



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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August 17, 2012

Ms. Susan Hedman
Regional Administrator
U.S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3950

Dear Ms. Hedman:

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

The Indiana Department of Environmental Management (IDEM) submits the enclosed MOBILE6.2 to Motor Vehicle Emissions Simulator (MOVES) Motor Vehicle Emissions Budget (MVEB) replacement update for the Delaware County maintenance area under the 1997 8-hour ozone standard. IDEM requests that the United States Environmental Protection Agency (U.S. EPA) process this final submittal for approval into Indiana's State Implementation Plan.

IDEM provided an opportunity for a public hearing on the MVEB replacement update to the Delaware County maintenance area if a public hearing request was received by July 11, 2012. A hearing was scheduled for July 20, 2012. No request for a public hearing was received and the hearing was cancelled. In addition, IDEM received no comments during the public notice process. Documents related to the public participation process are included in Appendix C of this submittal.

This MOBILE6.2 to MOVES MVEB replacement update incorporates onroad emission estimates and revised MVEBs using U.S. EPA's recently adopted MOVES model. The onroad emission estimates were calculated using the MOVES-based emission factors and data extracted from the Delaware County area's travel-demand model.

MVEBs are being revised in anticipation of the mandatory use of the MOVES model in future transportation conformity determinations. Preliminary use of the new model indicates that emission estimates can be considerably different than similar calculations using MOBILE6.2, which was used to create the MVEBs in the original ozone maintenance plan.

Onroad safety margins, established through the interagency consultation process, are included for nitrogen oxides (NO_x) and volatile organic compounds (VOCs). These onroad safety margins are allocated to onroad emission estimates in order to account for the wide array of assumptions that are factored into the calculation process. With the addition of onroad safety margins applied to mobile sources, the Delaware County maintenance area will continue to remain well below the overall safety margins for all sources. MVEBs are also constrained to ensure that total NO_x and VOC emissions (i.e., all source categories) do not exceed attainment year emissions, to ensure continued maintenance of the 1997 8-hour ozone standard.

This submittal consists of one (1) hard copy of the required documentation. An electronic version of the submittal in PDF format, that is identical to the hard copy, has been sent to Pamela Blakley, Chief of U.S. EPA Region 5's Control Strategies Section.

IDEM respectfully requests that U.S. EPA proceed with review of the MOBILE6.2 to MOVES MVEB replacement update and revised transportation conformity budgets and approval into Indiana's State Implementation Plan for the Delaware County Maintenance Area under the 1997 8-hour ozone standard. If you have any questions or need additional information, please contact Scott Deloney, Chief, Air Programs Branch, at (317) 233-5694.

Sincerely,



Keith Baugues
Assistant Commissioner
Office of Air Quality

KB/sad/sms

Enclosure:

Onroad Emissions MOBILE6.2 to MOVES Replacement Submittal for the Delaware County, Indiana Maintenance Area under the 1997 8-Hour Ozone Standard

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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

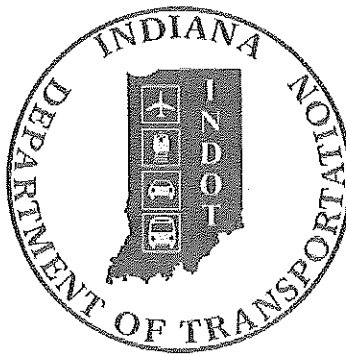
Delaware County Area MOVES Methodology

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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 | 11 | 21 | 31 | 32 | 41 | 42 | Source Types | | | | | | 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 | 0.0571325186 | 0.0764526251 | 0.0597118340 | 0.0575579884 | 0.0720873878 | | | | | |
| 4 | 0.1058454735 | 0.0534396902 | 0.0599809316 | 0.0567609029 | 0.0617369906 | 0.0523970560 | 0.0597397140 | 0.0474523026 | 0.0565046834 | 0.0756124785 | 0.0590556596 | 0.0564182312 | 0.0706589203 | | | | | |
| 5 | 0.0750909142 | 0.0551226485 | 0.0572355342 | 0.0592811747 | 0.0559170498 | 0.0474575929 | 0.0541080614 | 0.0429789769 | 0.0511778950 | 0.0684845018 | 0.0534884926 | 0.0489290859 | 0.0612802835 | | | | | |
| 6 | 0.0476805323 | 0.0539007748 | 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 | 0.0411073303 | 0.0489087688 | 0.0654479137 | 0.0511168262 | 0.0526288382 | 0.0659139597 | | | | | |
| 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 | 0.0313580350 | 0.0391491717 | 0.0523881239 | 0.0302729398 | 0.0478258601 | 0.0598985955 | | | | | |
| 12 | 0.0013011470 | 0.0545001844 | 0.0512364410 | 0.0481043173 | 0.0331924580 | 0.0489936472 | 0.0382933197 | 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 | 0.0316398801 | 0.0194774783 | 0.0291673253 | 0.0325145854 | 0.0462990441 | | | | | |
| 14 | 0.0002476898 | 0.0466386942 | 0.0419587737 | 0.0414201183 | 0.0364294706 | 0.0377746681 | 0.0430866340 | 0.0632656498 | 0.0364439725 | 0.0194691525 | 0.0347804437 | 0.0427077419 | 0.0462072388 | | | | | |
| 15 | 0.0001527705 | 0.0386158244 | 0.0387499584 | 0.0355029586 | 0.0283511969 | 0.0332950401 | 0.0210164622 | 0.0395649332 | 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 | 0.0259987277 | 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 | 0.0205906442 | 0.0138452217 | | | | | |
| 18 | 0.0000127409 | 0.0225700848 | 0.0212060968 | 0.0197238659 | 0.0201192241 | 0.0250480695 | 0.0266888558 | 0.0401959334 | 0.0193740288 | 0.0037212159 | 0.0155464816 | 0.0235865809 | 0.0100086460 | | | | | |
| 19 | 0.0000055369 | 0.0178900775 | 0.0166718984 | 0.0150120535 | 0.0225790392 | 0.0396610768 | 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 | 0.0180321679 | 0.0169844401 | 0.0212965445 | 0.0224413685 | 0.0208032932 | 0.0367430569 | 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 | 0.0173635700 | 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 | 0.0166391363 | 0.0194375881 | 0.0028947085 | | | | | |
| 25 | 0.0000000515 | 0.0045847363 | 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 | 0.0052086606 | 0.0114707358 | 0.0046271661 | 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 | 0.0022870992 | 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 | 0.0000000060 | 0.00142475101 | 0.0178577657 | 0.0163269779 | 0.0041641999 | 0.0025473919 | 0.0046291194 | 0.0021486392 | 0.0093642209 | 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 |
| Annual Populations | | | | | | | | | | | | | |
| 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:

| Indiana Datahub Hourly Distribution Factors for Road Type 2 - Rural Restricted Access | | | | | | | | | | | | | |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Hour | Source Types | | | | | | | | | | | | |
| | 11 | 21 | 31 | 32 | 41 | 42 | 43 | 51 | 52 | 53 | 54 | 61 | 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 | 0.0166212405 | 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 | 0.0620082513 | 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:

| Source Types | | | | | | | | | | | | | |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Hour | 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 | 0.0775959037 | 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 | 0.0063691205 | 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 | 0.0461747881 | 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 | 0.0466481655 | 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 | 0.0465166969 | 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 | 0.0517859830 | 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 | 0.0478262898 | 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 | 0.0640862836 | 0.0640862836 |
| 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 | 0.0573058055 | 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 | 0.0779993863 | 0.0779993863 | 0.0779993863 | 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 | 0.0159083752 | 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

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

RECEIVED

JUN 28 2012

LINE COUNT

Display Matter - (Must not exceed two actual lines, neither of which shall
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Head - Number of lines

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Tail - Number of lines

Total number of lines in notice

State of Indiana
Department of Environmental Management
Office of Air Quality

COMPUTATION OF CHARGES

135.0 lines 2.0 columns wide equals 270.0 equivalent lines at .471
cents per line

\$ 127.06

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
\$ 127.06

TOTAL AMOUNT OF CLAIM

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:

06/18/2012 and 06/18/2012

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.

Kearney Dodson

DATE: 06/18/2012

Title: Clerk

Date of Srvc: 6/18/12 (Date & Descr = 30 Char. Max.)
Other Descr: Public Hearing
Amt 127,06 Fund 62230 Acct 599030 Src. Type 00000
Prog: 27013 Dept: 197049 Edgt. Ref: 2013 PCBU: 00495
Proj Grant: 495409131050000 Activ. ID: 0000900

(G/L Only)

Anlys. Type: --- Prog. Int: CR2 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

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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.

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Indianapolis, IN 46204-2251

Or call (317) 233-1785 (voice) or (317) 232-6565 (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
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INDIANAPOLIS, IN 46206-0145

PUBLISHER'S CLAIM

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Total number of lines in notice

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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
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\$ 15.06

Additional charge for notices containing rule and figure work (50 per cent of above amount)

\$.00

Charges for extra proofs of publication (\$1.00 for each proof in excess of two)

\$ 15.06

TOTAL AMOUNT OF CLAIM

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.

Kerry Dodson

DATE: 06/20/2012

Title: Clerk

JUN 26 '12 PM 3:16

Date of Svc: 6/18/12 (Date & Dscrp = 30 Char. Max.)
Other Dscrp: Public Hearing
Amt. 15.06 Fund 62230 Acct 599030 Gro. Type 000000
Prog. 27013 Dept: 197049 Bdgt. Ref: 2013 PCBU: 00400
Proj Grant 495740913105000 Actv. ID: 0000900
(G/L Only)
Anlys. Type: CP Date: 7/6/12 Acct. Int: _____ Date: _____

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

INDIANAPOLIS STAR AND NEWS, INDIANAPOLIS, IN

CORRECTION

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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 - 5953049)

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
(Governmental Unit)

To: The Star Press

MANAGEMENT County, Indiana

Muncie, IN

CORRECTION Ad for MVEB

PUBLISHER'S CLAIM

Replacement Updates to
Maintenance 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

12-29-12 12:21 PM

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Total number of lines in notice

26

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lines, columns wide equals 26 equivalent

\$ 6.52

lines at 0.2507 per line @ 1 days,

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]

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

time the dates of publication being as follows:

June 20, 2012

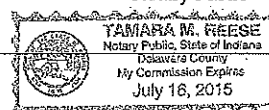
CORRECTION
The Indiana Department of Environmental Management (IDEM) submitted a legal notice that was published in this newspaper on June 18, 2012, containing one incorrect date. The following correction concerns Motor Vehicle Emission Budgets Replacement Update to the Maintenance Areas of Delaware County, Indiana and South Bend-Ekhart, Indiana for the 1997 9-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:"
S5962603

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

Subscribed and sworn to before me this

[Signature]
[Signature]
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

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

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: 495409121050000 Actv ID: 000900

(G/L Only)
Anlys. Type CP Date 2/1/12 Acct Int. _____ Date: _____
I certify that the within claim is true and correct; that the services here-
in itemized and that any change is made, will be ordered by me and will be
necessary to the public business.

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 County, Indiana

Muncie, IN

MVEB Replacement Updates to Maintenance Areas of Delaware County

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

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Total number of lines in notice

12:24:21.62 NDT

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 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.idem.gov>

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 1997 8-hour ozone standard. The original submittals were calculated using the model and are now being replaced with the United States Environmental Protection Agency's (U.S. EPA's) recently adopted Motor Vehicle Emission Budgets (MVEB) mobile model. All interested persons are invited to submit written comments to the maintenance areas of Delaware County, Indiana and South Bend-Elkhart, Indiana.

The purpose of this notice is to solicit public comment on the MVEB replacement updates. The Delaware County, Indiana and South Bend-Elkhart, Indiana areas were designated as nonattainment for standard and subject to the requirements of Section 172AA. One of the compliance requirements mandated by 172AA is the development of a plan demonstrating that ozone continues to meet the 8-hour ozone standard for the nonattainment areas. The MVEB replacement updates to the Delaware County, Indiana and South Bend-Elkhart, Indiana submittals are being submitted to the U.S. EPA for approval. Upon completion, the MVEB replacement updates will be submitted to the U.S. EPA for approval into the appropriate plans.

Copies of the draft documents will be available on or before the date of the public hearing at the following locations:

- Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, 100 North Senate Avenue, 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, Indiana
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The draft documents will also be available on the following website: <http://www.idem.gov/4658.htm>

An electronic version of all MVEB replacement updates will be available at the public hearing, if held, or upon request.

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A public hearing on the MVEB replacement updates to the Delaware County, Indiana and South Bend-Elkhart, Indiana areas is being held on July 18, 2012, at 6:00 p.m. local time 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.idem.gov/calendar.html> or contact Mr. Shawn Seals for more information after July 11, 2012, to see if the hearing is being held.

Individuals requiring reasonable accommodations for participation in the hearing, if held, should contact the IDEM Americans with Disabilities Coordinator at: (317) 233-5967.

Attn: ADA Coordinator
Indiana Department of Environmental Management - Mr. BY. OTH
100 North Senate Avenue
Indianapolis, IN 46204-2251
S OF EAC
N THIS AC

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

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.

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

the dates of publication being as follows:

June 18, 2012

subscribed and sworn to before me this

18 day of June, 2012

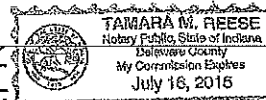
Notary Public

APPROVED

BY: [Signature]

DATE 7-9-12

OFFICE OF AIR QUALITY



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

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20.

Date of Srvc: 6/18/12 (Date & Descr = 30 Char. Max.)
 Other Descr: Legal Aid
 Amt: 67.69 Fund: 62230 Acct: 599030 Grs. Type: 0000
 Prog: 27013 Dept: 27049 Edgt. Flr: 2013 PCBU: 00400
 Proj Grant: 49540912/050000 Actv. ID: 000900
 (G/L Only) _____
 Anlys. Type: _____ Prog. Int: 40 Date: 7/9/12 Acct. Int: _____ Date: _____

LEGAL ADVERTISING
TABLE SHOWING PRICE PER LINE AND PER INSERTION

| Type | No. of Insertions | 6.3 Em Column | | | |
|------|-------------------|---------------|--------|--------|--|
| Size | 1 | 2 | 3 | 4 | |
| 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 | |

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

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 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) 232-6565 (TDD). Please provide a minimum of 72 hours notification.

