**Overview of Non-road Methodology and Supporting Documents in this Appendix**

Annual Emissions and general information:

Emissions from NONROAD mobile sources for 2014 and 2030 were obtained through running the NONROAD portion of the recently released (November 4, 2015), most updated version of the MOVES model, MOVES2014a. With new non-road features and updated allocations superior to any data in our possession, we elected to run the model using national defaults from the model for emissions estimates. The exceptions were the use of 2014 meteorology inputs for both 2014 and 2030 and replacement fuel for 2030 with the removal of Georgia gasoline (now have different blends in 13 and 2 counties areas within 15 county NAA). Output files are included with this submission along with the MOVES runspec files. The NONROAD portion of MOVES2014a produces emissions only down to the 24-hr daytype level (weekday or weekend). We aggregated these emissions to monthly totals first. For each month, the weekday emissions were multiplied by the number of weekdays and weekend emissions by the number of weekends (holidays are included as weekends). In the files “nremisoutputbydaysumtomonth2014.xls” and “nremisoutputbydaysumtomonth2014.xls” this aggregation is executed with the list of months and number of weekdays and weekends in each month in columns L to P of the “DaySummedtoMonthly” worksheet (tab). For instance “20302” for month 1 means year 2030, daytype 2 (weekend, it would be 5 for weekday) for January (month 1). Finally these monthly totals are summed up for an annual total. The same is conducted for each of up to 211 SCCs. So both annual emissions by SCC and overall are included. More detailed modeling information can be found in U.S. EPA’s OTAQ website, specifically the MOVES2014a user’s manual (http://www3.epa.gov/otaq/models/moves/documents/420b15095.pdf).

The supporting documentation includes the input databases (“Inputfiles” folder with 3 databases, one for 2014 (since not variation of fuel among 15 counties), and two for 2030 (one for 13 counties, other for 2 counties)) which was used with each MOVES run to assure local meteorology, fuels were included. A “ScriptsandQueries” folder contains all the scripts used to obtain the numbers used in the narrative of the SIP (see “July weekday” discussion at the end of this document for more details since the results from those queries are specifically what is used in the narrative) as well as the emissions inventory requirements for annual and county by county data down to SCC level. There are also extra scripts describing how data could be grabbed both in Excel and in MySQL files through queries. “MRSFILES” folder contain all the runspecs used (36 total, 12 for 2014, one for each month, and 24 for 2030, two for each month to cover 13 and 2 county fuel areas separately) and the “Outputfiles” folder contains the output databases (one titled “nranydayforsipscc2014\_out2” for 2014 and “nranydayforsipscc15cnty2030\_out”). Note there are extra tables titled “emissions2014” and “emissions2030” within the output database which allow one to easily obtain annual values through the included queries. Want to emphasize that emission totals are grabbed from “emissions2014” and “emissions2030” tables not “movesoutput” as usual because some post processing was needed to make sure one can obtain both daily summer emissions and annual emissions in the same place. The raw outputs in “movesoutput” are at the typical weekday and weekend level so one cannot just sum the data in the “movesoutput” table to obtain weekly or monthly data.

The individual xlsx, .csv, and docx files in this Appendix are grouped as follows:

1. The “atl\_2014\_final\_annual\_sccmaintsip.xlsx”/”atl\_2030\_final\_annual\_sccmaintsip.xlsx” files provide final calculations down to the SCC level used for the emissions inventory. There is an equivalent group of files with “osd” in the title for typical July weekday emissions.
2. The “Maintenance SIP\_ATL\_annual\_summary.xlsx” file provides total annual emissions by county and total 15 county region. There is an equivalent file “ozone summary” for typical July weekday emissions.
3. The “nremisoutputbydaysumtomonth2014.xlsx”/ “nremisoutputbydaysumtomonth2030.xlsx” files show how the daily data was summed to month and then potentially to annual over the whole 15 county region by pollutant
4. “nremissionsbysccforsipmysql2014.csv”/“nremissionsbysccforsipmysql2030.csv” are the excel version of the “emissions2014” and “emissions2030” mysql tables located within the output database. These are uploaded by MySQL script into the output databases so that one could use MySQL to obtain annual and monthly emissions values easily.
5. “nrmeteorology.csv” is the meteorology file uploaded to the input database
6. “ReadMe\_MethodologyNRMAINSIP\_Detailed.docx”: Contains a step by step highly detailed description of how the emissions were obtained for those with a strong, technical background in MOVES who might want to know more details.

July weekday/ozone season extra note:

The summer day emissions from nonroad mobile sources for 2014 and 2030 are calculated using the latest version of MOVES, MOVES2014a (released November 4, 2014), running the NONROAD portion, for a July weekday using the same inputs as described in the section for calculating annual emissions for nonroad mobile sources (national defaults). In this case the values obtained here are July weekday. The data for July weekday was grabbed from the “emissions2014” and “emissions2030” tables in the MOVES output database just like for the annual emissions except using MySQL queries especially for this purpose with “Julyweekday” in their titles. Also, for quick perusal take a look at any files with “osd” and “ozone summary” for summarized emissions totals for July weekday/ozone season.