.0333751020	0.0545980574	0.0316399801	0.0194774783	0.0291673253	0.0325145854	0.0462990441
14	0.0002476898	0.0466386942	0.0419587737	0.0414201183	0.0364294706	0.0377746681	0.0430863640	0.0632656498	0.0364439725	0.0194691625	0.0347804437	0.0427077419	0.0462072388
15	0.0001527705	0.0386158244	0.0387499564	0.0355029586	0.0283511969	0.0332950401	0.0210164622	0.0395849332	0.0357887614	0.0311848083	0.0335202065	0.0332372597	0.0300444032
16	0.0000668536	0.0327369974	0.0303442503	0.0284900285	0.0235884296	0.0279132162	0.0253671498	0.0341566540	0.0259967277	0.0230196849	0.0233151075	0.0276536739	0.0230524492
17	0.0000299603	0.0298321653	0.0247985770	0.0249835634	0.0175637044	0.0244970846	0.0206833627	0.0146346390	0.0197956396	0.0052258132	0.0206748599	0.0052906442	0.0138452217
18	0.0000127409	0.0225700848	0.0212060968	0.0197238659	0.0201192241	0.0250480695	0.0266888558	0.0401958334	0.0193740288	0.0037212159	0.0155464816	0.0235865809	0.0100086460
19	0.0000055369	0.0178900775	0.0166718984	0.0150120535	0.0225790392	0.0306610768	0.0301447753	0.0342277190	0.0227335396	0.0175775477	0.0203828520	0.0264703224	0.0098603738
20	0.0000022027	0.0162301734	0.0203341355	0.0177514793	0.0226407923	0.0281971934	0.0173882093	0.0270081845	0.0289395633	0.0183874556	0.0265944575	0.0265427135	0.0095755112
21	0.0000010015	0.0121956842	0.0180321579	0.0169844401	0.0212965445	0.0224413685	0.0208032932	0.0367430589	0.0255089927	0.0121624816	0.0238465850	0.0249667984	0.0083402541
22	0.0000005320	0.0091755810	0.0125562415	0.0118343195	0.0221366577	0.0207614938	0.0211741003	0.0294241579	0.0211707169	0.0029207200	0.0232916866	0.0259516972	0.0021970287
23	0.0000002372	0.0079537071	0.0107425622	0.0105193951	0.0187753208	0.0176845935	0.0186862600	0.0367365508	0.0255742899	0.0006595597	0.0173935700	0.0220110680	0.0022815392
24	0.0000001072	0.0062476946	0.0081266785	0.0088757396	0.0165801584	0.0153441343	0.0162223474	0.0195371739	0.0181341022	0.0013228019	0.0186391363	0.0194375881	0.0028947085
25	0.0000000515	0.0045647363	0.0062781207	0.0056980057	0.0130464803	0.0119613578	0.0125268942	0.0202862884	0.0101534224	0.0013255722	0.0189070434	0.0152949162	0.0014963357
26	0.0000000201	0.0024206935	0.0035924802	0.0027394258	0.0052066606	0.0114707358	0.0046276161	0.0058785937	0.0158244798	0.0000000000	0.0123859355	0.0061039775	0.0003051644
27	0.0000000084	0.0013832534	0.0024066130	0.0036160421	0.0044375500	0.0062552616	0.0034269422	0.0066192300	0.0082431519	0.0005853113	0.0073123264	0.0052023202	0.0002365920
28	0.0000000046	0.0017982294	0.0022670992	0.0032873110	0.0038534093	0.0027153387	0.0040227141	0.0058648852	0.0078447522	0.0004224309	0.0040199156	0.0045175071	0.0007539156
29	0.0000000027	0.0014293619	0.0004534198	0.0007670392	0.0050202650	0.0073813426	0.0039557847	0.0014702211	0.0082910352	0.0000000000	0.0005297244	0.0058854602	0.0002483418
30	0.0000000006	0.0142475101	0.0178577657	0.0163269779	0.0041641999	0.0025473919	0.0046291194	0.0021486392	0.00093642209	0.0005969550	0.0069720059	0.0048818593	0.0002641374

Source: Quality assured vehicle registration data for Delaware County for source types 21, 32, and 32, MOVES2010a default distributions for all other source types.

Appendix C

Delaware County Vehicle Populations:

Vehicle Populations	Source Types												
	11	21	31	32	41	42	43	51	52	53	54	61	62
<i>Annual Populations</i>													
2008	2,743	45,696	30,485	9,333	51	27	346	16	1,079	139	250	1,667	1,994
2009	2,755	45,892	30,616	9,373	51	27	349	16	1,086	140	251	1,678	2,007
2010	2,767	46,089	30,747	9,414	52	27	351	16	1,093	141	253	1,689	2,021
2011	2,779	46,286	30,879	9,454	52	27	353	16	1,101	141	255	1,700	2,034
2012	2,791	46,485	31,011	9,495	52	27	356	16	1,108	142	256	1,711	2,047
2013	2,802	46,684	31,144	9,535	53	28	358	16	1,115	143	258	1,723	2,061
2014	2,814	46,884	31,278	9,576	53	28	360	16	1,123	144	260	1,734	2,075
2015	2,827	47,085	31,412	9,617	53	28	363	17	1,130	145	261	1,746	2,089
2016	2,839	47,287	31,546	9,658	54	28	365	17	1,138	146	263	1,757	2,102
2017	2,851	47,489	31,682	9,700	54	28	368	17	1,145	147	265	1,769	2,116
2018	2,863	47,693	31,817	9,741	55	29	370	17	1,153	148	267	1,781	2,130
2019	2,875	47,897	31,954	9,783	55	29	373	17	1,161	149	268	1,793	2,145
2020	2,888	48,103	32,091	9,825	55	29	375	17	1,168	150	270	1,805	2,159
2021	2,900	48,309	32,228	9,867	56	29	378	17	1,176	151	272	1,817	2,173
2022	2,912	48,516	32,367	9,909	56	29	380	17	1,184	152	274	1,829	2,188
2023	2,925	48,724	32,505	9,952	56	29	383	17	1,192	153	276	1,841	2,202
2024	2,937	48,933	32,645	9,995	57	30	385	18	1,200	154	277	1,853	2,217
2025	2,950	49,143	32,785	10,037	57	30	388	18	1,208	155	279	1,865	2,232
2026	2,963	49,353	32,925	10,081	57	30	390	18	1,216	156	281	1,878	2,246
2027	2,975	49,565	33,066	10,124	58	30	393	18	1,224	157	283	1,890	2,261
2028	2,988	49,777	33,208	10,167	58	30	395	18	1,232	158	285	1,903	2,276
2029	3,001	49,991	33,350	10,211	59	31	398	18	1,240	159	287	1,915	2,291
2030	3,014	50,205	33,493	10,254	59	31	401	18	1,248	160	289	1,928	2,307
2031	3,027	50,420	33,637	10,298	59	31	403	18	1,257	162	291	1,941	2,322
2032	3,040	50,637	33,781	10,343	60	31	406	18	1,265	163	293	1,954	2,337
2033	3,053	50,854	33,926	10,387	60	32	409	19	1,273	164	294	1,967	2,353
2034	3,066	51,072	34,071	10,431	61	32	411	19	1,282	165	296	1,980	2,368
2035	3,079	51,291	34,217	10,476	61	32	414	19	1,290	166	298	1,993	2,384
2036	3,092	51,510	34,364	10,521	61	32	417	19	1,299	167	300	2,006	2,400
2037	3,105	51,731	34,511	10,566	62	32	420	19	1,307	168	302	2,020	2,416
2038	3,119	51,953	34,659	10,611	62	33	422	19	1,316	169	304	2,033	2,432
2039	3,132	52,176	34,808	10,657	63	33	425	19	1,325	170	306	2,046	2,448
2040	3,146	52,399	34,957	10,703	63	33	428	19	1,334	171	308	2,060	2,464

Source: Quality assured vehicle registration data for Delaware County for source types 21, 32, and 32, MOVES2010a default mileage accumulation rates for all other source types. Population growth factors are taken from local socioeconomic data forecasts.

Appendix D

Delaware County Meteorological Data:

monthID	zoneID	HourID	temperature	relHumidity
7	180350	1	68.5	91.2
7	180350	2	67.3	95.1
7	180350	3	66.4	98.3
7	180350	4	65.7	100.0
7	180350	5	65.1	100.0
7	180350	6	64.5	100.0
7	180350	7	64.0	100.0
7	180350	8	64.4	100.0
7	180350	9	67.0	96.0
7	180350	10	71.2	83.1
7	180350	11	75.5	72.0
7	180350	12	79.2	63.8
7	180350	13	82.4	57.4
7	180350	14	84.1	54.3
7	180350	15	84.7	53.2
7	180350	16	84.9	52.9
7	180350	17	84.5	53.7
7	180350	18	83.2	55.8
7	180350	19	81.2	59.8
7	180350	20	78.5	65.3
7	180350	21	75.8	71.4
7	180350	22	73.4	77.2
7	180350	23	71.8	81.7
7	180350	24	70.1	86.4

Source: Mobile 6.2 reported meteorological data from Appendix G of the *Request for Redesignation and Maintenance Plan for Ozone Attainment in the 8-Hour Ozone Basic Nonattainment Area, Delaware County, Indiana* prepared by IDEM on August 25, 2005 converted using EPA data converter.

Appendix E

Indiana Default VMT Distributions by Vehicle Type and Road Type:

Road Type	Motorcycle	Passenger Car	Light Duty Truck	Bus	Single Unit Truck	Combination Truck
2	0.007033832	0.506408086	0.163786651	0.004174166	0.007773053	0.310824213
3	0.001733929	0.659751199	0.225767175	0.000793168	0.010963315	0.100991214
4	0.003973041	0.569953374	0.254198647	0.002831718	0.009082816	0.159960404
5	0.002785022	0.702754695	0.245240087	0.001402085	0.009764356	0.038053756

Source: Statewide averages developed from Indiana Department of Transportation traffic count data.

Appendix F

Indiana Default Hourly Distribution Factors for Road Type 2 – Rural Restricted Access:

Hour	Source Types												
	11	21	31	32	41	42	43	51	52	53	54	51	62
1	0.0125903247	0.0101219844	0.0084967341	0.0084967341	0.0254913340	0.0254913340	0.0254913340	0.0126607789	0.0126607789	0.0126607789	0.0126607789	0.0197906895	0.0197906895
2	0.0104070951	0.0069241973	0.0056421955	0.0066421955	0.0269500431	0.0269500431	0.0269500431	0.0114617645	0.0114617645	0.0114617645	0.0114617645	0.0212124099	0.0212124099
3	0.0098043179	0.0056567534	0.0061275627	0.0061275627	0.0231103443	0.0231103443	0.0231103443	0.0107741941	0.0107741941	0.0107741941	0.0107741941	0.0201622890	0.0201622890
4	0.0140329469	0.0069658232	0.0084286563	0.0084286563	0.0234460042	0.0234460042	0.0234460042	0.0128724692	0.0128724692	0.0128724692	0.0128724692	0.0213065902	0.0213065902
5	0.0165212405	0.0100941552	0.0134026652	0.0134026652	0.0244090660	0.0244090660	0.0244090660	0.0174195788	0.0174195788	0.0174195788	0.0174195788	0.0250478552	0.0250478552
6	0.0312047458	0.0241732202	0.0316551315	0.0316551315	0.0322923692	0.0322923692	0.0322923692	0.0261005783	0.0261005783	0.0261005783	0.0261005783	0.0304976568	0.0304976568
7	0.0398082603	0.0390974746	0.0481531313	0.0481531313	0.0302344914	0.0302344914	0.0302344914	0.0420450985	0.0420450985	0.0420450985	0.0420450985	0.0339947725	0.0339947725
8	0.0482864956	0.0528758381	0.0535145983	0.0535145983	0.0386071681	0.0386071681	0.0386071681	0.0556119122	0.0556119122	0.0556119122	0.0556119122	0.0383435322	0.0383435322
9	0.0472316355	0.0493101459	0.0541442978	0.0541442978	0.0454144773	0.0454144773	0.0454144773	0.0647383083	0.0647383083	0.0647383083	0.0647383083	0.0447350945	0.0447350945
10	0.0521292001	0.0488627065	0.0570682751	0.0570682751	0.0533197396	0.0533197396	0.0533197396	0.0711110358	0.0711110358	0.0711110358	0.0711110358	0.0517738130	0.0517738130
11	0.0559204481	0.0513700269	0.0575854739	0.0575854739	0.0576707709	0.0576707709	0.0576707709	0.0730230234	0.0730230234	0.0730230234	0.0730230234	0.0557712484	0.0557712484
12	0.0572822100	0.0533048469	0.0582753930	0.0582753930	0.0549541212	0.0549541212	0.0549541212	0.0731872952	0.0731872952	0.0731872952	0.0731872952	0.0571435296	0.0571435296
13	0.0592008057	0.0551586141	0.0599414146	0.0599414146	0.0541541840	0.0541541840	0.0541541840	0.0739324454	0.0739324454	0.0739324454	0.0739324454	0.0567014536	0.0567014536
14	0.0615145144	0.0595500442	0.0635019874	0.0635019874	0.0570747392	0.0570747392	0.0570747392	0.0746488056	0.0746488056	0.0746488056	0.0746488056	0.0567500887	0.0567500887
15	0.0647783324	0.0662712693	0.0683897966	0.0683897966	0.0551925339	0.0551925339	0.0551925339	0.0704234655	0.0704234655	0.0704234655	0.0704234655	0.0578234055	0.0578234055
16	0.0713500739	0.0764876319	0.0772110428	0.0772110428	0.0551956709	0.0551956709	0.0551956709	0.0628601912	0.0628601912	0.0628601912	0.0628601912	0.0577540296	0.0577540296
17	0.0754978425	0.0847160034	0.0792545794	0.0792545794	0.0557979766	0.0557979766	0.0557979766	0.0534712990	0.0534712990	0.0534712990	0.0534712990	0.0562910814	0.0562910814
18	0.0693763461	0.0821220539	0.0693254052	0.0693254052	0.0501011685	0.0501011685	0.0501011685	0.0436895095	0.0436895095	0.0436895095	0.0436895095	0.0527021980	0.0527021980
19	0.0542187052	0.0620982513	0.0521045300	0.0521045300	0.0459665909	0.0459665909	0.0459665909	0.0363413126	0.0363413126	0.0363413126	0.0363413126	0.0502215100	0.0502215100
20	0.0432143461	0.0459015588	0.0390794599	0.0390794599	0.0462959768	0.0462959768	0.0462959768	0.0312048570	0.0312048570	0.0312048570	0.0312048570	0.0467116534	0.0467116534
21	0.0358137860	0.0372595462	0.0311015284	0.0311015284	0.0418602463	0.0418602463	0.0418602463	0.0261242877	0.0261242877	0.0261242877	0.0261242877	0.0421311043	0.0421311043
22	0.0294294934	0.0312744978	0.0249803003	0.0249803003	0.0366496745	0.0366496745	0.0366496745	0.0215822587	0.0215822587	0.0215822587	0.0215822587	0.0381387483	0.0381387483
23	0.0223450238	0.0235734666	0.0182964081	0.0182964081	0.0347517842	0.0347517842	0.0347517842	0.0189759266	0.0189759266	0.0189759266	0.0189759266	0.0342326572	0.0342326572
24	0.0179418099	0.0169198902	0.0133194323	0.0133194323	0.0310595247	0.0310595247	0.0310595247	0.0157396039	0.0157396039	0.0157396039	0.0157396039	0.0307625891	0.0307625891

Source: Statewide averages developed from Indiana Department of Transportation traffic count data.

Indiana Default Hourly Distribution Factors for Road Type 3 – Rural Unrestricted Access:

Hour	Source Types												
	11	21	31	32	41	42	43	51	52	53	54	61	62
1	0.0040299464	0.0073183989	0.0054636028	0.0054636028	0.0036998387	0.0036998387	0.0036998387	0.0043986387	0.0043986387	0.0043986387	0.0043986387	0.0164160879	0.0164160879
2	0.0040299464	0.0041131835	0.0034619242	0.0034619242	0.0045536477	0.0045536477	0.0045536477	0.0041872686	0.0041872686	0.0041872686	0.0041872686	0.0167510731	0.0167510731
3	0.0041817017	0.0032797517	0.0030691885	0.0030691885	0.0046485153	0.0046485153	0.0046485153	0.0073497934	0.0073497934	0.0073497934	0.0073497934	0.0165479051	0.0165479051
4	0.0053114356	0.0057247729	0.0048082254	0.0048082254	0.0039844417	0.0039844417	0.0039844417	0.0084039684	0.0084039684	0.0084039684	0.0084039684	0.0195836328	0.0195836328
5	0.0140963815	0.0151258840	0.0143177758	0.0143177758	0.0082534864	0.0082534864	0.0082534864	0.0153176438	0.0153176438	0.0153176438	0.0153176438	0.0258467673	0.0258467673
6	0.0292719118	0.0316782840	0.0354335195	0.0354335195	0.0293141068	0.0293141068	0.0293141068	0.0299744215	0.0299744215	0.0299744215	0.0299744215	0.0344245647	0.0344245647
7	0.0397598894	0.0468455516	0.0516314034	0.0516314034	0.0496157860	0.0496157860	0.0496157860	0.0557776279	0.0557776279	0.0557776279	0.0557776279	0.0440469233	0.0440469233
8	0.0448163995	0.0633910409	0.0636260878	0.0636260878	0.0768428043	0.0768428043	0.0768428043	0.0778885464	0.0778885464	0.0778885464	0.0778885464	0.0512793380	0.0512793380
9	0.0370114322	0.0460357746	0.0558633273	0.0558633273	0.1049236315	0.1049236315	0.1049236315	0.0853025536	0.0853025536	0.0853025536	0.0853025536	0.0568238265	0.0568238265
10	0.0416989849	0.0427840868	0.0547852386	0.0547852386	0.1065363817	0.1065363817	0.1065363817	0.0879727734	0.0879727734	0.0879727734	0.0879727734	0.0599756501	0.0599756501
11	0.0509391967	0.0444183487	0.0568454275	0.0568454275	0.1186794422	0.1186794422	0.1186794422	0.0886336394	0.0886336394	0.0886336394	0.0886336394	0.0633505956	0.0633505956
12	0.0563855259	0.0512966366	0.0618918527	0.0618918527	0.1154539418	0.1154539418	0.1154539418	0.0859045570	0.0859045570	0.0859045570	0.0859045570	0.0635864154	0.0635864154
13	0.0638721209	0.0537246907	0.0610818211	0.0610818211	0.0999905132	0.0999905132	0.0999905132	0.0858537212	0.0858537212	0.0858537212	0.0858537212	0.0644099711	0.0644099711
14	0.0708697265	0.0545001954	0.0632013074	0.0632013074	0.0864244379	0.0864244379	0.0864244379	0.0852196109	0.0852196109	0.0852196109	0.0852196109	0.0637040231	0.0637040231
15	0.0774628513	0.0656899700	0.0681384267	0.0681384267	0.0592922873	0.0592922873	0.0592922873	0.0774551039	0.0774551039	0.0774551039	0.0774551039	0.0609657913	0.0609657913
16	0.0849155229	0.0775929037	0.0765115831	0.0765115831	0.0295038421	0.0295038421	0.0295038421	0.0663381066	0.0663381066	0.0663381066	0.0663381066	0.0570058311	0.0570058311
17	0.0916096179	0.0871890696	0.0796014405	0.0796014405	0.0317806660	0.0317806660	0.0317806660	0.0433522764	0.0433522764	0.0433522764	0.0433522764	0.0517440242	0.0517440242
18	0.0855899909	0.0856725476	0.0737419189	0.0737419189	0.0184043260	0.0184043260	0.0184043260	0.0290727541	0.0290727541	0.0290727541	0.0290727541	0.0467760851	0.0467760851
19	0.0685259502	0.0656330958	0.0545272751	0.0545272751	0.0120481928	0.0120481928	0.0120481928	0.0187744815	0.0187744815	0.0187744815	0.0187744815	0.0413186686	0.0413186686
20	0.0503658989	0.0457301992	0.0390975413	0.0390975413	0.0118584575	0.0118584575	0.0118584575	0.0129711680	0.0129711680	0.0129711680	0.0129711680	0.0364127078	0.0364127078
21	0.0353421239	0.0400621944	0.0294058171	0.0294058171	0.0096765013	0.0096765013	0.0096765013	0.0106166656	0.0106166656	0.0106166656	0.0106166656	0.0318882915	0.0318882915
22	0.0217853168	0.0289018238	0.0218457686	0.0218457686	0.0061663979	0.0061663979	0.0061663979	0.0079972816	0.0079972816	0.0079972816	0.0079972816	0.0290264055	0.0290264055
23	0.0119380838	0.0205028665	0.0136731866	0.0136731866	0.0048382506	0.0048382506	0.0048382506	0.0061564888	0.0061564888	0.0061564888	0.0061564888	0.0255574344	0.0255574344
24	0.0061882440	0.0127827290	0.0079763402	0.0079763402	0.0035101034	0.0035101034	0.0035101034	0.0050809093	0.0050809093	0.0050809093	0.0050809093	0.0225579868	0.0225579868

Source: Statewide averages developed from Indiana Department of Transportation traffic count data

Indiana Default Hourly Distribution Factors for Road Type 4—Urban Restricted Access:

Hour	Source Types												
	11	21	31	32	41	42	43	51	52	53	54	61	62
1	0.0114838630	0.0104500369	0.0090397680	0.0090397680	0.0186488577	0.0186488577	0.0186488577	0.0090968023	0.0090968023	0.0090968023	0.0090968023	0.0194173119	0.0194173119
2	0.0071800855	0.0062500477	0.0056304309	0.0056304309	0.0163411464	0.0163411464	0.0163411464	0.0080102618	0.0080102618	0.0080102618	0.0080102618	0.0198708197	0.0198708197
3	0.0053691205	0.0049689741	0.0046493522	0.0046493522	0.0157775876	0.0157775876	0.0157775876	0.0078361983	0.0078361983	0.0078361983	0.0078361983	0.0186489893	0.0186489893
4	0.0073777516	0.0058427101	0.0058801326	0.0058801326	0.0161766037	0.0161766037	0.0161766037	0.0086827231	0.0086827231	0.0086827231	0.0086827231	0.0198231326	0.0198231326
5	0.0108139353	0.0098545059	0.0108999000	0.0108999000	0.0221330492	0.0221330492	0.0221330492	0.0117453229	0.0117453229	0.0117453229	0.0117453229	0.0232515449	0.0232515449
6	0.0235457656	0.0231603609	0.0263517526	0.0263517526	0.0299755654	0.0299755654	0.0299755654	0.0204013312	0.0204013312	0.0204013312	0.0204013312	0.0294638153	0.0294638153
7	0.04611747881	0.0495085217	0.0542414568	0.0542414568	0.0393812372	0.0393812372	0.0393812372	0.0435263184	0.0435263184	0.0435263184	0.0435263184	0.0375553768	0.0375553768
8	0.0567226756	0.0788353145	0.0674512195	0.0674512195	0.0503870867	0.0503870867	0.0503870867	0.0659533819	0.0659533819	0.0659533819	0.0659533819	0.0446175773	0.0446175773
9	0.0493171440	0.0638279223	0.0614111771	0.0614111771	0.0589556475	0.0589556475	0.0589556475	0.0756333178	0.0756333178	0.0756333178	0.0756333178	0.0515843704	0.0515843704
10	0.0406144957	0.0466481656	0.0536303211	0.0536303211	0.0581555587	0.0581555587	0.0581555587	0.0790728466	0.0790728466	0.0790728466	0.0790728466	0.0553194565	0.0553194565
11	0.0415130748	0.0428102606	0.0512594850	0.0512594850	0.0616027281	0.0616027281	0.0616027281	0.0824723032	0.0824723032	0.0824723032	0.0824723032	0.0583081277	0.0583081277
12	0.0465165969	0.0452333632	0.0529793024	0.0529793024	0.0644246353	0.0644246353	0.0644246353	0.0820640679	0.0820640679	0.0820640679	0.0820640679	0.0589378233	0.0589378233
13	0.0517959830	0.0478487216	0.0547982766	0.0547982766	0.0637644078	0.0637644078	0.0637644078	0.0808088903	0.0808088903	0.0808088903	0.0808088903	0.0575925555	0.0575925555
14	0.0566713893	0.0502151226	0.0576880799	0.0576880799	0.0625591325	0.0625591325	0.0625591325	0.0811795580	0.0811795580	0.0811795580	0.0811795580	0.0571667797	0.0571667797
15	0.0671882913	0.0580384620	0.0656779676	0.0656779676	0.0619482678	0.0619482678	0.0619482678	0.0795090490	0.0795090490	0.0795090490	0.0795090490	0.0573429674	0.0573429674
16	0.0810035452	0.0715596945	0.0786905659	0.0786905659	0.0609466141	0.0609466141	0.0609466141	0.0727723312	0.0727723312	0.0727723312	0.0727723312	0.0567213465	0.0567213465
17	0.0863864724	0.0838541123	0.0821371575	0.0821371575	0.0577256909	0.0577256909	0.0577256909	0.0563364761	0.0563364761	0.0563364761	0.0563364761	0.0551911545	0.0551911545
18	0.0843264717	0.0874512168	0.0756929494	0.0756929494	0.0510164625	0.0510164625	0.0510164625	0.0371719560	0.0371719560	0.0371719560	0.0371719560	0.0531125437	0.0531125437
19	0.0645951265	0.0604364374	0.0543673700	0.0543673700	0.0450990958	0.0450990958	0.0450990958	0.0249336618	0.0249336618	0.0249336618	0.0249336618	0.0487199307	0.0487199307
20	0.0469536991	0.0424749554	0.0373951308	0.0373951308	0.0384927066	0.0384927066	0.0384927066	0.0188134711	0.0188134711	0.0188134711	0.0188134711	0.0432101938	0.0432101938
21	0.0373781148	0.0353280630	0.0293181427	0.0293181427	0.0322318571	0.0322318571	0.0322318571	0.0162446774	0.0162446774	0.0162446774	0.0162446774	0.0390319248	0.0390319248
22	0.0316564842	0.0313403787	0.0249971308	0.0249971308	0.0282046747	0.0282046747	0.0282046747	0.0142456600	0.0142456600	0.0142456600	0.0142456600	0.0355118446	0.0355118446
23	0.0245992722	0.0251562568	0.0203505544	0.0203505544	0.0242700475	0.0242700475	0.0242700475	0.0124474209	0.0124474209	0.0124474209	0.0124474209	0.0317711657	0.0317711657
24	0.0198157539	0.0189063955	0.0154623663	0.0154623663	0.0217813392	0.0217813392	0.0217813392	0.0110419727	0.0110419727	0.0110419727	0.0110419727	0.0278292477	0.0278292477

Source: Statewide averages developed from Indiana Department of Transportation traffic count data.

Indiana Default Hourly Distribution Factors for Road Type 5--Urban Unrestricted Access:

Hour	Source Types													
	11	21	31	32	41	42	43	51	52	53	54	61	62	
1	0.0092279794	0.0085268711	0.0060669694	0.0060669694	0.0126828270	0.0126828270	0.0126828270	0.0037158531	0.0037158531	0.0037158531	0.0037158531	0.0106396358	0.0106396358	
2	0.0055316691	0.0048527626	0.0037675180	0.0037675180	0.0099485186	0.0099485186	0.0099485186	0.0038117041	0.0038117041	0.0038117041	0.0038117041	0.0124309233	0.0124309233	
3	0.0047273286	0.0037895145	0.0033129405	0.0033129405	0.0069482800	0.0069482800	0.0069482800	0.0044165887	0.0044165887	0.0044165887	0.0044165887	0.0121505035	0.0121505035	
4	0.0047017359	0.0044201159	0.0042394230	0.0042394230	0.0113599945	0.0113599945	0.0113599945	0.0056282193	0.0056282193	0.0056282193	0.0056282193	0.0144699998	0.0144699998	
5	0.0081859928	0.0079416389	0.0087215410	0.0087215410	0.0153898606	0.0153898606	0.0153898606	0.0086545038	0.0086545038	0.0086545038	0.0086545038	0.0210508569	0.0210508569	
6	0.0225361588	0.0203863353	0.0238668712	0.0238668712	0.0256929528	0.0256929528	0.0256929528	0.0191822890	0.0191822890	0.0191822890	0.0191822890	0.0299165403	0.0299165403	
7	0.0435184779	0.0478282898	0.0541952158	0.0541952158	0.0448331117	0.0448331117	0.0448331117	0.0418068371	0.0418068371	0.0418068371	0.0418068371	0.0436775030	0.0436775030	
8	0.0602121997	0.0721456866	0.0675347974	0.0675347974	0.0691895946	0.0691895946	0.0691895946	0.0731482386	0.0731482386	0.0731482386	0.0731482386	0.0588646976	0.0588646976	
9	0.0556311148	0.0567013667	0.0643660182	0.0643660182	0.0747059425	0.0747059425	0.0747059425	0.0880926125	0.0880926125	0.0880926125	0.0880926125	0.0640862636	0.0640862636	
10	0.0485821670	0.0466493163	0.0603283916	0.0603283916	0.0803995772	0.0803995772	0.0803995772	0.0921313810	0.0921313810	0.0921313810	0.0921313810	0.0680944168	0.0680944168	
11	0.0495985610	0.0468148434	0.0590657789	0.0590657789	0.0774061573	0.0774061573	0.0774061573	0.0943973720	0.0943973720	0.0943973720	0.0943973720	0.0703404942	0.0703404942	
12	0.0573050555	0.0516032787	0.0615645883	0.0615645883	0.0753332651	0.0753332651	0.0753332651	0.0911430924	0.0911430924	0.0911430924	0.0911430924	0.0698309800	0.0698309800	
13	0.0607752380	0.0555323143	0.0626732860	0.0626732860	0.0739763390	0.0739763390	0.0739763390	0.0895629476	0.0895629476	0.0895629476	0.0895629476	0.0685413889	0.0685413889	
14	0.0609214817	0.0562211160	0.0629887267	0.0629887267	0.0779993663	0.0779993663	0.0779993663	0.0912650000	0.0912650000	0.0912650000	0.0912650000	0.0671175363	0.0671175363	
15	0.0649907135	0.0607579027	0.0667909366	0.0667909366	0.0761037810	0.0761037810	0.0761037810	0.0905726397	0.0905726397	0.0905726397	0.0905726397	0.0651260481	0.0651260481	
16	0.0724418316	0.0715477952	0.0751790074	0.0751790074	0.0728035185	0.0728035185	0.0728035185	0.0775387708	0.0775387708	0.0775387708	0.0775387708	0.0605241028	0.0605241028	
17	0.0773519648	0.0803647101	0.0757034489	0.0757034489	0.0526405510	0.0526405510	0.0526405510	0.0464337395	0.0464337395	0.0464337395	0.0464337395	0.0557685235	0.0557685235	
18	0.0770777578	0.0832250581	0.0684911688	0.0684911688	0.0347686748	0.0347686748	0.0347686748	0.0260342365	0.0260342365	0.0260342365	0.0260342365	0.0506461891	0.0506461891	
19	0.0635977420	0.0637849687	0.0526386278	0.0526386278	0.0285090860	0.0285090860	0.0285090860	0.0173341336	0.0173341336	0.0173341336	0.0173341336	0.0402747366	0.0402747366	
20	0.0483079600	0.0462284324	0.0372839274	0.0372839274	0.0220585728	0.0220585728	0.0220585728	0.0112536468	0.0112536468	0.0112536468	0.0112536468	0.0310667712	0.0310667712	
21	0.0383158572	0.0386568197	0.0292289942	0.0292289942	0.0174082029	0.0174082029	0.0174082029	0.0076615624	0.0076615624	0.0076615624	0.0076615624	0.0268533367	0.0268533367	
22	0.0305027859	0.0325107827	0.0236169348	0.0236169348	0.0137124544	0.0137124544	0.0137124544	0.0062358957	0.0062358957	0.0062358957	0.0062358957	0.0231915644	0.0231915644	
23	0.0214502991	0.0236017051	0.0170601049	0.0170601049	0.0139442910	0.0139442910	0.0139442910	0.0053276381	0.0053276381	0.0053276381	0.0053276381	0.0193751364	0.0193751364	
24	0.0145073780	0.0159083762	0.0113147831	0.0113147831	0.0121850602	0.0121850602	0.0121850602	0.0046510979	0.0046510979	0.0046510979	0.0046510979	0.0159618330	0.0159618330	

Source: Statewide averages developed from Indiana Department of Transportation traffic count data.

Appendix G

Indiana Default Daily Distribution Factors:

monthID	dayID	
	2	5
1	0.2325411725	0.7674588275
2	0.2380547378	0.7619452622
3	0.2393402049	0.7606597951
4	0.2396052454	0.7603947546
5	0.2484757701	0.7515242299
6	0.2489743665	0.7510256335
7	0.2481153021	0.7518846979
8	0.2527028648	0.7472971352
9	0.2496078420	0.7503921580
10	0.2462808693	0.7537191307
11	0.2439742406	0.7560257594
12	0.2258784720	0.7741215280

Source: Statewide averages developed from Indiana Department of Transportation traffic count data.

Appendix H

Indiana Default Monthly Distribution Factors:

monthID	monthVMTFraction
1	0.0733424010
2	0.0693661929
3	0.0827036024
4	0.0831789580
5	0.0891346903
6	0.0888150873
7	0.0907968617
8	0.0918542094
9	0.0854175366
10	0.0875162272
11	0.0812354405
12	0.0766387926

Source: Statewide averages developed from Indiana Department of Transportation traffic count data.

Appendix I

Delaware County Ramp Fractions:

Road Type	Ramp Fraction
2	1.3%
4	12.3%

Source: Analysis of VHT from the Muncie travel demand model.

Appendix B

Delaware County Area Interagency Consultation Group Meeting Minutes/Summary

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Interagency Consultation Group (ICG) Conference Call Minutes

For the MOBILE6.2 to MOVES MVEB Replacement Update Related to the Delaware County Maintenance Area under the 1997 8-Hour Ozone Standard

ICG Conference Call Date and Time

- May 30, 2012 at 10am Eastern

ICG Attendees

- Shawn Seals (IDEM), Patricia Morris (EPA), Steve Smith (INDOT), Larry Heil (FHWA), Greg Katter (INDOT), Hugh Smith (DMMPC), Marta Moody (DMMPC), and Jay Mitchell (INDOT)

ICG Discussion Topics and Conclusions

1. For the Ozone MVEB Replacement submittal, various mobile source margins of safety were discussed.
 - A. After discussion, the consensus of the ICG was that as long as the a 15% mobile source margin of safety for VOC and NO_x emissions does not result in an exceedance of the all sources margins of safety, it was reasonable and appropriate for inclusion in MVEB Replacement submittal. The attached spreadsheet demonstrates that a 15% mobile source margin of safety for VOC and NO_x emissions fall well below the all sources margins of safety and, as such, will be reflected in the Ozone MVEB Replacement submittal.

Appendix C

Delaware County Area Public Participation Documentation

- **Legal Notice of Public Hearing**
- **Legal Notice Newspaper Correction**
- **Publisher's Claims**

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LEGAL NOTICE OF PUBLIC HEARING

Motor Vehicle Emission Budgets Replacement Update to the Maintenance Areas of Delaware County, Indiana and South Bend-Elkhart, Indiana for the 1997 8-Hour Ozone Standard

After December 1, 2012, legal notices for public hearings shall no longer be published in newspapers, but will be found on the Indiana Department of Environmental Management web site at: <http://www.in.gov/idem/5474.htm>.

Notice is hereby given under 40 CFR 51.102 that the Indiana Department of Environmental Management (IDEM) is accepting written comment and providing an opportunity for public hearing regarding the Motor Vehicle Emission Budget (MVEB) replacement updates to the Delaware County, Indiana and South Bend-Elkhart, Indiana maintenance areas under the 1997 8-hour ozone standard. Onroad emissions for the original submittals were calculated using the MOBILE6.2 mobile model and are now being replaced with the United States Environmental Protection Agency's (U.S. EPA's) recently adopted Motor Vehicle Emissions Simulator (MOVES) mobile model. All interested persons are invited and will be given reasonable opportunity to express their views concerning the submittal of the proposed MVEB replacement updates to the maintenance areas of Delaware County, Indiana and South Bend-Elkhart, Indiana.

The purpose of this notice is to solicit public comment on Indiana's proposed MVEB replacement updates. The Delaware County, Indiana and South Bend-Elkhart, Indiana areas were designated as nonattainment for the 1997 8-hour ozone standard and subject to the requirements of Section 172 of the Clean Air Act (CAA). One of the compliance requirements mandated by Section 175A(b) of the CAA, is the development of a plan demonstrating that ozone maintenance areas will continue to meet the 8-hour ozone standard for the next ten years, which includes MVEBs for onroad sources, beyond the current maintenance period. This submittal of the proposed MVEB replacement updates to the maintenance areas of Delaware County, Indiana and South Bend-Elkhart, Indiana is being drafted and submitted consistent with U.S. EPA guidance. Upon completion of this public notice process, the MOBILE6.2-based to MOVES-based MVEB replacement updates will be submitted to U.S. EPA for approval into the appropriate State Implementation Plans.

Copies of the draft documents will be available on or before June 18, 2012, to any person upon request and at the following locations:

- Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, 100 North Senate Avenue, 10th Floor-East Wing, Indianapolis, Indiana
- Indianapolis-Marion County Public Library-West Indianapolis Branch, 1216 South Kappes Street, Indianapolis, Indiana

- Elkhart Public Library, 300 South 2nd Street, Elkhart, Indiana
- Goshen Public Library, 601 South 5th Street, Goshen, Indiana

The draft documents will also be available on the following web page:

<http://www.in.gov/idem/4658.htm>

An electronic version of all MOVES mobile model input and output files will be available at the public hearing, if held, or upon request.

Any person may submit written comments on the MVEB replacement updates to the maintenance areas of Delaware County, Indiana and South Bend-Elkhart, Indiana on or before July 20, 2012. Written comments should be directed to Mr. Shawn Seals, Mail Code 61-50, Office of Air Quality, Indiana Department of Environmental Management, 100 North Senate Avenue, Indianapolis, Indiana 46204; or fax (317) 233-5967; or email at SSeals@idem.in.gov. Interested parties may also present oral or written comments at the public hearing, if held.

A public hearing on the MVEB replacement updates to the maintenance areas of Delaware County, Indiana and South Bend-Elkhart, Indiana will be held if a public hearing request is received by July 11, 2012. A hearing has been scheduled for July 18, 2012. The hearing will convene at 6:00 p.m. local time at the Indianapolis-Marion County Library-West Branch, 1216 South Kappes Street, Indianapolis, Indiana. If a request for a public hearing is not received by July 11, 2012, the hearing will be cancelled. Interested parties can check the online IDEM calendar at <http://www.in.gov/idem/calendar.html> or contact Mr. Shawn Seals at the provided contact information after July 11, 2012, to see if the hearing has been cancelled.

Individuals requiring reasonable accommodations for participation in this hearing, if held, should contact the IDEM Americans with Disabilities Act (ADA) coordinator at:

Attn: ADA Coordinator
 Indiana Department of Environmental Management – Mail Code 50-10
 100 North Senate Avenue
 Indianapolis, IN 46204-2251

Or call (317) 233-1785 (voice) or (317) 232-6565 (TDD). Please provide a minimum of 72 hours notification.

LEGAL NOTICE NEWSPAPER CORRECTION

CORRECTION

The Indiana Department of Environmental Management (IDEM) submitted a legal notice that was published in this newspaper on June 18, 2012, containing one incorrect date. The following correction concerns Motor Vehicle Emission Budgets Replacement Update to the Maintenance Areas of Delaware County, Indiana and South Bend-Elkhart, Indiana for the 1997 8-Hour Ozone Standard. The corrected sentence is:

“Copies of the draft documents will be available on or Before June 20, 2012, to any person upon request at the following locations:”

PUBLISHER'S CLAIMS

Claims documents can be found on the following pages

Date of Srvc: 6/18/12 (Date & Descr = 20 Char. Max.) Other Descr: Public Hearing
Amt 127,06 Fund 62230 Acct 599030 Src. Type 0000_0
Prog: 27013 Dept: 197_049 Edgt. Ref: 2013 PCBU: 00495
Proj Grant: 49540913105_0000_0 Aciv. ID: 000090_0

(G/L Only)
Anlys. Type: --- Prog. Int: CR Date: 7/6/2012 Acct. Int: --- Date: ---

INDIANAPOLIS STAR AND NEWS, INDIANAPOLIS, IN

LEGAL NOTICE OF PUBLIC HEARING

Motor Vehicle Emission Budgets Replacement Update to the Maintenance Areas of Delaware County, Indiana and South Bend-Elkhart, Indiana for the 1997 8-Hour Ozone Standard

After December 1, 2012, legal notices for public hearings shall no longer be published in newspapers, but will be found on the Indiana Department of Environmental Management web site at:

<http://www.in.gov/Idem/5474.htm>.

Notice is hereby given under 40 CFR 51.102 that the Indiana Department of Environmental Management (IDEM) is accepting written comment and providing an opportunity for public hearing regarding the Motor Vehicle Emission Budget (MVEB) replacement updates to the Delaware County, Indiana and South Bend-Elkhart, Indiana maintenance areas under the 1997 8-hour ozone standard. Onroad emissions for the original submittals were calculated using the MOBILE2 mobile model and are now being replaced with the United States Environmental Protection Agency's (U.S. EPA's) recently adopted Motor Vehicle Emissions Simulator (MOVES) mobile model. All interested persons are invited and will be given reasonable opportunity to express their views concerning the submittal of the proposed MVEB replacement updates to the maintenance areas of Delaware County, Indiana and South Bend-Elkhart, Indiana.

The purpose of this notice is to solicit public comment on Indiana's proposed MVEB replacement updates. The Delaware County, Indiana and South Bend-Elkhart, Indiana areas were designated as nonattainment for the 1997 8-hour ozone standard and subject to the requirements of Section 172 of the Clean Air Act (CAA). One of the compliance requirements mandated by Section 175A(b) of the CAA is the development of a plan demonstrating that ozone maintenance areas will continue to meet the 8-hour ozone standard for the next ten years, which includes MVEBs for onroad sources, beyond the current maintenance period. This submittal of the proposed MVEB replacement updates to the maintenance areas of Delaware County, Indiana and South Bend-Elkhart, Indiana is being drafted and submitted consistent with U.S. EPA guidance. Upon completion of this public notice process, the MOBILE2-based to MOVES-based MVEB replacement updates will be submitted to U.S. EPA for approval into the appropriate State Implementation Plans.

Copies of the draft documents will be available on or before July 11, 2012, to any person upon request and at the following locations:

- Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, 100 North Senate Avenue, 10th Floor-East Wing, Indianapolis, Indiana
- Indianapolis-Marion County Public Library-West Indianapolis Branch, 1216 South Kappes Street, Indianapolis, Indiana
- Elkhart Public Library, 300 South 2nd Street, Elkhart, Indiana
- Goshen Public Library, 601 South 5th Street, Goshen, Indiana

The draft documents will also be available on the following web page:

<http://www.in.gov/Idem/4658.htm>

An electronic version of all MOVES mobile model input and output files will be available at the public hearing, if held, or upon request.

Any person may submit written comments on the MVEB replacement updates to the maintenance areas of Delaware County, Indiana and South Bend-Elkhart, Indiana on or before July 20, 2012. Written comments should be directed to Mr. Shawn Seals, Mail Code 61-50, Office of Air Quality, Indiana Department of Environmental Management, 100 North Senate Avenue, Indianapolis, Indiana 46204; or fax (317) 233-5967; or email at SSeals@idem.in.gov. Interested parties may also present oral or written comments at the public hearing, if held.

A public hearing on the MVEB replacement updates to the maintenance areas of Delaware County, Indiana and South Bend-Elkhart, Indiana will be held if a public hearing request is received by July 11, 2012. A hearing has been scheduled for July 18, 2012. The hearing will convene at 6:00 p.m. local time at the Indianapolis-Marion County Library-West Branch, 1216 South Kappes Street, Indianapolis, Indiana. If a request for a public hearing is not received by July 11, 2012, the hearing will be cancelled. Interested parties can check the online IDEM calendar at <http://www.in.gov/Idem/calendar.html> or contact Mr. Shawn Seals at the provided contact information after July 11, 2012, to see if the hearing has been cancelled.

Individuals requiring reasonable accommodations for participation in this hearing, if held, should contact the IDEM Americans with Disabilities Act (ADA) coordinator at:

Attn: ADA Coordinator
Indiana Department of Environmental Management - Mail Code 50-10
100 North Senate Avenue
Indianapolis, IN 46204-2251

Or call (317) 233-1785 (voice) or (317) 232-6585 (TDD). Please provide a minimum of 72 hours notification.

(S - 6/18/12 - 5961471)

IND DEPT OF ENVIRONMENTAL MANA
MARION COUNTY, INDIANA

To: INDIANAPOLIS NEWSPAPERS
307 N PENNSYLVANIA ST - PO BOX 145
INDIANAPOLIS, IN 46206-0145

PUBLISHER'S CLAIM

LINE COUNT

Display Matter - (Must not exceed two actual lines, neither of which shall total more than four solid lines of the type in which the body of the advertisement is set). - number of equivalent lines
Head - Number of lines
Body - Number of lines
Tail - Number of lines
Total number of lines in notice

RECEIVED	
JUN 28 2012	
State of Indiana Department of Environmental Management Office of Air Quality	

COMPUTATION OF CHARGES

16.0 lines 2.0 columns wide equals 32.0 equivalent lines at .471 cents per line	\$ 15.06
Additional charge for notices containing rule and figure work (50 per cent of above amount)	_____
Charges for extra proofs of publication (\$1.00 for each proof in excess of two)	.00
TOTAL AMOUNT OF CLAIM	\$ 15.06

DATA FOR COMPUTING COST

Width of single column 5.8 ems Size of type 7
Number of insertions 1.0

Pursuant to the provisions and penalties of IC 5-11-10-1, I hereby certify that the foregoing account is just and correct, that the amount claimed is legally due, after allowing all just credits, and that no part of the same has been paid.

I also certify that the printed matter attached hereto is a true copy, of the same column width and type size, which was duly published in said paper 1 times. The dates of publication being between the dates of:

06/20/2012 and 06/20/2012

Additionally, the statement checked below is true and correct:

- Newspaper does not have a Web site.
- Newspaper has a Web site and this public notice was posted on the same day as it was published in the newspaper
- Newspaper has a Web site, but due to a technical problem or error, public notice was posted on _____
- Newspaper has a Web site but refuses to post the public notice.

Kerby Dodson

DATE: 06/20/2012

Title: Clerk

JUN 26 '12 PM 0:16

Date of Srvc: 6/18/12 (Date & Dscrp = 30 Char. Max.)
Other Dscrp: Public Hearing
Amt. 15.06 Fund 62230 Acct 599030 Src. Type 00000
Prog. 27013 Dept: 197049 Bdgt. Ref: 2013 PCBU: 00405
Proj Grant 49540913105000 Actv. ID: 0000900
(G/L Only)
Anlys. Type: CP Date: 7/6/12 Acct. Int: _____ Date: _____

~~Date of Srvc: _____ (Date & Dscrp = 30 Char. Max.)
Other Dscrp: _____
Date of Srvc: 6/18/12 (Date & Dscrp = 30 Char. Max.)
Other Dscrp: Public Hearing
Amt 15.06 Fund 62230 Bdgt. Ref: 2013 Src. Type 00495
Prog: _____ Dept: 197049 Actv. ID: _____ PCBU: 00495
Proj Grant: _____
(G/L Only) _____
(Anlys. Type: _____ Date: 7/6/12 Acct. Int: _____ Date: _____
Anlys. Type: _____ Prog. Int: _____ Date: _____ Acct. Int: _____ Date: _____~~

INDIANAPOLIS STAR AND NEWS, INDIANAPOLIS, IN

CORRECTION

The Indiana Department of Environmental Management (IDEM) submitted a legal notice that was published in this newspaper on June 18, 2012, containing one incorrect date. The following correction concerns Motor Vehicle Emission Budgets Replacement Update to the Maintenance Areas of Delaware County, Indiana and South Bend-Elkhart, Indiana for the 1997 8-Hour Ozone Standard. The corrected sentence is:
Copies of the draft documents will be available on or before June 20, 2012, to any person upon request at the following locations:
(S - 6/20/12; 6/26/12 - 5983049)

Ad placed by Catherine Mitchell, Adm. Assistant OAG

Form Prescribed by State Board of Accounts

General Form No. 99P (Rev. 2002)

Ind. Dept. of Environmental Management (Governmental Unit)

To: The Star Press

MANAGEMENT Correction Ad for MVEB Replacement Updates to Maintenance Areas of Delaware County

Muncie, IN

PUBLISHER'S CLAIM

Display Matter (Must not exceed two actual lines, neither of which shall total more than four solid lines of the type in which the body of the advertisement is set) number of equivalent lines

JUL 29 12:21 PM '12

Head - number of lines

Body - number of lines

Tail - number of lines

Total number of lines in notice

26

COMPUTATION OF CHARGES

lines, columns wide equals 26 equivalent lines at 0.2507 per line @ 1 days,

\$ 6.52

Website Publication

Charge for proof(s) of publication

TOTAL AMOUNT OF CLAIM

\$ 6.52

DATA FOR COMPUTING COST

Width of single column 6.3 ems

Number of insertions 1

Size of type 7 point



Pursuant to the provisions and penalties of Ch. 155, Acts 1953,

I hereby certify that the foregoing account is just and correct, that the amount claimed is legally due, after allowing all just credits, and that no part of the same has been paid.

[Signature of Josie M. James]

Date: 06/20/2012

Title: Clerk

PUBLISHER'S AFFIDAVIT

State of Indiana)

) ss

Delaware County)

Personally appeared before me, a notary public in and for said county and state, the undersigned Josie M. James who,

being duly sworn, says that She is clerk of The Star Press newspaper of general circulation printed and published in the English language in the city

of Muncie in state and county aforesaid, and that the printed matter attached hereto is a true copy, which was duly published in said paper for 1

time the dates of publication being as follows:

JUNE 20, 2012

CORRECTION The Indiana Department of Environmental Management (IDEM) submitted a legal notice that was published in this newspaper on June 18, 2012, containing one incorrect date. The following correction concerns Motor Vehicle Emission Budgets Replacement Update to the Maintenance Areas of Delaware County, Indiana and South Bend-Elkhart, Indiana for the 1997 8-Hour Ozone Standard. The corrected sentence is: "Copies of the draft documents will be available on or before June 20, 2012, to any person upon request at the following locations." S5992609

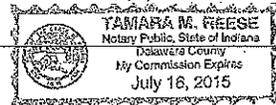
APPROVED BY C. Mitchell DATE 7-9-12 OFFICE OF AIR QUALITY

Subscribed and sworn to before me this 21 day of June 20 12

[Signature of Tamara M. Reese]

Notary Public

My Commission expires:



Claim No. _____ Warrant No. _____

IN FAVOR OF
THE STAR PRESS
A Gannett Newspaper
345 S. High Street, Muncie, Indiana

\$ _____

On Account of Appropriation For

FED. ID
#35-2061385

Allowed _____, 20____
In the sum of \$ _____

I have examined the within claim and hereby certify as follows:

That it is in proper form.

This it is duly authenticated as required by law.

That it is based upon statutory authority.

That it is apparently (correct) (incorrect)

LEGAL ADVERTISING TABLE SHOWING PRICE PER LINE AND PER INSERTION

Type	Size	1	2	3	4
6.3 Em Column					
No. of Insertions					
	5.5	0.316	0.473	0.631	0.788
	6	0.319	0.477	0.637	0.795
	6.5	0.268	0.400	0.534	0.667
	7	0.2507	0.3746	0.5001	0.6253
	7.5	0.232	0.347	0.463	0.578
	8	0.218	0.325	0.434	0.542
	9	0.193	0.289	0.386	0.481
	10	0.174	0.260	0.347	0.433
	12	0.145	0.217	0.289	0.361

Date of Svc: 6/20/12 (Date & Descr = 30 Char. Max.)
 Other Descr: Legal Ad

Amt 6.52 Fund 66230 Acct 599030 Src. Type 000%

Prog: 27013 Dept: 107049 Bdg. Ref: 2013 PCBU: 0000

Proj Grant: 49540912105000 Act. ID: 000900

(G/L Only)
 Certify that the within claim is true and correct; that the services here-
 in itemized and that no change is made or will be ordered by me and date: _____ Date: _____
 Antys. _____

Handwritten notes at the top of the page, including "Table showing price per line and per insertion" and "Legal Advertising".

Ad placed by Catherine Mitchell, Adm. Assistant, OAS

180129

Form Prescribed by State Board of Accounts

General Form No. 99P (Rev. 2002)

Ind. Dept. of Environmental Management (Governmental Unit)

To: The Star Press

MANAGEMENT County, Indiana

Muncie, IN

MVEB Replacement Updates to MAINTENANCE

PUBLISHER'S CLAIM

LINE COUNT AREAS OF DELAWARE COUNTY

Display Matter (Must not exceed two actual lines, neither of which shall total more than four solid lines of the type in which the body of the advertisement is set) number of equivalent lines

Head - number of lines

Body - number of lines

Tail - number of lines

Total number of lines in notice

270

COMPUTATION OF CHARGES

lines, columns wide equals 270 equivalent

\$ 67.69

lines at 0.2507 per line @ 1 days,

Website Publication

LEGAL NOTICE OF PUBLIC HEARING

Motor Vehicle Emission Budgets Replacement Update to 4-Mile-1 of Delaware County, Indiana and South Bend-Elkhart 1997 8-hour Ozone Standard

After December 1, 2012, legal notices for public hearing published in newspapers, but will be found on the Environmental Management web site at: http://www.i

Notice is hereby given under 40 CFR 51.102 that the Indiana Department of Environmental Management (IDEM) is accepting written comments for public hearing regarding the Motor Vehicle Emission Budgets Replacement Update to the Delaware County, Indiana and South Bend-Elkhart, Indiana maintenance areas under the 1997 8-hour ozone standard. The original submissions were calculated using the MOVES mobile model and are now being replaced with the United States Environmental Protection Agency's (U.S. EPA's) recently adopted Motor Vehicle Emission Budgets Replacement Update to the Delaware County, Indiana and South Bend-Elkhart, Indiana maintenance areas under the 1997 8-hour ozone standard. All interested persons are invited to submit written comments to the IDEM by July 20, 2012. The hearing will be held on July 18, 2012 at the Marion County Public Library, West Branch, 1216 South Kappes Street, Indianapolis, Indiana. If a request for a public hearing is not received by July 11, 2012, the hearing will be cancelled. Interested parties can check the online calendar at: http://www.in.gov/idem/calendar.html or contact Mr. Shawn Seals at (317) 233-5987 for more information.

The purpose of this notice is to solicit public comment on the proposed MVEB replacement updates to the Delaware County, Indiana and South Bend-Elkhart, Indiana maintenance areas under the 1997 8-hour ozone standard. The original submissions were calculated using the MOVES mobile model and are now being replaced with the United States Environmental Protection Agency's (U.S. EPA's) recently adopted Motor Vehicle Emission Budgets Replacement Update to the Delaware County, Indiana and South Bend-Elkhart, Indiana maintenance areas under the 1997 8-hour ozone standard. All interested persons are invited to submit written comments to the IDEM by July 20, 2012. The hearing will be held on July 18, 2012 at the Marion County Public Library, West Branch, 1216 South Kappes Street, Indianapolis, Indiana. If a request for a public hearing is not received by July 11, 2012, the hearing will be cancelled. Interested parties can check the online calendar at: http://www.in.gov/idem/calendar.html or contact Mr. Shawn Seals at (317) 233-5987 for more information.

Copies of the draft documents will be available on or before July 11, 2012 at the following locations:

- Indiana Department of Environmental Management, Office of Air Quality, 100 North Senate Avenue, 10th Floor, East Wing, Indianapolis, Indiana
- Indianapolis-Marion County Public Library-West Branch, 1216 South Kappes Street, Indianapolis, Indiana
- Elkhart Public Library, 300 South 2nd Street, Elkhart, IN
- Goshen Public Library, 601 South 5th Street, Goshen, IN

The draft documents will also be available on the following website: http://www.in.gov/idem/4658.htm

An electronic version of all MOVES mobile model input files will be available at the public hearing, if held, or upon request.

Any person may submit written comments on the MVEB replacement updates to the Delaware County, Indiana and South Bend-Elkhart, Indiana maintenance areas under the 1997 8-hour ozone standard on or before July 20, 2012. Written comments should be submitted to: Shawn Seals, Mail Code 61-50, Office of Air Quality, Indiana Department of Environmental Management, 100 North Senate Avenue, Indianapolis, IN 46204-2251; or email at: sseals@idem.in.gov. There will be no charge for the submission of comments. If a public hearing is held, interested parties can check the online calendar at: http://www.in.gov/idem/calendar.html or contact Mr. Shawn Seals at (317) 233-5987 for more information.

A public hearing on the MVEB replacement updates to the Delaware County, Indiana and South Bend-Elkhart, Indiana maintenance areas under the 1997 8-hour ozone standard is being held on July 18, 2012 at the Marion County Public Library, West Branch, 1216 South Kappes Street, Indianapolis, Indiana. The hearing will convene at 6:00 p.m. local time. If a request for a public hearing is not received by July 11, 2012, the hearing will be cancelled. Interested parties can check the online calendar at: http://www.in.gov/idem/calendar.html or contact Mr. Shawn Seals at (317) 233-5987 for more information.

Individuals requiring reasonable accommodations for participation in this hearing, if held, should contact the IDEM Americans with Disabilities Act Coordinator at: (317) 233-5987.

Indiana Department of Environmental Management - Attn: ADA Coordinator - 100 North Senate Avenue - Indianapolis, IN 46204-2251

For call (317) 233-1785 (voice) or (317) 232-6565 (TDD). Please call for more information.

RECEIVED JUL - 2 2012 STATE OF INDIANA DEPT. OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

\$ 67.69

of Ch. 155, Acts 1953,

account is just and correct, that the amount claimed is legally due, after allowing all just and proper credits and payments thereon.

Title: Clerk

PUBLISHER'S AFFIDAVIT

State of Indiana)

) ss

Delaware County)

Personally appeared before me, a notary public in and for said county and state, the undersigned Josie M. James who,

being duly sworn, says that she is clerk of The Star Press

newspaper of general circulation printed and published in the English language in the city

of Muncie in state and county aforesaid, and that the printed matter attached hereto is a

true copy, which was duly published in said paper for 1

time the dates of publication being as follows:

June 18, 2012

subscribed and sworn to before me this 18 day of June, 2012

Notary Public

TAMARA M. REESE Notary Public, State of Indiana Delaware County My Commission Expires July 16, 2015

APPROVED BY [Signature] DATE 7-9-12 OFFICE OF AIR QUALITY

FAVORABLE TO THE PLAINTIFFS

TABLE SHOWING PRICE PER LINE AND PER INSERTION

Type	Size	1	2	3	4
	5.5	0.316	0.473	0.631	0.788
	6	0.319	0.477	0.637	0.796
	6.5	0.268	0.400	0.534	0.667
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	10	0.174	0.260	0.347	0.438
	11	0.145	0.217	0.289	0.361

LEGAL ADVERTISING TABLE SHOWING PRICE PER LINE AND PER INSERTION

I have examined the within claim and hereby certify as follows:
 That it is in proper form.
 This it is duly authenticated as required by law.
 That it is based upon statutory authority.
 That it is apparently (correct) (incorrect)

Date of Srvc: 6/18/12 (Date & Descr = 30 Char. Max.)
 Other Descr: Legal Ad
 Airt: 67-69 Fund: 62230 Acct: 599030 Src. Type: 00000
 Prog: 27013 Dept: 540149 Bgt. Ref: 2013 FCBU: 00498
 Proj Grant: 49540912105000 Actv ID: 000900
 (G/L Only) I certify that the within claim is true and correct; that the services there-
 in itemized and for which charge is made were ordered by me and were
 necessary to the public business.
 Anlys. Type: _____ Prog. Int: 60 Date: 7/9/12 Acct. Int: _____ Date: _____

Claim No. _____ Warrant No. _____
 IN FAVOR OF
THE STAR PRESS
 A Gannett Newspaper
 345 S. High Street, Muncie, Indiana

On Account of Appropriation For
 FED. ID
 #35-2061385

Allowed _____, 20
 In the sum of \$ _____

STAR PRESS, MUNCIE, IN

LEGAL NOTICE OF PUBLIC HEARING

Motor Vehicle Emission Budgets Replacement Update to the Maintenance Areas of Delaware County, Indiana and South Bend-Elkhart, Indiana for the 1997 8-Hour Ozone Standard

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