Appendix A-2:
2007 Emissions Inventory Documentation

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Development of the Point Source Emission Inventory for 2007 in the SESARM Region

(Version 1.10a)

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List of Acronyms and Abbreviations

Acronym	Description
AMEC	AMEC Environment & Infrastructure, Inc.
CAMD	Clean Air Markets Division of EPA
CAP	Criteria Air Pollutant
CEM	Continuous Emission Monitoring System
CE	Control Equipment (NIF table)
CERR	Consolidated Emission Reporting Rule
CO	Carbon Monoxide
EGU	Electric Generating Unit
EM	Emission (NIF table)
EP	Emission Process (NIF table)
EPA	U.S. Environmental Protection Agency
ER	Emission Release (NIF table)
EU	Emission Unit (NIF table)
LATLON	Latitude / Longitude
MANE-VU	Mid-Atlantic/Northeast Visibility Union
MARAMA	Mid-Atlantic Regional Air Management Association
NAAQS	National Ambient Air Quality Standards
NEI	National Emission Inventory
NH_3	Ammonia
NIF3.0	National Emission Inventory Input Format Version 3.0
nonEGU	Non Electric Generating Unit
NO_x	Oxides of Nitrogen
PE	Period (NIF table)
PM	Particulate Matter
PM-CON	Primary PM, Condensable portion only (all < 1 micron)
PM-FIL	Primary PM, Filterable portion only
PM-PRI	Primary PM, includes filterables and condensables PM-PRI= PM-FIL + PM-CON
PM10-FIL	Primary PM10, Filterable portion only
PM10-PRI	Primary PM10, includes filterables and condensables, PM10- PRI = PM0-FIL + PM-CON
PM25-FIL	Primary $PM_{2.5}$, Filterable portion only
PM25-PRI	Primary $PM_{2.5}$, includes filterables and condensables PM25-PRI= PM25-FIL + PM-CON
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
SCC	Source Classification Code
SEMAP	Southeastern Modeling, Analysis, and Planning

Acronym	Description
SESARM	Southeastern State Air Resource Managers, Inc.
SMOKE	Sparse Matrix Operator Kernel Emissions (modeling system)
SI	Site (NIF Table)
SIC	Standard Industrial Classification code
SIP	State Implementation Plan
S/L	State/Local
SO_2	Sulfur Dioxide
TR	Transaction (NIF Table)
TSD	Technical Support Document
UTM	Universal TransMercator
VISTAS	Visibility Improvement State and Tribal Association of the Southeast
VOC	Volatile Organic Compounds

1.0 ANNUAL 2007 INVENTORY FOR POINT SOURCES

1.1 INTRODUCTION

In 2009, the Southeastern State Air Resource Managers, Inc. (SESARM) initiated a new Southeastern Modeling, Analysis, and Planning (SEMAP) project. The SEMAP project addresses the next phase of ozone, fine particle, and regional haze assessment obligations through funding from two grants awarded by the U.S. Environmental Protection Agency (EPA).

This technical support document (TSD) explains the data sources, methods, and results for preparing the 2007 criteria air pollutant (CAP) and ammonia (NH_3) emission inventory for point sources for the Southeastern U.S. The region includes Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. In general, point sources in this inventory are sources classified as major sources under the Title V permitting program and sources required to submit hourly emissions data to EPA under various Clean Air Act programs. Some State and local agencies included smaller sources in the point source inventory. The inventory includes annual emissions for sulfur dioxide (SO_2), oxides of nitrogen (NO_x), volatile organic compounds (VOC), carbon monoxide (CO), ammonia (NH_3), and five components of particulate matter (PM).

The inventory also includes particulate matter (PM) emissions, categorized as filterable, condensable, or total. Filterable emissions are generally considered to be the particles that are trapped by the glass fiber filter in the front half of a Reference Method 5 or Method 17 sampling train. Vapors and particles less than 0.3 microns pass through the filter. Condensable particulate matter is material that is emitted in the vapor state which later condenses to form homogeneous and/or heterogeneous aerosol particles. The PM species in the inventory are categorized as: all filterable and condensable particles with an aerodynamic diameter less than or equal to a nominal 10 and 2.5 micrometers (i.e., PM10-PRI and PM25-PRI); filterable particles with an aerodynamic diameter less than or equal to a nominal 10 and 2.5 micrometers (i.e., PM10-FIL and PM25-FIL); and condensable particles (PM-CON). Note that PM10-PRI equals the sum of PM10-FIL and PM-CON, and PM25-PRI equals the sum of PM25-FIL and PM-CON.

The EPA has provided guidance on developing emission inventories to be used with models and other analyses for demonstrating attainment of air quality goals for ozone, fine particles, and regional haze (EPA 2005, EPA 2007). According to the EPA guidance, there are potentially two different base year emissions inventories. One is the <u>base case</u> inventory which represents the actual emissions for the meteorological period that is being modeled. This inventory is generally used for model performance evaluations. The second potential base year inventory is called the <u>baseline</u> inventory, which is generally used as the basis for projecting emissions to the future. The <u>base case</u> inventory may include day specific information (e.g. hourly continuous emission monitoring data for point sources) that USEPA considers not appropriate for using in future year projections. Therefore, the <u>baseline</u> inventory may need to replace the day specific emissions with average or "typical" emissions (for certain types of sources). However, while a "typical" EGU inventory was prepared and submitted to SEMAP for review and comment, it was never finalized. As a consequence, for the 2007 SEMAP point source inventory, the <u>base case</u> and <u>baseline</u> inventories are one in the same.

As indicated above, a "typical" year inventory for EGU sources was prepared as part of the base year point source development effort. That inventory was provided to the states for review, but AMEC never received any comments back from that review. Thus the "typical" EGU inventory was never finalized or put into NIF format. The inventory contained 3-year average SO_2, NO_x, and heat input for each unit that reports data to CAMD.

The inventory went through several rounds of quality assurance (QA) reviews by State and local (S/L) agencies, as well as a review by stakeholders. Numerous corrections and improvements were made to the inventory. Updated versions of the inventory were released throughout the inventory development process to facilitate S/L agency and stakeholder review. The following summarizes the different versions of the inventory:

- Version 1.1, released April 2010. S/L agency submittals were compiled into this initial version of the inventory, emissions for units reporting to EPA's Clean Air Markets Division (CAMD) were analyzed, and the PM emissions were augmented to provide a complete set of PM species. Sections 1.2, 1.3, and 1.4 of this report describe the work done to prepare Version 1.1.
- Version 1.2, not released. This version was used internally and included updates to stack parameters as described in Section 1.5 of this report.
- Version 1.3, released May 18, 2010. This version contained the updates and corrections to the inventory specified by S/L agencies as described in Section 1.6. This version was released for Stakeholder review.
- Version 1.4, not released. This version was used internally and included updates to classify units into electric generating units (EGUs) and nonEGUs according to the classification scheme discussed in Section 1.7. It also included updates and corrections based upon stakeholder review, as well as additional review by S/L agencies, as described in Section 1.8.
- Version 1.5, released September 2, 2010. This version removed extraneous or incomplete information that was not needed for air quality modeling, such as emissions of hazardous air pollutants and emissions for non-annual averaging times. This version was provided to SEMAP for use in preparing emission density maps and bubble plots that were provided to S/L agencies for final QA of source locations and emission values.
- Version 1.6, released October 20, 2010. This version included updates provided by S/L agencies after their review of the emission density maps and bubble plots.
- Version 1.7, released December 7, 2010. This version included emission updates to two facilities in Kentucky and replaced geographic coordinates with latitude and longitude for all sources (in previous versions, the geographic coordinates were a mixture of latitude/longitude and UTM coordinates, depending on the agency).
- Version 1.8, released January 26, 2001. This version included revisions to the documentation and data files to respond to comments from EPA Region 4 dated November 10, 2011. The main revision to the data files was to delete facilities in North Carolina that had permanently shutdown prior to 2007 but were inadvertently included in the 2007 inventory with non-zero emissions.

State-level emission summaries of the 2007 point source inventory, referred to as Version 1.10a are provided in Section 1.10. Final deliverables are described in Section 1.11.

1.2 INITIAL DATA SOURCES AND QA REVIEW

Version 1.1 of the 2007 point source inventory was developed using data submitted by State and local agencies in the region, as well as data from the CAMD hourly emission monitoring database.

1.2.1 State Submittals and Conversion into a NIF Database

Each S/L agency collects point source data according to EPA approved procedures that are included in each State's point source emission inventory quality assurance project plan with accompanying

standard operating procedures. These plans and procedures are updated on a continuing basis and are available upon request.

States were requested to submit 2007 data for those major sources that they would normally submit to EPA during the 3-year requirements of the Consolidated Emission Reporting Rule (CERR). Some S/L agencies were able to submit a complete set of data representing 2007. Other S/L agencies were only able to submit 2007 data for very large sources. In this case, inventories for other years were used to create a complete 2007 point source inventory. In a few other cases, the S/L agency submittal was supplemented with data from EPA's 2005-based modeling platform (EPA 2009c). S/L agencies prepare point source emission inventory files in a variety of formats – some use the NEI Input Format (NIF) while others used different formats. Exhibit 1 summarizes the data sources and formats for the S/L agency point source submittals with additional explanatory notes provided in the following sections.

As noted in Exhibit 1, a few S/L agencies provided emissions data for a year other than 2007. Georgia was the only State that requested that a linear projection from 2005/2008 to 2007 be made when both 2005 and 2008 were available. There result of this interpolation for Georgia showed that for sources where 2007 were not available, the emissions changed very little between 2005 and 2007. Other S/L agencies indicated that 2005, 2006, or 2008 emissions data should be considered representative of 2007 for modeling purposes. This recommendation appears to be reasonable, given the small amount of emissions associated with the facilities where 2007 were not available (i.e., 97 percent of the point source NO_x emissions and 99 percent of the SO_2 emissions are 2007 data). It was decided that spending limited resources to obtain and apply appropriate growth factors to project these emissions from 2005/2006/2008 to 2007 would provide an almost unnoticeable improvement to the SEMAP 2007 inventory.

Also note that some S/L agencies submitted many more facilities than were included in the 2002 VISTAS inventory, while others submitted fewer facilities. An explanation of the reason why the number of facilities differs between 2002 and 2007 is provided for each S/L agency in the following sub-sections. SESARM's area source contractor has developed procedures to reconcile the point and area source inventories to both (1) ensure that emissions minor point sources that are included the point source inventory are not double counted in the area source inventory and (2) that emissions from minor point source sources that are not in the point source inventory are included in the area source inventory.

After the each S/L submittal was formatted into a standard NIF database, AMEC Environment & Infrastructure, Inc. (AMEC) performed an initial review of the S/L inventories using EPA's Basic Format and Content Checker tool (EPA 2004). The tool was used to verify the data was in the correct format, to check for referential integrity and duplicate record issues, and to check certain fields for proper valid codes and ranges. Only minor issues were identified and were resolved by AMEC without the need for assistance from the S/L agencies. Following this initial QA review, these individual inventory files were consolidated into a single data set. Additional QA activities identified in the Quality Assurance Project Plan (SESARM 2009) were carried out and documented in the remainder of this document.

Exhibit 1 – Summary of Point Source Data Sources

Agency	# of Facilities in VISTAS 2002 Inventory	# of Facilities in SEMAP 2007 V_1.10a Inventory	Submittal Format	Data Used for 2007 Inventory
AL	319	909	NIF ACCESS	2007 data for 328 major facilities; 2007 data for 613 minor facilities; 32 facilities had only HAP emissions and were removed from the 2007 CAP inventory
AL Jefferson	243	237	NIF ACCESS	2007 data for 37 very large facilities; 2005 S/L data for 237 facilities, which also included the 37 very large facilities
FL	1,050	1,136	NIF Text	2007 data for 1,136 facilities
GA	234	268	NIF ACCESS	2007 S/L data for 74 facilities 2007 CAMD data for 19 facilities not in S/L submittal 2008 S/L data for 109 additional facilities 2005 S/L data for 66 additional facilities
KY	1,581	2,306	NIF xml	2007 data for 2,780 facilities 474 facilities had only HAP emissions and were removed from the 2007 CAP inventory 781 facilities were included in the 2007 SEMAP inventory but were not included in the 2002 VISTAS inventory
KY Jefferson	76	155	NIF ACCESS	2007 data for 155 facilities
MS	640	282	NIF Text	2007 data for 46 facilities 2005 NEI data for 236 facilities
NC	994	1,908	ORL xls	2007 data for 2,145 facilities See Section 1.1.1.8 for more information regarding the increase in the number of facilities
NC Buncombe	6	64	NIF ACCESS	2007 data for 9 Title V facilities 2006 S/L data 64 facilities, which also included the 9 Title V facilities
NC Forsyth	30	82	EIS ACCESS	2007/08 data for 82 facilities See Section 1.9.3 for discussion
NC Mecklenburg	242	221	Quasi-ORL xls	2007 data for 221 facilities
SC	802	291	NIF xml	2007 data for 291 facilities

Agency	# of Facilities in VISTAS 2002 Inventory	# of Facilities in SEMAP 2007 V_1.10a Inventory	Submittal Format	Data Used for 2007 Inventory
TN	373	232	NIF xls	2007 data for 166 Type A and other facilities 2005 NEI data for 66 facilities
TN Davidson	201	205	NIF Text	2007 data for 205 facilities
TN Hamilton	220	177	Quasi-ORL xls	2007 data for 177 facilities
TN Knox	11	8	NIF ACCESS	2007 data for 8 facilities
TN Shelby	35	29	NIF xls	2008 S/L data for 29 facilities
VA	762	801	NIF ACCESS	2007 data for 801 facilities
WV	192	177	NIF ACCESS	2007 data for 177 facilities

1.2.1.1 Alabama

Alabama's initial submittal contained two National Emission Inventory (NEI) Input Format (NIF) ACCESS database files. The first contained 2007 emissions data for 328 major sources, while the second contained 2007 emission data for 613 minor sources. AMEC merged the major source file with the minor source found and identified 10 facilities that were in both files. We used the data from the 2007 major source file and deleted the data from the minor source file to ensure that there was no double counting of emissions for these 10 facilities. Alabama ensured that the minor source emissions that were included in the point source file were not double counted in the area source file. Another contractor reconciled the point and area source inventories and Alabama reviewed the results on a per category basis to ensure that double counting did not occur.

There were numerous records flagged for out-of-range values for stack parameters or location coordinates, or inconsistencies between the flow rate and velocity. These cases are discussed later in this document. A large increase in VOC and PM emissions from 2002 to 2007 was identified. Alabama investigated this problem and identified a serious problem in their data conversion process. New Emission (EM) and Control Equipment (CE) tables were provided in May 2010 to correct this problem.

1.2.1.2 Alabama – Jefferson County

Jefferson County submitted two NIF ACCESS database files. The first contained 2007 emissions data for 37 very large sources, while the second contained 2005 emission data for 237 sources. AMEC merged the 2007 very large source file with the 2005 file and identified that the 37 very large facilities were in both files. We used the data from the 2007 file and deleted the corresponding facilities from the 2005 file to ensure no double counting of emissions. AMEC did not project 2005 emission data to 2007, as the 2005 data was considered to be representative of 2007.

Jefferson County submitted emissions data for a large number of hazardous air pollutants. Since these pollutants are not needed for regional ozone and fine particle modeling, they were stripped from the EM and CE tables.

The EPA's Basic Format and Content Checker identified several relational widow/orphan issues. These were caused by the Emission Unit ID and Emission Release Point ID being reversed in the EP table for some records. AMEC made the necessary corrections to the NIF EP table to ensure that all NIF EM records had a match in the NIF Emission Unit (EU), Emission Process (EP), and EM tables.

The flow rates provided in the NIF Emission Release (ER) table were reported in cubic feet per minute. The NIF specifications require that this field be reported in cubic feet per second. AMEC recalculated the flow rate by dividing the flow rate provided by Jefferson County by 60.

1.2.1.3 Florida

Florida submitted NIF tables in ASCII text format with 2007 emissions data for 1,139 facilities. There were numerous records flagged for out-of-range values for stack parameters or location coordinates, or inconsistencies between the flow rate and velocity by the EPA's Basic Format and Content Checker. These cases are discussed later in Section 1.5 of this document. Otherwise the data passed all of the QA checks.

1.2.1.4 Georgia

Georgia submitted three NIF ACCESS database files. The first contained 2007 emissions data for 74 very large sources. The second file contained 2008 emission data for 109 additional facilities. And the third file contained 2005 data for 69 additional facilities. AMEC merged the three files using the 2007 data when available, the 2008 data where 2007 data were not available, and 2005 data as a last resort. We used the data from the 2007 file and deleted the corresponding facilities from the 2008/2005 files to ensure no double counting of emissions. No significant issues were identified by EPA's Basic Format and Content Checker. No projecting of 2005 emissions to 2007 or back casting of 2008 emissions to 2007 was done during the initial processing of the submittals. See Section 1.6.4 for a discussion of how 2007 emissions were subsequently estimated for the final SEMAP inventory when only 2005 or 2008 data were available.

1.2.1.5 Kentucky

Kentucky submitted an xml file that was loaded into an ACCESS database with NIF tables with 2007 emissions data for 2,780 facilities. There were approximately 474 facilities in Kentucky's submittal that had only HAP emissions (i.e., emissions were zero for all criteria air pollutants at the facility) and were removed from the 2007 inventory. An additional 781 facilities were included in the 2007 SEMAP inventory but were not included in the 2002 VISTAS inventory. These additional facilities in the 2007 SEMAP inventory were generally very small sources, and the aggregate NO_x emissions from these 781 small facilities totaled only 805 tons per year.

The EPA's Basic Format and Content Checker identified several relational widow issues, that is, there were SI, ER, EU, EP, PE and CE records with no corresponding emissions data in the EM file. These widow records were removed from the SI, ER, EU, EP, PE, and CE tables.

The flow rates provided in the ER table were reported in cubic feet per minute. The NIF specifications require that this field be reported in cubic feet per second. AMEC recalculated the flow rate by dividing the flow rate provided by Kentucky by 60.

There were numerous records flagged for out-of-range values for stack parameters or location coordinates, or inconsistencies between the flow rate and velocity by the EPA's Basic Format and Content Checker. These cases are discussed later in Section 1.5 of this document.

1.2.1.6 Kentucky – Jefferson County

Jefferson County submitted two NIF ACCESS databases containing 2007 emissions data – one file contained criteria air pollutants and the other file contained hazardous air pollutants. Only the

criteria air pollutant file was processed. Jefferson County's submittal passed all of checks made by the EPA's Basic Format and Content Checker.

1.2.1.7 Mississippi

Mississippi submitted NIF tables in ASCII text format with 2007 emissions data for 45 facilities. Mississippi's submittal passed all of checks made by the EPA's Basic Format and Content Checker.

Mississippi's 2007 submittal was supplemented with data from EPA's 2005-based modeling platform (EPA 2009c). The data were provided in SMOKE ORL format, converted into a NIF database, and merged with Mississippi's submittal. We used the data from Mississippi's 2007 file and deleted the corresponding facilities from the 2005 EPA file to ensure no double counting of emissions. Mississippi decided to include 236 facilities from the 2005 NEI from the 2007 SEMAP inventory. At this time, AMEC did not perform any projecting of 2005 data to 2007. No significant issues were identified by EPA's Basic Format and Content Checker.

1.2.1.8 North Carolina

North Carolina submitted a SMOKE one-record-per-line (ORL) file with 2007 data for 2,145 facilities. AMEC converted the ORL file to a NIF database. There was no control information in the ORL file, so we were not able to create a NIF CE table.

There were numerous records flagged for out-of-range values for stack parameters or location coordinates, or inconsistencies between the flow rate and velocity by the EPA's Basic Format and Content Checker. These cases are discussed later in Section 1.5 of this document. Otherwise the data passed all of the QA checks.

A large increase in VOC emissions from 2002 to 2007 was identified. North Carolina investigated this problem and identified a serious problem in their data conversion process. New EM and CE tables were provided in May 2010 to correct this problem.

The 2007 SEMAP inventory contains many more sources than were included in the 2002 VISTAS inventory. There are three reasons to explain the large increase in the number of facilities in the 2007 inventory versus the 2002 inventory:

- There are some new permit sources added since 2002;
- There were about 163 facilities in NC's initial submittal that were permanently closed between 2002 and 2006 that were inadvertently left in the 2007 inventory with non-zero emissions. These facilities were removed from the 2007 SEMAP inventory; and
- Most the new facilities in 2007 are due to the following reason: 2002 was the year NC changed the emission reporting system. From 1993 to 2002, all non-title V sources reported their emission once every three years (1993, 1996, 1999, and 2002). Since 2002, NC changed the emission reporting system from once every three years to once every five year and each facility reports their emission the year their permit expired. So the 2007 point source emission inventory is much more inclusive compared to 2002 emission inventory, which only included the facilities reported during the year of 2002, not all facilities that operated in 2002.

1.2.1.9 North Carolina – Buncombe County

Buncombe County submitted two NIF ACCESS database files. The first contained 2007 emissions data for 9 Title V facilities, while the second contained 2006 emission data for 65 facilities. AMEC merged the 2007 Title V source file with the 2006 file and verified that the 9 Title V facilities were in both files. We used the data from the 2007 file for the Title V facilities and deleted the corresponding facilities from the 2006 file to ensure no double counting of emissions. We also deleted all records

for Snider Tire (Facility ID 0861) which ceased operation in 2006 and did not operate in 2007. AMEC did not project the 2006 emissions to 2007, as the 2006 emissions are considered to be representative of 2007.

There were several records flagged for out-of-range values for stack parameters or location coordinates, or inconsistencies between the flow rate and velocity by the EPA's Basic Format and Content Checker. These cases are discussed later in Section 1.5 of this document. Otherwise the data passed all of the QA checks.

1.2.1.10 North Carolina – Forsyth County

Forsyth County provided 2008 data for 84 facilities in an EIS-formatted ACCESS database. The data is actually a mix of 2008, 2007 and previous year data, but Forsyth County indicated that the submittal is representative of calendar year 2007. AMEC performed data reformatting a number of data augmentation steps to create reasonably complete NIF tables, as follows:

- SI Table – relevant fields from the "FacilitySite" ACCESS table were mapped to NIF SI table fields.
- ER Table – relevant fields from the "ReleasePoint" ACCESS table were mapped to NIF ER table fields. The flow rate in the "Release Point" table was in cubic feet per minute. The NIF specifications require that this field be reported in cubic feet per second. AMEC recalculated the flow rate by dividing the flow rate provided by 60. There were no stack-level geographic coordinates in the "ReleasePoint GeographicCoordinates" ACCESS table. However, there were facility-level coordinates for some facilities in the "FacilitySiteGeographicCoordinates" ACCESS table, and these were used for all emission release points associated with the facility. Where a facility match could not be made, we substituted the county centroid for the geographic coordinates (longitude -80.24, latitude 36.114).
- EU Table – relevant fields from the "EmissionUnit" ACCESS table were mapped to NIF EU table fields.
- EP Table – relevant fields from the "EmissionProcess" ACCESS table were mapped to NIF EP table fields. The emission release point identifier was obtained from the "ReleasePointApportionment" ACCESS table.
- PE Table – relevant fields from the "EmissionProcess" ACCESS table were mapped to NIF PE table fields.
- CE Table – no information on control equipment was provided.
- EM Table – relevant fields from the "Emissions" ACCESS table were mapped to NIF ER table fields. The emission release point identifier was obtained from the "ReleasePointApportionment" ACCESS table.

There were several records flagged for out-of-range values for stack parameters or location coordinates, or inconsistencies between the flow rate and velocity by the EPA's Basic Format and Content Checker. These cases are discussed later in Section 1.5 of this document. Otherwise the data passed all of the QA checks.

1.2.1.11 North Carolina – Mecklenburg County

Mecklenburg County provided 2007 emissions data for 539 facilities in a spreadsheet that contained a limited number of NIF fields. AMEC performed data reformatting and a number of data augmentation steps to create reasonably complete NIF tables, as follows:

- SI Table – only the facility id# and facility name were provided; we obtained the SIC code from the VISTAS 2002 B&F inventory where we were able to match facilities.
- ER Table – the submittal did not contain any stack parameters and the geographic coordinates were in NC State Planar coordinates, not UTM coordinates or latitude/longitude as required by the NIF specification. To fill in the geographic coordinates, we obtained the latitude and longitude from the VISTAS 2002 B&F inventory where we were able to match facilities. Where a facility match could not be made, we substituted the county centroid for the geographic coordinates (longitude -80.789, latitude 35.252). Stack parameters for the Stage I gasoline distribution facilities were assigned a fugitive release height of 10 feet. Stack parameters for all other sources will be filled in according to the gap-filling procedures discussed later in Section 1.5 of this document.
- EU Table – the submittal only contained the unit description, all other EU non-key data elements were left blank.
- EP Table – the submittal only contained SCC and the process description, all other EP non-key data elements were left blank.
- PE Table – we filled in the PE table with the PE key identifiers, and added the startdate of 20070101 and end date of 20071231. All other PE non-key data elements were left blank.
- CE Table – no control information was provided, so the CE table is blank.
- EM Table – the submittal contained annual emissions for all criteria air pollutants and ammonia.

After reformatting the spreadsheet into NIF tables, we ran the EPA's Basic Format and Content Checker and did not detect any QA issues other than the missing stack parameters.

Mecklenburg County initially included 319 Stage I gasoline stations in the point source inventory. For consistency with other counties in North Carolina (where Stage I emissions are included in the area source inventory) and to avoid double counting, these gasoline stations were removed from the point source inventory.

1.2.1.12 South Carolina

South Carolina submitted an xml file that was loaded into an ACCESS database with NIF tables with 2007 emissions data for 293 facilities.

The EPA's Basic Format and Content Checker identified that certain EM records associated with facility ID 2320-0034 (NAN YA Plastics) were assigned to FIPS 45041 (Florence County) while other NIF records associated with this plant were associated with FIPS 45089 (Williamsburg County). AMEC changed the FIPS to 45089 for the records in the EM table to resolve this orphan issue. Geographic coordinates in the ER table were not changed.

The flow rates provided in the ER table were reported in cubic feet per minute. The NIF specifications require that this field be reported in cubic feet per second. AMEC recalculated the flow rate by dividing the flow rate provided by South Carolina by 60.

South Carolina's 2007 submittal included many fewer facilities than were in the VISTAS 2002 inventory. South Carolina reviewed data from EPA's 2005-based modeling platform. South Carolina decided that the sources that were included in the 2002 but not in the 2007 inventory were predominantly minor sources, and that the use of EPA's 2005 NEI data was not appropriate for use in the 2007 SEMAP inventory.

1.2.1.13 Tennessee

Tennessee submitted two spreadsheets with NIF tables for all counties except the four local program counties. The first file contained 2007 emissions data for 45 very large sources (i.e., Type A sources), while the second contained 2007 emission data for additional smaller facilities. AMEC merged the two files and checked for duplicate facilities. One facility – JW Aluminum (Facility ID 47113-0010) – was found in both submittals. Only the Type A submittal for this facility was used to avoid double counting of emissions.

Tennessee submitted emissions data for a large number of hazardous air pollutants. Since these pollutants are not needed for regional ozone and fine particle modeling, they were stripped from the EM and CE tables.
The EPA's Basic Format and Content Checker identified several relational widow/orphan issues. AMEC made the necessary corrections to the NIF tables to ensure that all EM records had a match in the EU, EP, PE and EM tables.

Tennessee's 2007 submittals were supplemented with data from EPA's 2005-based modeling platform. These data were downloaded from EPA's ftp site (file name: 2005v4CAPHAP_orl_point.zip). The data were provided in SMOKE ORL format, converted into a NIF database, and merged with Tennessee's submittal. We used the data from Tennessee's 2007 files and deleted the corresponding facilities from the 2005 EPA file to ensure no double counting of emissions. At this time, AMEC did not perform any projecting of 2005 data to 2007. No significant issues were identified by EPA's Basic Format and Content Checker. An additional 280 facilities were added during this augmentation process.

1.2.1.14 Tennessee – Davidson County

Davidson County submitted NIF tables in ASCII text format with 2007 emissions data for 205 facilities. There were numerous records flagged for out-of-range values for stack parameters or location coordinates, or inconsistencies between the flow rate and velocity by the EPA's Basic Format and Content Checker. These cases are discussed later in Section 1.5 of this document. Otherwise the data passed all of the QA checks.

1.2.1.15 Tennessee – Hamilton County

Hamilton County provided data representative of 2007 for 177 facilities in a spreadsheet that contained the NIF fields needed for regional air quality modeling. AMEC performed data reformatting to create reasonably complete NIF tables. The data passed all of the QA checks.

1.2.1.16 Tennessee – Knox County

Knox County submitted a NIF ACCESS database containing 2007 emissions data for 9 facilities. There were a few records flagged for out-of-range values for stack parameters or location coordinates, or inconsistencies between the flow rate and velocity by the EPA's Basic Format and Content Checker. These cases are discussed later in Section 1.5 of this document. Otherwise the data passed all of the QA checks.

1.2.1.17 Tennessee – Shelby County

Shelby County submitted a spreadsheet with NIF tables for 29 facilities with 2008 emissions data. The 2008 was considered representative of 2007 for all sources except the TVA Allen Plant (Facility ID 47157-00528), for which we used the 2007 annual SO_2 and NO_x emissions as reported in EPA's CAMD database.

Shelby County submitted emissions data for a large number of hazardous air pollutants. Since these pollutants are not needed for regional ozone and fine particle modeling, they were stripped from the EM and CE tables.

The EPA's Basic Format and Content Checker identified several relational widow/orphan issues. AMEC made the necessary corrections to the NIF tables to ensure that all EM records had a match in the EU, EP, PE and EM tables.

1.2.1.18 Virginia

Virginia submitted a NIF ACCESS database containing 2007 emissions data for 801 facilities. Since Virginia is participating with MARAMA in developing a regional modeling inventory for the northeastern States, Virginia's data has already undergone considerable QA review and updating. As part of the MARAMA inventory development process, Virginia provided emissions data for a number of additional distributed generation units. Virginia's submittal to MARAMA was subjected to the QA and PM augmentation procedures described in this report. Virginia has accepted the MARAMA 2007 point source inventory for use in the SEMAP 2007 point source modeling inventory.

1.2.1.19 West Virginia

West Virginia submitted a NIF ACCESS database containing 2007 emissions data for 177 facilities. West Virginia's submittal passed all of checks made by the EPA's Basic Format and Content Checker with the exception of some of the stack parameter values. There were numerous records flagged for out-of-range values for stack parameters or location coordinates, or inconsistencies between the flow rate and velocity by the EPA's Basic Format and Content Checker. These cases are discussed later in Section 1.5 of this document.

1.3 EPA CAMD HOURLY EMISSION DATA

The second source of data was the hourly emission data reported to EPA by facilities to comply with various provisions of the Clean Air Act. AMEC downloaded the 2007 CAMD annual inventory containing NO_x and SO_2 emissions, heat input data and other information from the CAMD web site (EPA 2009a).

AMEC prepared an initial crosswalk file to match facilities and units in the CAMD inventory to facilities and units in the 2007 SEMAP inventory. In the CAMD inventory, the Office of Regulatory Information Systems (ORIS) identification (ID) code identifies unique facilities and the unit ID identifies unique boilers and internal combustion engines (i.e., turbines and reciprocating engines).

AMEC also downloaded the 2007 CAMD hourly inventory containing hourly NO_x and SO_2 emissions and heat input data from the CAMD website (EPA 2009b). AMEC summed the hourly emissions to the annual level (or 6-month level for 6-month reporting units) by emission unit. The summed hourly data was compared to the annual summary data, which matched in virtually all case. This check was made because SEMAP is considering using the actual 2007 hourly data rather than average temporal profiles in the next round of regional air quality modeling.

As a starting point for developing the CAMD-to-NIF crosswalk, AMEC obtained and used the CAMD-to-NIF crosswalk that was developed for the VISTAS Best & Final inventory (VISTAS, 2007). This file was useful for matching many facilities and units. However, in many other cases either the CAMD unit identifier changed or the facility and unit identifiers in the S/L database changed. For example, the facility IDs in West Virginia's 2002 VISTAS database were a 4-digit field, while the facility IDs in the 2007 SEMAP inventory are a 5-digit field. In Kentucky, the facility IDs in the 2002 VISTAS database consisted of the five-digit FIPS code followed by a 5-digit facility ID, while the facility IDs in the 2007 SEMAP inventory consisted of only the 5-digit facility ID. In North Carolina, nearly all unit IDs changed between 2002 and 2007.

AMEC prepared an Excel Workbook file for each S/L agency with linkages between the CAMD identifiers and the S/L agency identifiers and a comparison between the CAMD annual summary

emissions, the annual emissions summed from the hourly CAMD database, and annual emissions reported in the S/L inventory. This spreadsheet matched the CAMD unit-level IDs (ORISID and UNITID) with corresponding NIF table IDs (FIPS, SITE ID, EU ID, EP ID, ER ID). Emissions were shown as obtained from (1) the CAMD unit level file, (2) the sum of the CAMD hourly emission file, and (3) the State submitted NIF tables. Note that the CAMD Emissions are reported at the unit level while the NIF emissions are reported at the Unit/Process/Stack level.

AMEC added three fields to the NIF EP table to facilitate the linkage to the CAMD database. We added fields to store the CAMD ORISID, CAMD Unit ID, and CAMD number of reporting months.

AMEC prepared a CAMD-to-NIF crosswalk spreadsheet for each State. S/L agencies were asked to review this list and verify that (1) the linkages are correct, (2) there are no large sources missing from the CAMD-to-NIF crosswalk, and (3) there are not any large discrepancies between the emissions reported to CAMD and the emissions reported in the SEMAP database.

There are three types of possible linkages:

- CAMD facility has no match in NIF SI facility table. The emissions from these facilities reported to CAMD are small, and initially accounted for about 0.5% of the NO_x and 0.07% of the SO_2 emissions in the CAMD database.
- CAMD unit could not be matched in NIF. The emissions from these facilities reported to CAMD were small, accounting for about 0.9% of the NO_x and 0.007% of the SO_2 emissions in the CAMD database. Most of the units that could not be matched at the unit level are either peaking units or industrial sources such as paper mills or chemical plants. In addition, there were several instances where multiple CAMD units match to a single NIF record (i.e., units are grouped in the NIF tables but reported individually in the CAMD database).
- CAMD unit matches with a single NIF record or CAMD unit matches with multiple NIF records (in many cases, the NIF tables include multiple records for different fuel types). The emissions from these units reported to CAMD account for about 98.6% of the NO_x and 99.9% of the SO_2 emissions in the CAMD database. In most cases the sum of the emissions from the matching NIF records are generally very close to the CAMD unit level emissions; and S/L agencies verified that linkages were correct.

As another QA check, AMEC compiled a list of sources with EGU SCCs of 1-01-xxx-xx and 2-01-xxx-xx in the S/L agency NIF tables that could not be linked to the CAMD CEM table to help resolve some of the linkage issues noted above. S/L agencies made significant efforts to improve the crosswalk between the CAMD identifiers and the S/L agency identifiers.

1.4 PM AUGMENTATION

PM compounds may be reported in several forms, as identified in Exhibit 2. Exhibit 3 provides a count of the number of annual NIF EM table records in each agency's NIF Submittal by type of PM compound. The PM augmentations process gap-fills missing PM pollutant complements. We generated emission estimates for filterable and primary $PM_{-2.5}$, filterable and primary PM-10 and condensable PM if emission estimates for those species were missing from the S/L agency submittal .For example, if a S/L agency provided only PM10-PRI emissions, the PM augmentation process filled in estimates for PM-CON, PM10-FIL, PM25-PRI, and PM25-FIL.

The PM augmentation process is essentially the same process used in developing the 2002 VISTAS Best and Final inventory and is virtually identical to the EPA methodology used for the 2002 NEI (EPA 2006a). The steps in the PM augmentation process were as follows:

- Step 1: Initial QA and remediation of S/L provided PM pollutants;
- Step 2: Updating of PM factor ratios previously developed for MARAMA based on factors from the Factor Information and Retrieval Data System and the EPA PM Calculator;
- Step 3: Implementation of the ratios developed in step 2;
- Step 4: Presentation of PM augmentation results to S/L agencies for review and comment; and
- Step 5: Updates to augmented values in cases where the S/L agency was able to obtain source-specific data.

Exhibit 2 – PM Compound Descriptions

Pollutant Code	Pollutant	Pollutant Description
PM-CON	Primary PM Condensable portion only (all < 1 micron)	Material that is vapor phase at stack conditions, but which condenses and/or reacts upon cooling and dilution in the ambient air to form solid or liquid PM immediately after discharge from the stack.
PM-FIL	Primary PM, Filterable portion only	Particles that are directly emitted by a source as a solid or liquid at stack or release conditions and captured on the filter of a stack test train.
PM-PRI	Primary PM, includes filterables and condensables PM-PRI= PM-FIL + PM-CON	Particles that enter the atmosphere as a direct emission from a stack or an open source. It is comprised of two components: Filterable PM and Condensable PM.
PM10-FIL	Primary PM10, Filterable portion only	Particles with an aerodynamic diameter equal to or less than 10 micrometers that are directly emitted by a source as a solid or liquid at stack or release conditions and captured on the filter of a stack test train.
PM10-PRI	Primary PM10, includes filterables and condensables, PM10- PRI = PM0-FIL + PM-CON	Particles with an aerodynamic diameter equal to or less than 10 micrometers that enter the atmosphere as a direct emission from a stack or an open source. It is comprised of two components: Filterable PM and Condensable PM. (As specified in § 51.15 (a)(2), These two PM components are the components measured by a stack sampling train such as EPA Method 5.)
PM25-FIL	Primary $PM_{2.5}$, Filterable portion only	Particles with an aerodynamic diameter equal to or less than 2.5 micrometers that are directly emitted by a source as a solid or liquid at stack or release conditions and captured on the filter of a stack test train.
PM25-PRI	Primary $PM_{2.5}$, includes filterables and condensables PM25-PRI= PM25-FIL + PM-CON	Particles with an aerodynamic diameter equal to or less than 2.5 micrometers that enter the atmosphere as a direct emission from a stack or an open source. It is comprised of two components: Filterable PM and Condensable PM. (As specified in § 51.15 (a)(2), These two PM components are the components measured by a stack sampling train such as EPA Method 5.)

Exhibit 3 – PM Compounds Reported in Initial State Submittals

	Number of Annual EM Records in S/L Agency's Initial NIF Submittal						
Agency	**PM-CON**	**PM-FIL**	**PM-PRI**	**PM10-FIL**	**PM10-PRI**	**PM25-FIL**	**PM25-PRI**
AL	0	4,748	0	2,918	0	2,035	0
AL Jefferson	0	318	0	631	0	626	0
FL	0	3,576	0	3,672	0	0	0
GA	0	137	2,912	0	1,869	0	1,285
KY	0	0	29,856	0	29,859	0	99
KY Jefferson	20	0	222	20	222	20	214
MS[1]	413	56	3,073	429	3,251	429	3,251
NC	0	0	0	0	9,120	0	5,800
NC Buncombe	26	40	63	40	63	40	58
NC Forsyth	12	4	408	23	381	5	210
NC Mecklenburg	0	0	0	0	613	0	309
SC[1]	1,241	409	6,645	1,439	5,992	1,422	4,224
TN[1]	2,274	3,175	1,258	2,811	2,560	2,641	2,441
TN Davidson	0	0	0	0	775	0	649
TN Hamilton	0	0	394	0	279	0	332
TN Knox	0	0	0	0	15	0	1
TN Shelby	57	189	79	70	279	63	99
VA[2]	5,238	0	0	5,238	5,241	5,238	5,241
WV	167	2,138	802	1,814	737	1,586	691

1) Includes PM records from EPA's 2005-based modeling inventory, which have already been augmented by EPA
2) Virginia's PM augmentation was previously performed using an identical augmentation process during the development of the 2007 regional emission inventory for the Northeast/Mid-Atlantic States

1.4.1 Initial QA and Remediation of PM Pollutants

Prior to executing the PM augmentation process, we first reviewed the data for inconsistencies. If values are found to be inconsistent, they were replaced. The consistency checks and replacement actions are as follows:

1. If PM10-PRI >0 and PM25-PRI > PM10-PRI (and PM10-FIL, PM25-FIL and PM-CON are null or 0), then set PM25-PRI = PM10-PRI.
2. If PM10-FIL > 0 and PM25-FIL > PM10-FIL (and PM10-PRI, PM25-PRI and PM-CON are null or 0), then set PM25-FIL = PM10-FIL.
3. If PM10-PRI >0 and PM10-FIL > PM10-PRI (and PM25-PRI, PM25-FIL and PM-CON are null or 0), then set PM10-FIL = PM10-PRI.

4. If PM25-PRI > 0 and PM25-FIL > PM25-PRI (and PM10-PRI, PM10-FIL and PM-CON are null or 0), then set PM25-FIL = PM25-PRI.

The consistency checks revealed very few occurrences of inconsistencies, and when inconsistencies did occur, the emission values were very small. As a result, S/L agencies were not asked to review this information and provide corrections because the inconsistencies did not involve significant emission sources. The replacement actions above were appropriate for an inventory used for regional air quality modeling.

1.4.2 Updating of PM Factor Ratios

The augmentation steps require the use of ratios developed from available emissions and particle size distribution data. These ratios are needed when only one PM term is available, and two or more terms need to be augmented. Examples of how we used the PM ratios are shown below:

PM-FIL × RatioCON/FIL = PM-CON

PM-PRI × RatioCON/PRI = PM-CON

PM-CON × RatioFIL/CON = PM-FIL

PM-CON × RatioPRI/CON = PM-PRI

A table of PM compound ratios was developed utilizing the table developed for the MANE-VU 2002 inventory (MARAMA, 2006). This table is keyed by SCC, primary control device, and secondary control device and provides the ratios listed in the above equations. We updated this table to include SCC, primary control device, and secondary control device codes found in the 2007 SEMAP inventory that were not contained in the 2002 MANE-VU inventory.

1.4.3 PM Emission Calculations

The gap-filling requires that the data be analyzed and separated into cases. The cases determine which math steps and ratios of PM terms will be applied. Exhibit 4 shows the various cases and the augmentation method that was applied.

Exhibit 4 – PM Cases and Required Steps to Augment PM Emissions

Case	PM Reported	Augmentation Methodology
1	PM25-PRI	PM-CON = PM25-PRI * CON_P25 ratio PM25-FIL = PM25-PRI - PM-CON PM10-FIL = PM25-FIL * F10_F25 ratio PM10-PRI = PM-CON + PM10-FIL
2	PM10-PRI	PM-CON = PM10-PRI * CON_P10 ratio PM10-FIL = PM10-PRI - PM-CON PM25-FIL = PM10-FIL / F10_F25 ratio PM25-PRI = PM-CON + PM25-FIL
3	PM25-PRI PM10-PRI	PM-CON = PM10-PRI * CON_P10 ratio PM10-FIL = PM10-PRI - PM-CON PM25-FIL = PM25-PRI - PM-CON
4	PM10-FIL	PM-CON = PM-CON * CON_F10 ratio PM10-PRI = PM-CON + PM10-FIL PM25-FIL = PM10-FIL / F10_F25 ratio PM25-PRI = PM-CON + PM25-FIL
5	PM10-FIL PM25-FIL	PM-CON = PM10-FIL * CON_F10 ratio PM10-PRI = PM-CON + PM10-FIL PM25-PRI = PM-CON + PM25-FIL

Case	PM Reported	Augmentation Methodology
6	PM10-FIL PM10-PRI	PM-CON = PM10-PRI - PM10-FIL PM25-FIL = PM10-FIL * F25_F10 ratio PM25-PRI = PM-CON + PM25-FIL
7	PM25-FIL	PM-CON = PM25-FIL * CON_F25 ratio PM10-FIL = PM25-FIL * F10-F25 ratio PM10-PRI = PM-CON + PM10-FIL PM25-PRI = PM-CON + PM25-FIL
8	PM10-FIL PM10-PRI PM25-FIL PM25-PRI	PM-CON = PM25-PRI - PM25-FIL
9	PM-PRI	PM-CON = PM-PRI * CON_PRI ratio PM-FIL = PM-PRI - PM-CON PM10-FIL = PM-FIL * F10_FIL ratio PM10-PRI = PM-CON + PM10-FIL PM25-FIL = PM10-FIL / F10_F25 ratio PM25-PRI = PM-CON + PM25-FIL
10	PM25-FIL PM25-PRI	PMCON = PM25-PRI - PM25-FIL PM10-FIL = PM25-FIL * F10_F25 ratio PM10-PRI = PM-CON + PM10-FIL
11	PM-CON PM10-FIL PM25-FIL	PM10-PRI = PM-CON + PM10-FIL PM25-PRI = PM-CON + PM25-FIL
12	PM-CON	PM10-FIL = PM-CON * F10_CON ratio PM25-FIL = PM10-FIL * F25_F10 ratio PM10-PRI = PM-CON + PM10-FIL PM25-PRI = PM-CON + PM25-FIL
13	PM-CON PM10-FIL PM10-PRI	PM25-FIL = PM10-FIL / F10_F25 ratio PM25-PRI = PMCON + PM25-FIL
14	PM-CON PM10-FIL PM10-PRI PM25-FIL PM25-PRI	None required; all PM compounds present
15	PM-CON PM-FIL	PM10-FIL = PM-CON / CON_F10 ratio PM25-FIL = PM10-FIL / F10_F25 ratio PM10-PRI = PM-CON + PM10-FIL PM25-PRI = PM-CON + PM25-FIL
16	PM-CON PM10-PRI PM25-PRI	PM10-FIL = PM10-PRI - PM-CON PM25-FIL = PM25-PRI - PM-CON

Case	PM Reported	Augmentation Methodology
17	PM-FIL	PM10-FIL = PM-FIL * F10_FIL ratio PM_CON = PM10-FIL * CON_F10 ratio PM25-FIL = PM10-FIL / F10_F25 ratio PM10-PRI = PM-CON + PM10-FIL PM25-PRI = PM-CON + PM25-FIL

After completing the calculations, the data was QA checked to ensure that the calculations resulted in consistent values for the PM complement. On a few occasions, the mix of ratio value and the pollutants and values provided by the S/L agency resulted in negative values when FIL was back-calculated. In this case the negative FIL value was set to zero and the PRI value was readjusted. In a few cases the appropriate combination of ratios, SCC, and control efficiencies were not available to calculate the PM10-PRI and PM25-PRI values. In these cases, PM10-PRI and PM25-PRI were set equal.

1.4.4 PM Emission Results

Exhibit 5 compares the original PM emission estimates from the S/L submittals and the 2007 SEMAP emissions estimates calculated using the above methodology. This table is intended to show that we took whatever States provided in the way of PM and filled in gaps to add in PM-CON where emissions were missing in order to calculate PM_{10}-PRI and $PM_{2.5}$ -PRI for all processes to get a complete set of particulate data. A spreadsheet (PM State SCC Sums.xls) shows the results obtained from the PM augmentation process by State and SCC.

Exhibit 5 Comparison of PM Emissions from the Initial S/L Data Submittals and Version 1.1 of the SEMAP 2007 Point Source Inventory

State	Database	PM-CON	PM10-PRI	PM10-FIL	PM25-PRI	PM25-FIL
AL	S/L Data	0	0	57,285	0	29,173
	SEMAP	9,511	87,779	78,268	62,878	53,367
FL	S/L Data	0	0	26,234	0	0
	SEMAP	10,218	36,707	26,489	29,033	18,785
GA	S/L Data	0	20,066	0	9,426	0
	SEMAP	668	27,359	26,691	19,251	18,858
KY	S/L Data	0	24,699	206	2,019	196
	SEMAP	325	24,986	24,662	15,435	15,110
MS	S/L Data	883	18,871	5,986	11,071	1,739
	SEMAP	1,784	18,900	17,116	11,289	9,505
NC	S/L Data	18	46,852	28	30,055	16
	SEMAP	2,982	46,909	43,926	36,881	33,899
SC[1]	S/L Data	81	30,602	910	21,488	416
	SEMAP	909	31,904	30,995	24,235	23,326
TN[1]	S/L Data	11,177	26,708	12,826	19,734	7,048
	SEMAP	11,270	30,240	18,971	23,742	12,491

State	Database	PM-CON	PM10-PRI	PM10-FIL	PM25-PRI	PM25-FIL
VA[2]	S/L Data	4,783	19,203	14,419	14,888	10,105
	SEMAP	4,783	19,203	14,419	14,875	10,092
WV	S/L Data	129	6,444	7,507	4,462	3,398
	SEMAP	3,904	13,736	9,833	9,173	5,269

1) Includes PM records from EPA's 2005-based modeling inventory, which have already been augmented by EPA
2) Virginia's PM augmentation was previously performed using an identical augmentation process during the development of the 2007 inventory for the Northeast/Mid-Atlantic States

1.5 EMISSION RELEASE POINT QA CHECKS

Stack parameters are an important component of an emission inventory used for regional air quality modeling. Careful QA was required to ensure that the point source emissions were properly located both horizontally and vertically on the modeling grid. This section describes the procedures used to quality assure, augment, and where necessary, revise, stack parameters using standardized procedures to identify and correct stack data errors. These procedures were implemented within the NIF file itself, and are based on the QA procedures built into SMOKE that are designed to catch missing or out-of-range stack parameters.

1.5.1 QA Checks and Gap-Filling for Location Coordinates

The emission release (ER) point record is used to report the location and relevant physical attributes of the emission release point. Location coordinates must be reported to identify where emissions are released to the ambient air, via a stack or non-stack (e.g., fugitive release). If a non-stack, or fugitive release, coordinates may be reported for the general location of the emission release point. In the ER record, location data may be reported as x and y coordinates from either of two coordinate systems - Latitude / Longitude (LATLON), or Universal TransMercator (UTM). X and Y coordinates reported as Latitude and Longitude must be reported in the decimal degree format specified. X and Y coordinates reported as UTM Easting and UTM Northing, must be reported in kilometers. In order to comply with the EPA data standard for Latitude/Longitude, any UTM data received in the SESARM files was processed by the AMEC Team and converted to, and stored as Latitude Measure and Longitude Measure in decimal degrees.

All conversions of UTM to LATLON were conducting use a spreadsheet developed by the University of Wisconsin - Green Bay (Dutch 2005). This spreadsheet tool allowed for batch conversion of UTM data to decimal degree format and was configured for WGS 84 DATUM. While errors using this spreadsheet are typically a few meters, rarely 10 or more, the accuracy of the conversion is limited to the accuracy of the initial UTM data. A degree latitude/longitude is about 111,000 meters. Thus, to achieve roughly one-meter accuracy you need coordinates accurate to five decimal places. Four places will give you 10 meters accuracy and three will give you 100 meter accuracy. This accuracy could not be improved with the originally provided UTM coordinates, so all conversions should be checked for reasonableness.

Once all conversions were made to LATLON decimal degrees (also the requirement of the SMOKE emissions processing system), reasonableness checks were conducted on each release point relative to county centroids and min/max coordinates associated with the FIPS codes assigned to each stack. If a stack was found to exist outside of the western-, eastern-, northern- or southern-most boundary of the county (based on SMOKE's county lat/lon file), the point was flagged for additional review. These flagged sources were then mapped with GIS software to determine their placement relative to the FIPS County associated with the stack. If a source was found to be

outside of the county boundaries, it was further identified and reported for review by the data provider.

For version 1.10a of the inventory additional GIS checks were made by personnel from GA EPD to evaluate any remaining inconsistencies between reported latitude and longitudes and county boundaries. Corrections were made to several emission release points. The emission release points corrected are found in Appendix A.

1.5.2 QA Checks and Gap-Filling for Emission Release Parameters

In preparing emissions for grid modeling, valid parameters for the physical characteristics of each release point (stack height, diameter, temperature, velocity, and flow) are necessary to correctly place facility release points and associated emissions into vertical layers for proper air quality modeling. Gaussian dispersion models need stack parameters to characterize the plume, which is needed to estimate proper concentrations from these models. The first step of our quality assurance involves review of the Emission Release Point Type. Using this type code, we used a routine to assess the validity of the stack parameters, to replace values if necessary, and to fill-in missing data points. This methodology is virtually identical to the EPA methodology used for the 2002 NEI (EPA 2006a).

We employed a routine that compared each emission release point parameter to a minimum and maximum range of values and when that parameter was missing or was found to exist outside of that range, we augmented the parameter. We also checked non-fugitive stack parameters for internal consistency between:

- stack height and diameter, and
- stack diameter, exit gas velocity, and exit gas flow rate.

When internal consistency was not met, we provided replacement values for the parameters.

The following steps summarize the process of finding and replacing missing, out-of-range, or internally inconsistent stack parameters.

Step 1: For fugitive emission release points, replace stack parameters

For fugitive emission release points, we first compared the existing height against the following range thought to be representative of the minimum and maximum values allowable for most fugitive emission release points.

- Fugitive Release Height: 0.1 to 100 ft

If the height was valid, we kept the height and replaced all other stack parameters with the defaulted values listed below. If the height was invalid, we replaced all stack parameters with the defaulted values.

- Stack Height: 10 ft
- Stack Temperature: 72 ^{o}F
- Stack Diameter: 0.003ft
- Stack Velocity: 0.0003 ft/sec
- Stack Flow: 0 cu ft/sec

Step 2: For non-fugitive emission release points, find out-of-range or missing stack parameters

For non-fugitive emission release points, we first compared existing stack parameters against a set of the following ranges thought to be representative of the minimum and maximum values allowable for most emission release points.

- Stack Height: 0.1 to 1000 ft
- Stack Temperature: 50 to 1,800 ^{o}F
- Stack Diameter: 0.1 to 50 ft
- Stack Velocity: 0.1 to 560 ft/sec
- Stack Flow: 0.001 to 1,100,000 ft^3/sec

First we identified missing or out-of range parameters. Then we evaluated the source category to determine if out-of-range parameters were plausible. If any parameter was missing or out-of range, the parameter was replaced using the procedures described in Step 4. If all parameters were found to exist within the bounds of the emission release point ranges, we proceeded to Step 3.

Step 3: For non-fugitive emission release points, find inconsistencies in stack parameters

We determined any inconsistencies in stack parameters by conducting the following two steps.

A. For stack diameter, we compared the stack diameter to the stack height. For nonfugitive emission release points, the stack height may not be less than stack diameter.

B. We determined the internal consistency between diameter, velocity and flow rate using the following equation.

Stack Flow [cu ft/sec] = (Π [Pi] * (Stack Diameter [ft] / 2) ^ 2) * Stack Velocity [ft/sec]

If the calculated flow and the reported flow are within 10 % of one another, then internal consistency was assumed to be valid. If all parameters were found to exist within the bounds of the emission release point ranges in Step 2, and the consistency checks (A) and (B) in Step 3 were satisfied, no additional steps were taken. If any parameter was missing or out-of range, or if the parameters failed the internal consistency tests, the parameter was replaced using the procedures described in Step 4.

Step 4: Replace stack parameters for non-fugitive emission release points

The first step in replacing stack parameters was to determine if there are problems with stack height or diameter. Because stack height and diameter are the physical parameters that are most easily measured or estimated, when there are problems with these parameters, then the entire set of stack parameters are deemed questionable. If either height or diameter were missing or out-of range, or if the stack diameter was greater than stack height, then all five parameters were defaulted using national default sets of physical parameter data contained in the 2002 NEI Stack Parameter Default file (EPA 2006b). No additional steps were taken once all five parameters were defaulted.

If stack height and diameter did not need replacement, then velocity and flow rate were evaluated next. If velocity and flow rate were not internally consistent, we conducted QA on the flow rate to determine if it was reported in cubic feet per minute rather than cubic feet per second as required in the reporting to EPA.

We corrected flow rates reported in cubic feet per minute to cubic feet per second and then evaluated the flow rate and velocity for internal consistency. If the internal consistency was not met for velocity, flow rate, and diameter, Exhibit 6 provides instructions on how we replaced missing, out-

of-range values, or internally inconsistent values for velocity and flow rate based on different reported scenarios. Velocity and flow rate were augmented either by calculation or the use of national defaults.

Finally, in cases where all five parameters were not defaulted, and velocity and flow rate were evaluated and replaced if necessary, temperature was evaluated. If temperature was missing or out-of-range, then the temperature was defaulted using national default sets of physical parameter data in the order presented below.

1. SCC match
2. Facility level SIC Code match
3. National default for release points, if no SCC or SIC Code match is possible

Stack parameter QA reports were sent to all data providers. The report contained all of the emissions release point records submitted and identifies which parameters were defaulted as a result of our QA. S/L agencies were asked to review the defaulted records and revise the records if they do not agree with the defaulted values.

Exhibit 6 - Stack Parameter Data Replacement Matrix (X = Data value present)

Diameter	Velocity	Flow Rate	Action
X	X	X	1. Check that velocity is within range. A. If velocity is within range and flow rate does not meet internal consistency for diameter, velocity and flow rate, then: > Calculate flow rate using internal consistency formula. B. If velocity is not within range, then: > Calculate velocity using internal consistency formula. > Check that calculated velocity is within range. If so, then default to calculated velocity. > If calculated velocity is not within range, then default all 5 parameters using national default set.
X	-	X	1. Calculate velocity using internal consistency formula. 2. Check that calculated velocity is within range. A. If calculated velocity is not within range, then: > Default all 5 parameters using national default sets.
X	X	-	1. Check that velocity is within range. A. If velocity is within range, then: > Calculate flow rate using internal consistency formula. B. If velocity is not within range, then: > Default all 5 parameters using national default sets.
X	-	-	1. Default velocity using national default sets.

Diameter	Velocity	Flow Rate	Action
			2. Calculate flow rate using internal consistency formula.
-	X	X	1. Default all 5 parameters using national default sets.

1.6 STATE REVIEW OF INITIAL VERSION

This section describes changes made to the 2007 SEMAP point source inventory based on S/L agency review and comment. The following changes were incorporated to create Version 1.3 of the point source inventory.

1.6.1 Alabama

A large increase in VOC and PM emissions from 2002 to 2007 was identified during the review of Alabama's initial submittal. Alabama investigated this problem and identified a serious problem in their data conversion process. New EM and CE tables were provided in May 2010 to correct this problem. The new submittals were subjected to the same QA and PM augmentation processes described in previous sections.

Alabama reviewed the geographic coordinates for the 34 stacks that were flagged as being outside of the appropriate county boundaries. No changes were needed – the sources were either located off-shore (outside the county boundary) or very close to the edge of the county boundary.

In response to the QA checks of stack parameters, Alabama changed the emission release type to "01" (fugitive sources) for 98 and accepted the default fugitive emission release characteristics. For another 71 stacks, Alabama changed the emission release type to "02" (vertical release sources) and provided corrected stack parameters. Alabama also provided corrections for a number of additional stacks, either by accepting the recommended defaults or providing corrected data.

1.6.2 Alabama – Jefferson County

Stack parameter changes were made for fugitive emission release points that were recommended for change based on the QA checks and gap filling process described in Section 1.5.2 of this report.

1.6.3 Florida

Stack parameter changes were made for fugitive emission release points that were recommended for change based on the QA checks and gap filling process described in Section 1.5.2 of this report.

Florida updated the CAMD-to-NIF crosswalk table to link the CAMD and NIF identifiers. Florida updated cases where:

- the facility/emission unit may likely have been reported as a different facility (two CAMD ORIS facilities were combined in Florida's NIF SI table);
- the EU did not operate in 2007, which is why it was not included in Florida's NIF database; or
- typographical errors caused a mismatch between CAMD and NIF.

AMEC made the above updates and now all CAMD units have a match in Florida's NIF database.

1.6.4 Georgia

Georgia specified that 2008 emissions data should be backcasted to 2007 or and 2005 emissions data should be projected to 2007. The backcasting of 2008 emissions and projecting of 2005 emissions was performed in the following manner:

- Facilities with 2007 emissions do not get changed;
- For facilities with 2005 and 2008 emissions (but no 2007 emissions), 2007 emissions were estimated based on a linear interpolation between facility level 2005 and 2008 emissions on a pollutant-by-pollutant basis to calculate facility level 2007 emissions. A scaling factor was then calculated as the ratio of reported 2008 emissions to interpolated 2007 emissions, which was used to create to scale back 2008 reported emissions to 2007 at the emission process level.
- For facilities with only 2008 data (no 2007 or 2005 data available), we used the SIC growth factors from the VISTAS Best&Final inventory to backcast 2008 reported emissions to 2007. The VISTAS SIC growth factors were used to calculate a scaling factor which was used to scale back 2008 reported emissions to 2007 at the emission process level.
- For facilities with only 2005 data (no 2007 or 2008 data available), we used the SIC growth factors from the VISTAS Best&Final inventory to project 2005 reported emissions to 2007. The VISTAS SIC growth factors were used to calculate a scaling factor which was used to project 2005 reported emissions to 2007 at the emission process level.

After the above backcasting and projecting was performed, additional adjustments were made for facilities where only 2005 data were available and the facility did not operate in 2007 or operated for only part of 2007. Facilities that did not operate in 2007 were removed from the NIF files. For facilities that operated for part of 2007, the 2005 emissions were approximated for 2007 by multiply the 2005 emissions by a scaling factor of the number of days the facility operated in 2007 divided 365 days of full year operation. Also, the end date in the NIF EM and PE tables were changed to reflect the actual date that the facility ceased operation. These facilities were:

FIPS	PLANTID	FACILITY NAME	DATE SHUTDOWN	SCALING FACTOR
13159	15900011	Georgia-Pacific Corp Panelboard	15-Aug-07	0.62
13045	04500008	Southwire Co, Copper Division	7-Mar-07	0.18
13121	12100364	Ford Motor Co Atlanta Assembly	1-Dec-07	0.92
13121	12100004	General Shale Brick	28-Mar-07	0.24
13175	17500047	Victor Forstmann, Inc.	1-Apr-07	0.25
13081	08100019	Lasco Bathware	6-Nov-07	0.85
13089	08900031	Siemens Energy & Auto	1-Sep-06	0.00
13241	24100001	Rabun Apparel, Inc.	Not operated in 2007	0.00
13261	26100005	Textron Automotive Company	1-Feb-07	0.08

The following facilities reported emissions data to CAMD but were not in Georgia's NIF submittal:

FIPSST	FIPSCNTY	PLANTID	ORISID	FACILITY NAME
13	147	14700021	70454	HARTWELL ENERGY FACILITY

FIPSST	FIPSCNTY	PLANTID	ORISID	FACILITY NAME
13	149	14900004	55061	TENASKA GEORGIA
13	149	14900005	55141	HEARD COUNTY POWER LLC
13	149	14900006	7917	CHATTAHOOCHEE ENERGY FACILITY
13	149	14900007	7946	WANSLEY
13	153	15300040	7348	GEORGIA POWER COMPANY, ROBINS CT
13	153	15300042	55040	MID GEORGIA COGEN
13	157	15700034	7765	GEORGIA POWER COMPANY, DAHLBERG
13	205	20500043	7768	SOWEGA POWER LLC
13	205	20500044	55304	BACONTON POWER
13	207	20700030	7829	SMARR ENERGY CENTER
13	233	23300042	7813	SEWELL CREEK ENERGY
13	263	26300013	7916	TALBOT COUNTY ENERGY
13	293	29300027	55267	WEST GEORGIA GENERATING CO
13	297	29700040	7764	MPC GENERATING
13	297	29700041	55244	DOYLE GENERATING FACILITY
13	297	29700042	55128	WALTON COUNTY POWER LLC
13	303	30300039	55332	WASHINGTON COUNTY
13	303	30300040	55672	DUKE ENERGY SANDERSVILLE LLC

AMEC added these facilities and their associated emission units to the NIF tables. All of the units are gas-fired turbines. AMEC calculated 2007 emissions for these units in the following manner:

- NO_x – used the CAMD reported 2007 annual NO_x emissions
- SO_2 – used the CAMD reported 2007 annual SO_2 emissions
- CO – calculated annual CO emissions using the CAMD reported 2007 annual heat input (mmBtu/year) and the AP-42 emission factor of 0.03 lbs/mmBtu
- PM10-PRI – calculated annual PM10-PRI emissions using the CAMD reported 2007 annual heat input (mmBtu/year) and the AP-42 emission factor of 0.0066 lbs/mmBtu
- PM25-PRI – calculated annual PM25-PRI emissions using the CAMD reported 2007 annual heat input (mmBtu/year) and the AP-42 emission factor of 0.0066 lbs/mmBtu
- VOC – calculated annual VOC emissions using the CAMD reported 2007 annual heat input (mmBtu/year) and the AP-42 emission factor of 0.0021 lbs/mmBtu

These calculations were reviewed and approved by Georgia.

Stack parameter changes were made for fugitive emission release points that were recommended for change based on the QA checks and gap filling process described in Section 1.5.2 of this report.

1.6.5 Kentucky

Kentucky compared facility-level emissions in their State database to the emissions in the 2007 SEMAP inventory. They identified discrepancies at two facilities: (1) NRE Acquisition Co LLC (211450019), which appeared to be undercounted by 25.4955 tons of NO_x in the draft 2007 SEMAP inventory and (2) Chesapeake Applachia LLC (2119500252), which appeared to be undercounted by about 76.7157 tons VOC and 6.7362 tons of CO in the SEMAP inventory. These discrepancies

were identified and resolved, so that now the Kentucky database and the SEMAP 2007 are in agreement.

Kentucky provided updated latitude and longitude data for 677 stacks that were identified as being located outside of the county boundaries. Stack parameter changes for the stack diameter, flow rate, and velocity were made for fugitive emission release points that were recommended for change based on the QA checks and gap filling process described in Section 1.5.2 of this report. We retained Kentucky's values for stack height and exit gas temperature.

1.6.6 Kentucky – Jefferson County

Jefferson County updated the coordinates of emission release points for large and medium-sized point sources. Large sources are those with Title V operating permits. Medium-sized sources are those with synthetic minor operating permits. Most of these emission release points will match those reported in the 2007 National Emissions Inventory (NEI). Many of these coordinates were digitized using a geographic information system (GIS) in early April 2010. Others (those showing fewer significant digits in the UTM coordinates) were obtained by other means, usually by interpolation on USGS 1:24 000 scale paper maps. Generally the ones that were corrected were those that were found to be the most inaccurate as seen in the GIS. The 2007 SEMAP inventory was updated with this new location information.

1.6.7 Mississippi

In preparing the initial version of the 2007 SEMAP point source inventory, AMEC added facilities from EPA's 2005 NEI that were not included in Mississippi's 2007 submittal. Mississippi reviewed the facilities that were added and indicated that much of the data for the 2005 NEI facilities was for very small sources, contained dated emissions data, had some double-counting of sources, contained data for airports (which are included in the SEMAP nonroad inventory) and did not reliably represent emissions in 2007. As a result, Mississippi decided to remove most of the facilities added from the 2005 NEI from the 2007 SEMAP inventory. The emissions from these sources will be accounted for in the inventories for area and nonroad sectors.

Mississippi provided updated latitude and longitude data for 15 stacks that were identified as being located outside of the county boundaries.

Mississippi approved the stack parameter changes for the stacks that were recommended for change based on the QA checks and gap filling process described in Section 1.5.2 of this report. Most of these changes affected fugitive emission sources with a emission release point of "9999". These stacks were updated to change the emission release type to "01 – fugitive" and to use the default fugitive emission release stack parameters described in Section 1.5.2.

Mississippi reviewed the CAMD-to-NIF crosswalk and updated several linkages to correctly map CAMD identifiers to NIF. Three facilities (BTEC New Albany ORIS 13213, Natchez ORIS 2052, and AP Holdings Southhaven ORIS 55219) are currently shut down and did not operate in 2007. Choctaw Gas generation (ORIS 55634), and RRI Energy (ORIS 55706), are newer and were not completely represented in Mississippi's original submittal. Mississippi provided the necessary stack data for modeling for both of these facilities.

1.6.8 North Carolina

A large increase in VOC emissions from 2002 to 2007 was identified during the review of North Carolina's initial submittal. North Carolina investigated this problem and identified a serious problem in their data conversion process. A new spreadsheet table was provided in May 2010 to correct this problem. AMEC converted the spreadsheet file a NIF database. The new submittals were subjected to the same QA and PM augmentation processes described in previous sections.

North Carolina reviewed the geographic coordinates for the stacks that were flagged as being outside of the appropriate county boundaries. The new submittal mentioned in the previous paragraph contained corrections to the flagged latitude and longitude issues.

NC has reviewed the recommended stack replacement parameters and agreed to accept all of the recommendations based on the SCC code.

In addition, Duke Energy provided additional corrections for stack parameters for 2007. For the Marshall Steam Plant, new FGD stacks were installed in May 2007 (combined stack for Units 1&2), March 2007 (Unit 3) and May 2006 (Unit 4). For other plants (Belews Creek, Cliffside, and G.G. Allen), new stacks will become operational after 2007.

1.6.9 North Carolina – Buncombe County

Buncombe County approved the stack parameter changes for the stacks that were recommended for change based on the QA checks and gap filling process described in Section 1.5.2 of this report. In a few cases, Buncombe County updated the original stack parameters for certain stacks and requested that the updated stack data be used.

The geographic coordinates were inadvertently truncated (not rounded) to 1/100th of a degree during the compilation of the initial SEMAP inventory. This problem was corrected in Version 1.3.

Buncombe County compared a sampling of the 2007 SEMAP inventory to what they had submitted and found them to be in agreement.

1.6.10 North Carolina – Forsyth County

Forsyth County reviewed the data in the SEMAP 2007 inventory and emissions data for the more significant processes, i.e. the highest emitting sources. The emissions for all pollutants except PM for the processes they reviewed matched their data. The PM emissions did not match the data they provided data in a few cases. The reason for this difference is due to correcting inconsistencies in the reported PM data during the PM augmentation process. For example, the Corn Products International facility (ID 3706700732, emission point ES062C, process ID 62C-W had reported PM-CON emissions of 11.58 tons but PM10-PRI emissions of only 3.41 tons. Since PM-CON cannot be greater than PM10-PRI, the PM10-PRI value was replaced during the PM augmentation process.

Forsyth County provided the mission facility name (Wake Forest University) for Facility ID 3706700003.

The geographic coordinates were incorrect for many facilities. These have been replaced for all facilities in Forsyth County.

1.6.11 North Carolina – Mecklenburg County

Mecklenburg County approved the stack parameter changes for the stacks that were recommended for change based on the QA checks and gap filling process described in Section 1.5.2 of this report.

1.6.12 South Carolina

In preparing the initial version of the 2007 SEMAP point source inventory, AMEC added facilities from EPA's 2005 NEI that were not included in South Carolina's 2007 submittal. South Carolina reviewed the facilities that were added and indicated that much of the data for the 2005 NEI facilities was for very small sources, contained dated emissions data, had some double-counting of sources, contained data for airports (which are included in the SEMAP nonroad inventory) and did not reliably represent emissions in 2007. As a result, South Carolina decided to remove many of the facilities

added from the 2005 NEI from the 2007 SEMAP inventory because they were either minor sources, out of business, or airports. The emissions from these sources will be accounted for in the inventories for area and nonroad sectors.

South Carolina provided updated latitude and longitude data for 14 stacks that were identified as being located outside of the county boundaries. Five of these stacks were associated with facilities from the 2005 NEI which were removed from the SEMAP inventory. For the remaining stacks that were flagged, the facility level latitude and longitude were used to more accurately locate the stack.

South Carolina approved the stack parameter changes for the stacks that were recommended for change based on the QA checks and gap filling process described in Section 1.5.2 of this report. In several cases, South Carolina updated the original stack parameters for certain stacks and requested that the updated stack data be used.

South Carolina reviewed the PM augmentation of PM10-PRI and $PM_{2.5}$-PRI and generally agreed with the small increases in the PM10-PRI and $PM_{2.5}$-PRI emissions resulting from the augmentation process. South Carolina expressed a concern about the increases that were made to the certain fuel burning SCCs (20100101, 20100201, and 20200201). The reason for the small PM10-PRI and PM25-PRI increase for these SCCs was that a few facilities had reported PM10-FIL and PM25-FIL, not PM10-PRI and PM25-PRI. Since the PM10-FIL and PM25-FIL were reported, the augmentation process calculated a PM-CON value and added it to the PM10-FIL and PM25-FIL values to get the revised PM10-PRI and PM25-PRI values.

South Carolina reviewed the CAMD-to-NIF crosswalk and updated several linkages to correctly map CAMD identifiers to NIF. South Carolina also compared the CAMD-reported NO_x and SO_2 emissions to the NIF-reported emissions, and updated the NIF emissions for several coal-fired plants with the CAMD emissions after consulting with the affected facilities.

1.6.13 Tennessee

In preparing the initial version of the 2007 SEMAP point source inventory, AMEC added facilities from EPA's 2005 NEI that were not included in Tennessee's 2007 submittal. Tennessee reviewed the facilities that were added and indicated that much of the data for the 2005 NEI facilities was for very small sources, contained dated emissions data, had some double-counting of sources, contained data for airports (which are included in the SEMAP nonroad inventory) and did not reliably represent emissions in 2007. As a result, Tennessee decided to remove most of the facilities added from the 2005 NEI from the 2007 SEMAP inventory. The emissions from these sources will be accounted for in the inventories for area and nonroad sectors.

Tennessee provided updated 2007 emissions data for 16 facilities that were not in their original submittal:

FIPS	Facility Identifier	Facility Name
47149	0155	NISSAN NORTH AMERICA, INC.
47027	0022	HONEST ABE LOG HOMES, INC., ETC.
47029	0020	SONOCO PRODUCTS COMPANY
47031	0010	ARNOLD ENGINEERING DEVELOPMENT CENTER
47031	0067	BATESVILLE MANUFACTURING, INC.
47031	0113	M-TEK, INC.
47031	0123	CREATEC CORPORATION
47047	0080	STABILT AMERICA, INC

FIPS	Facility Identifier	Facility Name
47053	0119	Kongsberg Automotive
47071	0074	PRAXIS INDUSTRIES
47077	0060	VOLVO PENTA MARINE PRODUCTS, L.C.
47113	0020	ARMSTRONG HARDWOOD FLOORING
47125	0092	NYRSTAR CLARKSVILLE, INC
47151	0002	HARTCO FLOORING COMPANY
47151	0051	ARMSTRONG HARDWOOD FLOORING
47167	0079	QW MEMPHIS CORPORATION - COVINGTON DIVISION

Tennessee provided updated latitude and longitude data for 25 stacks that were identified as being located outside of the county boundaries. Tennessee also provided changes to the stack parameters for 29 stacks. Stack parameter changes were made for fugitive emission release points that were recommended for change based on the QA checks and gap filling process described in Section 1.5.2 of this report.

1.6.14 Tennessee – Davidson County

Davidson County reviewed the draft point source emission inventory and approved the emissions contained in it.

Davidson County approved the stack parameter changes for 723 stacks that were recommended for change based on the QA checks and gap filling process described in Section 1.5.2 of this report. In several cases, Davidson County provided updated stack parameters for selected stacks.

1.6.15 Tennessee – Hamilton County

Stack parameter changes were made for fugitive emission release points that were recommended for change based on the QA checks and gap filling process described in Section 1.5.2 of this report. Hamilton County provided updated stack latitude and longitude for three facilities that were identified as being located outside of the county boundaries.

1.6.16 Tennessee – Knox County

Stack parameter changes were made for fugitive emission release points that were recommended for change based on the QA checks and gap filling process described in Section 1.5.2 of this report. Knox County provided updated stack latitude and longitude for one facility that was identified as being located outside of the county boundaries.

1.6.17 Tennessee – Shelby County

Shelby County approved the stack parameter changes for 765 stacks that were recommended for change based on the QA checks and gap filling process described in Section 1.5.2 of this report. In a few cases, Shelby County provided updated stack parameters for selected stacks.

Hamilton County provided updated stack latitude and longitude for facilities that were flagged as being located outside of the county boundaries.

1.6.18 Virginia

Virginia provided updated latitude and longitude data for 115 stacks that were identified as being located outside of the county boundaries.

Virginia approved the stack parameter changes for 540 stacks that were recommended for change based on the QA checks and gap filling process described in Section 1.5.2 of this report. The only exception was for the Jewel Coke Company (ID 51027-00004, stacks 1 and 3), where Virginia requested that the original stack exhaust gas temperatures of 1500 degrees Fahrenheit be retained.

As part of the development of a 2007 inventory for the Mid-Atlantic and Northeast States directed by MARAMA, Virginia developed and approved the 2007 CAMD-to-NIF crosswalk and the 2007 emission values for all sources.

1.6.19 West Virginia

West Virginia approved the stack parameter changes for 540 stacks that were recommended for change based on the QA checks and gap filling process described in Section 1.5.2 of this report. There were four exceptions (Aker Plastics 5400300026, Gratech International 5403300001, Monongahela Power Harrison 5403300015, DuPont Belle 5403900001) where West Virginia requested that the original stack parameters for certain stacks be retained.

West Virginia reviewed the locations for the seven facilities flagged as being outside of the county boundaries and provided updated stack latitude and longitude for these facilities.

West Virginia reviewed the draft emission inventory and confirmed that all point source facilities are represented in the inventory, that the PM augmentation procedure produced reasonable results, and the 2007 emissions in the SEMAP inventory agreed with the data they submitted.

West Virginia reviewed the CAMD-to-NIF crosswalk and identified the linkage between CAMD and NIF identifiers for the Union Carbide Corporation (5403900003) boilers B25, B26, and B27. West Virginia approved all other linkages between CAMD and NIF identifiers.

1.7 STAKEHOLDER REVIEW

S/L agencies provided access to Version 1.3 of the 2007 point source inventory and solicited input from various stakeholders including EPA, the regulated community, academia, environmental groups, and the general public. This section documents the changes made to Version 1.3 based on S/L agency review of stakeholder comments as well as any additional updates or corrections identified by the S/L agencies.

1.7.1 Alabama

The National Lime Association requested consideration of a modification to PM emissions data for one of their facilities in Alabama (Unimin Lime Corporation, Calera Plant). The request was reviewed by State staff and the suggested correction was justified and made.

1.7.2 Florida

Lakeland Electric requested that the SO_2 and NO_x emission values from the EPA CAMD submittal be used instead of the values reported to the State. The CAMD represent the emissions more accurately that the State submittal for two plants (Plant IDs 1050004 and 1050003). Florida agreed to make these changes.

Tampa Electric reviewed the database and suggested several corrections. Most of the changes are due to the installation and operation of the SCR control devices on Big Bend units 1-4. Tampa Electric also evaluated filterable and condensable PM emissions for all of its major generating units and provided better, unit specific, emission rates for these units where available. Finally, Tampa

Electric provided some corrections to stack exhaust gas parameters. Florida agreed to make all of these changes.

Southern Company indicated that the inventory stack data for Crist plant reflects the current scrubbed stack parameters, not the operating parameters in 2007. Appropriate stack parameters for 2007 were submitted and reviewed/approved by Florida.

1.7.3 Georgia

Georgia reviewed the emissions values and stack parameters for the Georgia Power facilities in the State. Georgia provided updated PM and NH_3 emissions data for all Georgia Power facilities. The revised PM emission values included condensable emissions which were previously missing from the inventory. Georgia also provided updated stack parameters for selected Georgia Power stacks.

Georgia also identified a number of emission units where the $PM_{2.5}$ emissions were greater than the PM10 emissions. The source of this error was investigated and identified, and revisions were made to correct this error.

1.7.4 Kentucky

Kentucky identified that the PM point source emissions originally submitted for all Kentucky counties, excluding Jefferson County, should be considered as filterable PM emissions. The original submittal contained pollutant codes (PM-PRI, PM10-PRI, PM25-PRI) that represent the sum of filterable and condensable emissions. These should have been reported as filterable only (PM-FIL, PM10-FIL, PM25-FIL). AMEC changed the pollutant codes to represent filterable emissions only, and re-ran the PM augmentation process described previously in Section 1.4 to add condensable emissions to the filterable emissions. Kentucky reviewed and approved the revised PM emissions, except for a few EGUs. Kentucky worked with these utilities in obtaining updated PM emissions data that included both filterable and condensable emissions. These changes to the EGU PM emissions are discussed further in Section 1.9.

1.7.5 North Carolina

Duke Energy indicated that the SCC for Marshall Units 1&2 were 10200202 and 10200502 (industrial boiler, coal and oil) but should be 10100202 and 10100502 (electric generation boiler, coal and oil). Duke Energy requested that the SCC be changed as that will impact how boilers are grouped by category for various regulatory and emission projection scenarios.

1.7.6 Tennessee

Tennessee identified three facilities (APAC-TN Harrison Construction Division, Dyersburg Compressor Station, Kimberly Clark Corporation) that had duplicate entries in the emission inventory. AMEC investigated this issue and identified the error. The duplicate entries were removed.

Tennessee also provided updated 2007 emissions data for the CalsonicKansei North America - Lewisburg Operations facility.

1.8 IDENTIFICATION OF EGU AND NONEGU POINT SOURCES

States were asked to classify units in the 2007 SEMAP emissions inventory as either EGU or nonEGU for emission projection purposes. Emission projections for EGU point sources are being developed by the Eastern Regional Technical Advisory Committee (ERTAC). The emissions from point sources classified as nonEGUs will be projected using the methods and data developed by SEMAP.

Most, but not all, of the units that are required to report hourly emissions to EPA's Clean Air Markets Division (CAMD) are considered to be EGUs. CAMD implements EPA's rule found in Volume 40 Part 75 of the Code of Federal Regulations (CFR), which requires an hourly accounting of emissions from each affected unit - i.e., sources participating in an emissions cap and trade program under the Acid Rain Control Program, the NO_x Budget Trading Program, or the Clean Air Interstate Rule. The following guidance was provided to States to determine whether a unit that reports to CAMD should be classified as an EGU or nonEGU:

For the ERTAC process, a unit should only be considered EGU if it meets the following criteria:

- An EGU sells most of the power generated to the electrical grid;
- An EGU burns mostly commercial fuel. Commercial fuel in this case means natural gas, oil, and coal. Wood would not be considered as commercial fuel because some states have them as renewable, therefore, to prevent double counting, unless it's already in the CAMD database, units that burn wood and other renewable sources (depending on each state's own definition) should not be considered as EGU.

The following units were NOT considered as EGU for the purpose of projection emissions:

- A unit that generates power for a facility but occasionally sells to the grid;
- Emergency generators;
- Distributed generation units.

S/L agencies were provided with a list of units that report to CAMD as well as a list of units with an electric generating unit SCC (1-01-xxx-xx or 2-01-xxx-xx). From these lists, S/L agencies identified units that should be classified as EGUs and those that should be classified as nonEGUs. A few States also identified units with SCCs beginning with 1-01 or 2-01 that do not report to CAMD but which should be classified as EGUs; however, for emission projection purposes these units will be processed using the nonEGU projection methodology developed by SEMAP.

AMEC added a flag to the NIF EP table to identify each unit according to the following classification scheme:

- **EGU-CAMD** are combustion units that report hourly emissions to the CAMD database and have been classified as EGUs by the S/L agency;
- **EGU-nonCAMD** are combustion units with SCC starting with 101 or 201 that are not contained in CAMD database;
- **nonEGU-CAMD** are combustion units that report hourly emissions to the CAMD database and have been classified as nonEGUs by the S/L agency; and
- **nonEGU-nonCAMD** are all other point sources not classified above.

The above flags allow for sources to be categorized in different ways for emission projection and emission reporting purposes.

1.9 FINAL S/L AGENCY QA REVIEW

Two final QA checks were made. The first check was for S/L agencies to verify the PM emissions data for coal- and oil-fired units included PM condensable emissions in addition to PM filterable emissions. The second check was for S/L agencies to verify the location and emission values for certain sources via review of emission bubble plots prepared by another SEMAP contractor. This section documents the changes made based on these final QA checks. In addition, the documentation was revised to address comments provided by EPA Region 4.

1.9.1 Kentucky

Kentucky coordinated the review of PM emissions with utilities in the Commonwealth and provided updated PM condensable emissions for the following units:

- Duke Energy East Bend (21-015-00029) Unit 2;
- TVA Shawnee (21-145-00006) Units 1 through 10;
- TVA Paradise (21-177-00006) Units 1, 2, and 3; and
- Kentucky Energy Reid/Henderson (21-233-00001) Units H1 and H2

1.9.2 North Carolina

Both Duke Energy and Progress Energy submitted information to confirm that the $PM_{2.5}$-PRI and PM10-PRI emission estimates for its facilities do include both filterable and condensable values.

1.9.3 North Carolina – Forsyth County

In its original submittal, Forsyth County submitted a mix of 2007 and 2008 emission data. After further reviewing the 2007 and 2008 data, Forsyth County identified several revisions to make the data more representative of 2007. One facility (VP Buildings, Inc., Plant ID 00488) that shut down in 2008 was omitted for the initial submittal and was added to the SEMAP 2007 inventory. The only other significant change was the addition of the coal boilers at R.J. Reynolds Tobacco Company (Plant ID 00039) to the SEMAP 2007 inventory that were shut down in 2008. Some additional relatively minor corrections were made as well.

1.9.4 South Carolina

South Carolina confirmed that the PM condensable emissions are included in the PM10-PRI and $PM_{2.5}$-PRI data provided for coal- and oil-fired EGUs.

1.9.5 Virginia

Virginia confirmed that the PM condensable emissions are included in the PM10-PRI and $PM_{2.5}$-PRI data provided for coal- and oil-fired EGUs.

1.9.6 West Virginia

After reviewing the emission density maps and emission bubble plots, West Virginia submitted revisions to the geographic coordinates at three facilities (54-009-00012 Impress USA, 54-021-00001 Columbia Gas Glenville, 54-057-00008 Newpage Corporation).

1.9.7 Changes for Version 1.9 of the Point Source Inventory

The information presented above relates to Version 1.8 of the point source inventory. This section documents the changes to Version 1.8 of the SEMAP point source emission inventory to create Version 1.9. The purpose of these revisions were to resolve significant differences in emissions as reported by States in Version 1.8 and the emissions as reported in the Clean Air Market Division's hourly emission database. Each change that was made is identified along with the CAMD and SEMAP unit identifiers:

- CAMD_ID = Plant ORIS / Boiler ID
- SEMAP_ID = FIPS county code / PlantID / PointID / ProcessID

Several States have indicated that they would like to the SEMAP inventory to be updated to reflect the CAMD NO_x and SO_2 emissions. These changes have not yet been made pending the resolution of the potential adjustments to the CAMD emissions to account for overly conservative missing data

substitution procedures specified by EPA. Once States review the proposed revisions to the CAMD emissions to account for missing data substitution, States will be given the opportunity to specify the NO_x and SO_2 emissions to be used in the final SEMAP 2007 inventory. The choices are: 1) retain State-supplied emissions; 2) use CAMD emissions as provided in standard EPA data sets; or 3) use CAMD emissions as modified by SEMAP to account for overly conservative missing data substitution values.

1.9.7.1 Alabama

Alabama Power EC Gaston (CAMD_ID = 26 / 1; SEMAP_ID = 01117 / 0005 / 002 / 01)
SEMAP NO_x changed from 1,292 tons to 3,271.6 tons to match CAMD emissions

Alabama Power Gorgas (CAMD_ID = 8 / 10; SEMAP_ID = 01127 / 0001 / 008 /01
SEMAP NO_x changed from 5,117 tons to 5,727.5 tons to match CAMD emissions

PowerSouth Energy Coop (CAMD_ID = 56 / 2; SEMAP_ID = 01129/ 0001/ 003 / 01
SEMAP NO_x changed from 4,559 tons to 3,717 tons to match CAMD emissions

PowerSouth Energy Coop (CAMD_ID = 56 / 3; SEMAP_ID = 01129/ 0001/ 003 / 01
SEMAP NO_x changed from 4,698 tons to 4,995.5 tons to match CAMD emissions

1.9.7.2 Alabama – Jefferson County

No issues identified.

1.9.7.3 Florida

TECO Big Bend (CAMD_ID = 645 / BB01; SEMAP_ID = 12057 / 0570039 / 1 / 1)
SEMAP NO_x changed from 4,507 tons to 10,044 tons to match CAMD emissions
SEMAP SO_2 changed from 1,610 tons to 2,999 tons to match CAMD emissions

TECO Big Bend (CAMD_ID = 645 / BB02; SEMAP_ID = 12057 / 0570039 / 2 / 2)
SEMAP NO_x changed from 3,889 tons to 10,051 tons to match CAMD emissions
SEMAP SO_2 changed from 1,389 tons to 2,717 tons to match CAMD emissions

TECO Big Bend (CAMD_ID = 645 / BB03; SEMAP_ID = 12057 / 0570039 / 3 / 3)
SEMAP NO_x changed from 1,571 tons to 3,838 tons to match CAMD emissions
SEMAP SO_2 changed from 2,035 tons to 1,773 tons to match CAMD emissions

TECO Big Bend (CAMD_ID = 645 / BB01; SEMAP_ID = 12057 / 0570039 / 1 / 1)
BoilerID in SEMAP EP Table changed from BB**O**4 to BB**0**4 to match CAMD boiler ID
SEMAP NO_x changed from 1,183 tons to 1,192 tons to match CAMD emissions
SEMAP SO_2 changed from 2,305 tons to 2,414 tons to match CAMD emissions

1.9.7.4 Georgia

No changes requested by State.

1.9.7.5 Kentucky

Kentucky provided revised SEMAP-to-CAMD mapping for the seven turbines at the KY Utilities Brown Station (CAMD_ID 1355 / #5 to #11; SEMAP_ID 21167 / 00001 /023-29). The revised mapping for emission point 023-29 is as follows:

SEMAP Process ID	V_1_8 CAMD Boiler ID	Revised V_1_9 CAMD Boiler ID
2	5	5

SEMAP Process ID	V_1_8 CAMD Boiler ID	Revised V_1_9 CAMD Boiler ID
3	5	8
4	6	8
5	6	9
6	7	9
7	7	10
8	8	10
9	8	11
10	9	11
11	9	6
12	10	6
13	10	7
14	11	7

1.9.7.6 Kentucky – Jefferson County
No issues identified.

1.9.7.7 Mississippi
No changes requested by State.

1.9.7.8 North Carolina
No changes requested by State.

1.9.7.9 North Carolina – Buncombe County
No issues identified for Progress Energy – Ashville.

1.9.7.10 North Carolina – Forsyth County
No affected facilities in the county.

1.9.7.11 North Carolina – Mecklenburg County
No affected facilities in the county.

1.9.7.12 South Carolina

SCE&G Urquhart (CAMD_ID = 3295; SEMAP_ID = 45003 / 0080-0011)

There was an incorrect linkage between the IDs for the combustion turbines. The SEMAP NIF EP table was changed to correctly match CTs 4, 5, 6 between the CAMD and SEMAP inventories

CAMD unit URQ4 is now linked to EU11 (previously was linked to EU04 – CT 1)
CAMD unit URQ5 is now linked to EU12 (previously was linked to EU05 – CT 2)
CAMD unit URQ6 is now linked to EU13 (previously was linked to EU06 – CT 3)

Progress Energy Robinson (CAMD_ID = 3250 / 12; SEMAP_ID = 45031 / 0820-0002 / 017 / 3)
SEMAP NO_x changed from 3.9 tons to 0 tons to match CAMD emissions
SEMAP SO_2 changed from 1.183 tons to 0 tons to match CAMD emissions

Progress Energy Robinson (CAMD_ID = 3250 / 12; SEMAP_ID = 45031 / 0820-0002 / 017 / 4)
SEMAP NO_x changed from 45 tons to 33.6 tons to match CAMD emissions
SEMAP SO_2 changed from 1.178 tons to 1.42 tons to match CAMD emissions

Progress Energy Robinson (CAMD_ID = 3250 / 13; SEMAP_ID = 45031 / 0820-0002 / 018 / 3)
SEMAP NO_x changed from 18.3 tons to 0 tons to match CAMD emissions
SEMAP SO_2 changed from 0.847 tons to 0 tons to match CAMD emissions

Progress Energy Robinson (CAMD_ID = 3250 / 13; SEMAP_ID = 45031 / 0820-0002 / 018 / 4)
SEMAP NO_x changed from 42.4 tons to 31.31 tons to match CAMD emissions
SEMAP SO_2 changed from 1.108 tons to 1.05 tons to match CAMD emissions

Santee Cooper Rainey (CAMD_ID = 7834 / CT1A; SEMAP_ID = 45007 / 0200-0144 / 001 / 1)
SEMAP NO_x changed from 218.17 tons to 19.71 tons to match CAMD emissions

Santee Cooper Rainey (CAMD_ID = 7834 / CT1B; SEMAP_ID = 45007 / 0200-0144 / 001 / 3)
SEMAP NO_x changed from 218.17 tons to 19.71 tons to match CAMD emissions

Santee Cooper Rainey (CAMD_ID = 7834 / CT2A; SEMAP_ID = 45007 / 0200-0144 / 002 / 1)
SEMAP NO_x changed from 33.40 tons to 16.29 tons to match CAMD emissions

Santee Cooper Rainey (CAMD_ID = 7834 / CT2B; SEMAP_ID = 45007 / 0200-0144 / 002 / 3)
SEMAP NO_x changed from 32.40 tons to 18.21 tons to match CAMD emissions

Santee Cooper Rainey (CAMD_ID = 7834 / CT3; SEMAP_ID = 45007 / 0200-0144 / 003 / 1)
SEMAP NO_x changed from 0.072 tons to 4.4 tons to match CAMD emissions

Santee Cooper Rainey (CAMD_ID = 7834 / CT4; SEMAP_ID = 45007 / 0200-0144 / 003 / 2)
SEMAP NO_x changed from 0.060 tons to 5.13 tons to match CAMD emissions

Santee Cooper Rainey (CAMD_ID = 7834 / CT5; SEMAP_ID = 45007 / 0200-0144 / 003 / 3)
SEMAP NO_x changed from 0.078 tons to 4.79 tons to match CAMD emissions

SCE&G Hagood (CAMD_ID = 3285 / HAG4; SEMAP_ID = 45019 / 0560-0029 / 001 / 2)
SEMAP NO_x changed from 21.1 tons to 31.28 tons to match CAMD emissions
SEMAP SO_2 changed from 34.5 tons to 1.22 tons to match CAMD emissions

1.9.7.13 Tennessee

U.S. DOE, Y-12 PLANT (CAMD_ID = 880055 / 31&32&34; SEMAP_ID 47001 / 0020 / 002)
CAMD units 31, 32, and 34 had no match in the SEMAP inventory. Tennessee provided the SEMAP identifiers to provide the correct linkage between CAMD and SEMAP. The NIF EP table was changed to provide the cross-reference between CAMD and SEMAP identifiers.

Bowater Calhoun (CAMD_ID = 50956 / 11& 12; SEMAP_ID = 47107 / 0012 / 015)
CAMD reports two coal-fired boilers #11 and #12. In SEMAP, there is only one emission point -015 – that is a coal fired boiler. To improve the match between CAMD and SEMAP, new records were created in the SEMAP database to disaggregate emissions from boilers #11 and #12 into individual records using the NO_x and SO_2 emissions data provided by Tennessee.

TVA Cumberland (CAMD_ID = 3399 / A1; SEMAP_ID = 47161 / 0011 / 003 / 01)
The SEMAP inventory reported 15.3 tons of NO_x for Auxiliary boiler A1 , which was based on allowable emissions and is conservative. For 2007, based on a tested NO_x rate of 0.067lb/mmBtu and fuel usage of 132317 gallons of #2 oil, NO_x emissions for Auxiliary boiler A1 changed to 0.6 ton.

TVA Cumberland (CAMD_ID = 3399 / A2; SEMAP_ID = 47161 / 0011 / 004 / 01)

The SEMAP inventory reported 15.3 tons of NO_x for Auxiliary boiler A2, which was based on allowable emissions and is conservative. This unit was not in service in 2007 and does not show up in CAMD for 2007. It did not become operational until 2008. Boiler A2 was inadvertently included in the 2007 SEMAP emission database submittal. All emissions for this unit were changed to 0 for the 2007 SEMAP inventory.

1.9.7.14 Tennessee – Davidson County (Nashville)

Eastman Chemical (CAMD_ID = 50481 / 83-23 & 83-24; SEMAP_ID = 47163 / 0003 / 020101)

In the SEMAP V1_8 inventory, the two boilers #23 and #24 were included as a group with boilers #11-22. To improve the match between CAMD and SEMAP, new records were created in the SEMAP database to disaggregate emissions from boilers #23 and #24 into individual records using the NO_x and SO_2 emissions data provided by Tennessee.

Eastman Chemical (CAMD_ID = 50481 / 253-25, 253-26, 253-27, 253-28 and 253-29; SEMAP_ID = 47163 / 0003 / 021520)

In the SEMAP V1_8 inventory, the five boilers #25 to #29 were grouped together as a single emission point. To improve the match between CAMD and SEMAP, new records were created in the SEMAP database to disaggregate emissions for each boiler #25 to #29 into individual records using the NO_x and SO_2 emissions data provided by Tennessee.

Eastman Chemical (CAMD_ID = 50481 / 325-30 & 325-31; SEMAP_ID = 47163 / 0003 / 261501)

In the SEMAP V1_8 inventory, the two boilers #30 and #31 were grouped together as a single emission point. To improve the match between CAMD and SEMAP, new records were created in the SEMAP database to disaggregate emissions for each boiler #30 to #31 into individual records using the NO_x and SO_2 emissions data provided by Tennessee.

1.9.7.15 Tennessee – Hamilton County (Chattanooga)

No affected facilities in the county.

1.9.7.16 Tennessee – Knox County (Knoxville)

No affected facilities in the county.

1.9.7.17 Tennessee – Shelby County (Memphis)

No issues identified.

1.9.7.18 Virginia

Virginia provided detailed comments on how to create hourly emissions for each unit in CAMD. No specific changes were requested to the SEMAP inventory.

1.9.7.19 West Virginia

No changes requested by State.

1.9.8 Changes for Version 1.10a of the Point Source Inventory

This section documents the changes to Version 1.9 of the SEMAP point source emission inventory to create Version 1.10a. The purpose of these revisions were to resolve significant differences in emissions as reported by States in Version 1.9 and the CEMs emissions as reported in the Clean Air Market Division's hourly emission database. Each change that was made is identified along with the CAMD and SEMAP unit identifiers:

- CAMD_ID = Plant ORIS / Boiler ID

- SEMAP_ID = FIPS county code / PlantID / PointID / ProcessID

These changes were made because a number of States have indicated that they would like to have the SEMAP inventory updated to reflect the CAMD NO_x and SO_2 emissions from CEMS data. These changes had not been made in version 1.9 because of potential adjustments to the CAMD emissions to account for overly conservative missing data substitution procedures specified by EPA. Once States were allowed to review the proposed revisions to the CAMD emissions to account for missing data substitution, they were given the opportunity to specify the NO_x and SO_2 emissions to be used in the final SEMAP 2007 inventory. The choices were: 1) retain State-supplied emissions; 2) use CAMD emissions as provided in standard EPA data sets; or 3) use CAMD emissions as modified by SEMAP to account for overly conservative missing data substitution values.

In addition to the changes requested for the CEMS data, there were other changes made as a result of consultation with the States. Those changes are listed separately. Finally, a number of emission release points were identified as having incorrect latitude/longitude values. The final portion of this section details the emission release points that were modified and the new latitude/longitude values.

The information below identifies those facilities that had their emissions changed as a result of the CEMS review.

1.9.8.1 Alabama

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
01001	Southern Power Company	0010	001	01	7897	1A	NOX	42.6310
01001	Southern Power Company	0010	001	01	7897	1A	SO2	2.0580
01001	Southern Power Company	0010	002	01	7897	1B	NOX	42.8550
01001	Southern Power Company	0010	002	01	7897	1B	SO2	2.0840
01001	Southern Power Company	0010	003	01	7897	2A	NOX	37.7570
01001	Southern Power Company	0010	003	01	7897	2A	SO2	1.5300
01001	Southern Power Company	0010	004	01	7897	2B	NOX	33.3530
01001	Southern Power Company	0010	004	01	7897	2B	SO2	1.4720
01001	Tenaska Alabama II Partners LP	0009	001	01	55440	CTGDB1	NOX	14.5440
01001	Tenaska Alabama II Partners LP	0009	001	01	55440	CTGDB1	SO2	0.5460
01001	Tenaska Alabama II Partners LP	0009	002	01	55440	CTGDB2	NOX	12.6970
01001	Tenaska Alabama II Partners LP	0009	002	01	55440	CTGDB2	SO2	0.4900
01001	Tenaska Alabama II Partners LP	0009	003	01	55440	CTGDB3	NOX	11.2240
01001	Tenaska Alabama II Partners LP	0009	003	01	55440	CTGDB3	SO2	0.4670
01001	Tenaska Alabama Partners LP	0008	001	01	55271	CT1	NOX	15.9050
01001	Tenaska Alabama Partners LP	0008	001	01	55271	CT1	SO2	0.7310
01001	Tenaska Alabama Partners LP	0008	002	01	55271	CT2	NOX	10.4360
01001	Tenaska Alabama Partners LP	0008	002	01	55271	CT2	SO2	0.6860
01001	Tenaska Alabama Partners LP	0008	003	01	55271	CT3	NOX	11.0180
01001	Tenaska Alabama Partners LP	0008	003	01	55271	CT3	SO2	0.5670
01015	Calhoun Power Company I LLC Generating Station	0073	001	01	55409	CT1	NOX	19.5250
01015	Calhoun Power Company I LLC Generating Station	0073	001	01	55409	CT1	SO2	0.5460
01015	Calhoun Power Company I LLC Generating Station	0073	002	01	55409	CT2	NOX	20.0920
01015	Calhoun Power Company I LLC Generating Station	0073	002	01	55409	CT2	SO2	0.5270
01015	Calhoun Power Company I LLC Generating Station	0073	003	01	55409	CT3	NOX	22.8750
01015	Calhoun Power Company I LLC Generating Station	0073	003	01	55409	CT3	SO2	0.6000
01015	Calhoun Power Company I LLC Generating Station	0073	004	01	55409	CT4	NOX	21.9610
01033	TVA	0010	009	01	47	1	NOX	3,103.4850
01033	TVA	0010	009	01	47	1	SO2	5,786.8300
01033	TVA	0010	009	01	47	2	NOX	2,880.0630
01033	TVA	0010	009	01	47	2	SO2	5,339.8070
01033	TVA	0010	009	01	47	3	NOX	3,104.7600

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
01033	TVA	0010	009	01	47	3	SO2	5,799.6000
01033	TVA	0010	009	01	47	4	NOX	2,923.2670
01033	TVA	0010	009	01	47	4	SO2	5,496.5120
01039	PowerSouth Energy Cooperative Inc	0001	002	01	533	**4	NOX	18.5360
01039	PowerSouth Energy Cooperative Inc	0001	002	01	533	**4	SO2	0.2030
01039	PowerSouth Energy Cooperative Inc	0001	004	01	533	**V1	NOX	23.9720
01039	PowerSouth Energy Cooperative Inc	0001	004	01	533	**V1	SO2	1.1960
01039	PowerSouth Energy Cooperative Inc	0001	005	01	533	**V2	NOX	20.7010
01039	PowerSouth Energy Cooperative Inc	0001	005	01	533	**V2	SO2	0.9330
01055	Alabama Power Company	0002	001	01	7	1	NOX	1,212.7470
01055	Alabama Power Company	0002	001	01	7	1	SO2	5,556.2170
01063	Alabama Power Company	0001	001	01	10	1	NOX	2,965.2470
01063	Alabama Power Company	0001	001	01	10	1	SO2	16,379.7360
01063	Alabama Power Company	0001	001	01	10	2	NOX	3,148.4970
01063	Alabama Power Company	0001	001	01	10	2	SO2	14,267.7870
01063	Alabama Power Company	0001	002	01	10	CT2	NOX	28.1330
01063	Alabama Power Company	0001	002	01	10	CT2	SO2	0.5560
01063	Alabama Power Company	0001	003	01	10	CT3	NOX	21.3750
01063	Alabama Power Company	0001	004	01	10	CT4	NOX	21.4930
01063	Alabama Power Company	0001	005	01	10	CT5	NOX	20.3560
01063	Alabama Power Company	0001	006	01	10	CT6	NOX	24.8990
01063	Alabama Power Company	0001	007	01	10	CT7	NOX	22.2870
01063	Alabama Power Company	0001	007	01	10	CT7	SO2	0.4790
01063	Alabama Power Company	0001	008	01	10	CT8	NOX	14.7970
01063	Alabama Power Company	0001	009	01	10	CT9	NOX	14.0950
01063	Alabama Power Company	0001	010	01	10	CT10	NOX	16.9470
01071	TVA	0008	001	01	50	1	NOX	1,654.1840
01071	TVA	0008	001	01	50	1	SO2	3,549.1100
01071	TVA	0008	001	01	50	2	NOX	1,696.5000
01071	TVA	0008	001	01	50	2	SO2	3,670.0960
01071	TVA	0008	001	01	50	3	NOX	1,759.7660
01071	TVA	0008	001	01	50	3	SO2	3,757.5870
01071	TVA	0008	001	01	50	4	NOX	2,038.6580

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
01071	TVA	0008	001	01	50	4	SO2	4,357.2980
01071	TVA	0008	001	01	50	5	SO2	2,834.6960
01071	TVA	0008	001	01	50	6	NOX	1,823.3140
01071	TVA	0008	001	01	50	6	SO2	3,934.9880
01071	TVA	0008	002	01	50	7	NOX	3,694.2000
01071	TVA	0008	002	01	50	7	SO2	6,518.6660
01071	TVA	0008	003	01	50	8	NOX	3,646.9630
01071	TVA	0008	003	01	50	8	SO2	4,100.9450
01073	ALABAMA POWER COMPANY (MILLER POWER PLANT)	0107300011	101	1	6002	1	NOX	5,772.4190
01073	ALABAMA POWER COMPANY (MILLER POWER PLANT)	0107300011	101	1	6002	1	SO2	16,967.2890
01073	ALABAMA POWER COMPANY (MILLER POWER PLANT)	0107300011	102	1	6002	2	NOX	5,682.3080
01073	ALABAMA POWER COMPANY (MILLER POWER PLANT)	0107300011	102	1	6002	2	SO2	15,760.1930
01073	ALABAMA POWER COMPANY (MILLER POWER PLANT)	0107300011	103	1	6002	3	NOX	5,446.4410
01073	ALABAMA POWER COMPANY (MILLER POWER PLANT)	0107300011	103	1	6002	3	SO2	13,515.0930
01073	ALABAMA POWER COMPANY (MILLER POWER PLANT)	0107300011	104	1	6002	4	NOX	5,160.8730
01073	ALABAMA POWER COMPANY (MILLER POWER PLANT)	0107300011	104	1	6002	4	SO2	13,285.2740
01081	Southern Power Company	0036	001	01	7710	1A	NOX	36.0060
01081	Southern Power Company	0036	001	01	7710	1A	SO2	1.8460
01081	Southern Power Company	0036	002	01	7710	1B	NOX	34.5010
01081	Southern Power Company	0036	002	01	7710	1B	SO2	1.8220
01081	Southern Power Company	0036	003	01	7710	2A	NOX	40.4660
01081	Southern Power Company	0036	003	01	7710	2A	SO2	2.1160
01081	Southern Power Company	0036	004	01	7710	2B	NOX	37.2160
01081	Southern Power Company	0036	004	01	7710	2B	SO2	2.1160
01097	Alabama Power Company	1001	001	01	3	1	NOX	1,484.2650
01097	Alabama Power Company	1001	001	01	3	1	SO2	4,814.7100
01097	Alabama Power Company	1001	001	01	3	2	NOX	1,653.9850
01097	Alabama Power Company	1001	001	01	3	2	SO2	5,244.4200
01097	Alabama Power Company	1001	001	01	3	3	NOX	2,834.0110
01097	Alabama Power Company	1001	001	01	3	3	SO2	8,907.2170
01097	Alabama Power Company	1001	002	01	3	4	NOX	3,000.1140
01097	Alabama Power Company	1001	002	01	3	4	SO2	10,938.6620
01097	Alabama Power Company	1001	003	01	3	5	SO2	21,362.0720

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
01097	Alabama Power Company	1001	005	01	3	6A	NOX	37.8650
01097	Alabama Power Company	1001	005	01	3	6A	SO2	2.3090
01097	Alabama Power Company	1001	006	01	3	6B	NOX	39.4240
01097	Alabama Power Company	1001	006	01	3	6B	SO2	2.3110
01097	Alabama Power Company	1001	007	01	3	7A	NOX	33.9360
01097	Alabama Power Company	1001	007	01	3	7A	SO2	2.3460
01097	Alabama Power Company	1001	008	01	3	7B	NOX	33.4090
01097	Alabama Power Company	1001	008	01	3	7B	SO2	2.2580
01097	Alabama Power Company	8073	001	01	7721	CC1	NOX	38.4590
01097	Alabama Power Company	8073	001	01	7721	CC1	SO2	3.3560
01097	Mobile Energy LLC	8066	001	01	55241	COG01	NOX	8.6690
01103	Decatur Energy Center LLC	0079	001	01	55292	CTG-1	NOX	38.2340
01103	Decatur Energy Center LLC	0079	001	01	55292	CTG-1	SO2	2.1980
01103	Decatur Energy Center LLC	0079	002	01	55292	CTG-2	NOX	28.8910
01103	Decatur Energy Center LLC	0079	002	01	55292	CTG-2	SO2	1.8410
01103	Decatur Energy Center LLC	0079	003	01	55292	CTG-3	NOX	33.9620
01103	Decatur Energy Center LLC	0079	003	01	55292	CTG-3	SO2	2.0810
01103	Morgan Energy Center LLC	0080	001	01	55293	CT-1	NOX	45.6550
01103	Morgan Energy Center LLC	0080	001	01	55293	CT-1	SO2	3.6550
01103	Morgan Energy Center LLC	0080	002	01	55293	CT-2	SO2	1.6480
01103	Morgan Energy Center LLC	0080	003	01	55293	CT-3	NOX	28.5320
01103	Morgan Energy Center LLC	0080	003	01	55293	CT-3	SO2	1.6920
01103	Solutia Inc	0010	001	01	880041	Z006	NOX	259.4080
01103	Solutia Inc	0010	002	01	880041	X053	NOX	0.0210
01103	Solutia Inc	0010	003	01	880041	X015	NOX	458.0160
01117	Alabama Power Company	0005	001	01	26	1	NOX	3,271.5900
01117	Alabama Power Company	0005	001	01	26	1	SO2	20,341.7250
01117	Alabama Power Company	0005	001	01	26	2	NOX	3,397.0510
01117	Alabama Power Company	0005	001	01	26	2	SO2	20,957.7130
01117	Alabama Power Company	0005	002	01	26	4	NOX	3,098.0790
01117	Alabama Power Company	0005	002	01	26	4	SO2	17,818.2540
01117	Alabama Power Company	0005	003	01	26	5	NOX	8,138.9960
01117	Alabama Power Company	0005	003	01	26	5	SO2	64,663.2850

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
01127	Alabama Power Company	0001	003	01	8	7	NOX	1,445.3650
01127	Alabama Power Company	0001	003	01	8	7	SO2	8,930.9360
01127	Alabama Power Company	0001	004	01	8	9	SO2	10,310.7520
01129	Alabama Power Company	0018	001	01	7697	CC1	NOX	247.0860
01129	Alabama Power Company	0018	001	01	7697	CC1	SO2	2.5610
01129	PowerSouth Energy Cooperative Inc	0001	001	02	56	1	NOX	715.3815
01129	PowerSouth Energy Cooperative Inc	0001	001	02	56	1	SO2	1,836.0455
01129	PowerSouth Energy Cooperative Inc	0001	002	01	56	1	NOX	715.3815
01129	PowerSouth Energy Cooperative Inc	0001	002	01	56	1	SO2	1,836.0455
01129	PowerSouth Energy Cooperative Inc	0001	002	01	56	2	NOX	3,703.7150
01129	PowerSouth Energy Cooperative Inc	0001	002	01	56	2	SO2	4,845.3380
01129	PowerSouth Energy Cooperative Inc	0001	003	01	56	3	NOX	4,995.5220
01129	PowerSouth Energy Cooperative Inc	0001	003	01	56	3	SO2	7,735.5000
01129	PowerSouth Energy Cooperative Inc	0012	002	01	7063	**2	NOX	2.9850
01129	PowerSouth Energy Cooperative Inc	0012	002	01	7063	**2	SO2	0.0400
01129	PowerSouth Energy Cooperative Inc	0012	003	01	7063	**3	SO2	0.0240

1.9.8.2 Alabama – Jefferson County

No issues identified.

1.9.8.3 Florida

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
12001	CITY OF GAINESVILLE, GRU	0010006	3	1	663	B1	NOX	201.5961
12001	CITY OF GAINESVILLE, GRU	0010006	3	1	663	B1	SO2	0.6088
12001	CITY OF GAINESVILLE, GRU	0010006	3	2	663	B1	NOX	40.0779
12001	CITY OF GAINESVILLE, GRU	0010006	3	2	663	B1	SO2	110.6932
12001	CITY OF GAINESVILLE, GRU	0010006	5	3	663	B2	NOX	3,624.8500
12001	CITY OF GAINESVILLE, GRU	0010006	5	3	663	B2	SO2	7,837.0840
12001	CITY OF GAINESVILLE, GRU	0010006	6	1	663	CT3	NOX	9.1990
12001	CITY OF GAINESVILLE, GRU	0010006	6	1	663	CT3	SO2	0.1660
12001	FLORIDA POWER CORPORATION D/B/A PROGRESS	0010001	7	2	7345	1	NOX	109.7430
12001	FLORIDA POWER CORPORATION D/B/A PROGRESS	0010001	7	2	7345	1	SO2	1.0200
12001	GAINESVILLE REGIONAL UTILITIES	0010005	10	1	664	CC1	NOX	30.1590
12001	GAINESVILLE REGIONAL UTILITIES	0010005	10	1	664	CC1	SO2	0.6710

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
12005	GULF POWER COMPANY LANSING SMITH PLANT	0050014	1	1	643	1	NOX	2.9325
12005	GULF POWER COMPANY LANSING SMITH PLANT	0050014	1	1	643	1	SO2	6.7585
12005	GULF POWER COMPANY LANSING SMITH PLANT	0050014	1	1	643	2	NOX	2.0529
12005	GULF POWER COMPANY LANSING SMITH PLANT	0050014	1	1	643	2	SO2	6.0932
12005	GULF POWER COMPANY LANSING SMITH PLANT	0050014	1	2	643	1	NOX	2,768.1370
12005	GULF POWER COMPANY LANSING SMITH PLANT	0050014	1	2	643	1	SO2	6,379.5942
12005	GULF POWER COMPANY LANSING SMITH PLANT	0050014	1	2	643	2	NOX	2,967.4632
12005	GULF POWER COMPANY LANSING SMITH PLANT	0050014	1	2	643	2	SO2	8,807.7830
12005	GULF POWER COMPANY LANSING SMITH PLANT	0050014	1	3	643	1	NOX	0.1716
12005	GULF POWER COMPANY LANSING SMITH PLANT	0050014	1	3	643	1	SO2	0.3954
12005	GULF POWER COMPANY LANSING SMITH PLANT	0050014	1	3	643	2	NOX	0.0249
12005	GULF POWER COMPANY LANSING SMITH PLANT	0050014	1	3	643	2	SO2	0.0738
12005	GULF POWER COMPANY LANSING SMITH PLANT	0050014	4	1	643	4	NOX	148.2026
12005	GULF POWER COMPANY LANSING SMITH PLANT	0050014	4	1	643	4	SO2	0.8116
12005	GULF POWER COMPANY LANSING SMITH PLANT	0050014	4	2	643	4	NOX	4.4564
12005	GULF POWER COMPANY LANSING SMITH PLANT	0050014	4	2	643	4	SO2	0.0244
12005	GULF POWER COMPANY LANSING SMITH PLANT	0050014	5	1	643	5	NOX	144.8396
12005	GULF POWER COMPANY LANSING SMITH PLANT	0050014	5	1	643	5	SO2	0.7500
12005	GULF POWER COMPANY LANSING SMITH PLANT	0050014	5	2	643	5	NOX	5.0144
12005	GULF POWER COMPANY LANSING SMITH PLANT	0050014	5	2	643	5	SO2	0.0260
12009	FLORIDA POWER & LIGHT (PCC)	0090006	1	1	609	PCC1	NOX	1,356.2836
12009	FLORIDA POWER & LIGHT (PCC)	0090006	1	1	609	PCC1	SO2	1.9658
12009	FLORIDA POWER & LIGHT (PCC)	0090006	1	2	609	PCC1	NOX	829.8580
12009	FLORIDA POWER & LIGHT (PCC)	0090006	1	2	609	PCC1	SO2	1,894.7419
12009	FLORIDA POWER & LIGHT (PCC)	0090006	1	6	609	PCC1	NOX	0.0114
12009	FLORIDA POWER & LIGHT (PCC)	0090006	1	6	609	PCC1	SO2	0.0002
12009	FLORIDA POWER & LIGHT (PCC)	0090006	2	1	609	PCC2	NOX	1,665.6095
12009	FLORIDA POWER & LIGHT (PCC)	0090006	2	1	609	PCC2	SO2	2.2209
12009	FLORIDA POWER & LIGHT (PCC)	0090006	2	2	609	PCC2	NOX	1,141.2840
12009	FLORIDA POWER & LIGHT (PCC)	0090006	2	2	609	PCC2	SO2	2,396.8088
12009	FLORIDA POWER & LIGHT (PCC)	0090006	2	6	609	PCC2	NOX	0.0124
12009	FLORIDA POWER & LIGHT (PCC)	0090006	2	6	609	PCC2	SO2	0.0003
12009	OLEANDER POWER PROJECT, LP	0090180	1	1	55286	O-1	NOX	0.0175

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
12009	OLEANDER POWER PROJECT, LP	0090180	1	1	55286	O-1	SO2	0.0332
12009	OLEANDER POWER PROJECT, LP	0090180	1	2	55286	O-1	NOX	16.8445
12009	OLEANDER POWER PROJECT, LP	0090180	1	2	55286	O-1	SO2	0.1268
12009	OLEANDER POWER PROJECT, LP	0090180	2	1	55286	O-2	NOX	0.5540
12009	OLEANDER POWER PROJECT, LP	0090180	2	1	55286	O-2	SO2	0.5690
12009	OLEANDER POWER PROJECT, LP	0090180	2	2	55286	O-2	NOX	27.5820
12009	OLEANDER POWER PROJECT, LP	0090180	2	2	55286	O-2	SO2	0.5610
12009	OLEANDER POWER PROJECT, LP	0090180	3	1	55286	O-3	NOX	0.0603
12009	OLEANDER POWER PROJECT, LP	0090180	3	1	55286	O-3	SO2	0.1001
12009	OLEANDER POWER PROJECT, LP	0090180	3	2	55286	O-3	NOX	24.5037
12009	OLEANDER POWER PROJECT, LP	0090180	3	2	55286	O-3	SO2	0.2419
12009	OLEANDER POWER PROJECT, LP	0090180	4	1	55286	O-4	NOX	0.5916
12009	OLEANDER POWER PROJECT, LP	0090180	4	1	55286	O-4	SO2	0.4889
12009	OLEANDER POWER PROJECT, LP	0090180	4	2	55286	O-4	NOX	26.5854
12009	OLEANDER POWER PROJECT, LP	0090180	4	2	55286	O-4	SO2	0.4351
12009	ORLANDO UTLITIES COMMISSION	0090008	5	2	683	**C	NOX	4.5360
12009	ORLANDO UTLITIES COMMISSION	0090008	5	2	683	**C	SO2	0.0370
12009	ORLANDO UTLITIES COMMISSION	0090008	6	2	683	**D	NOX	6.6340
12009	ORLANDO UTLITIES COMMISSION	0090008	6	2	683	**D	SO2	0.0690
12009	RELIANT ENERGY FLORIDA, L.L.C.	0090196	1	1	55318	1	NOX	29.9399
12009	RELIANT ENERGY FLORIDA, L.L.C.	0090196	1	1	55318	1	SO2	0.1056
12009	RELIANT ENERGY FLORIDA, L.L.C.	0090196	1	1	55318	2	NOX	39.5516
12009	RELIANT ENERGY FLORIDA, L.L.C.	0090196	1	1	55318	2	SO2	0.1459
12009	RELIANT ENERGY FLORIDA, L.L.C.	0090196	1	2	55318	1	NOX	19.8611
12009	RELIANT ENERGY FLORIDA, L.L.C.	0090196	1	2	55318	1	SO2	80.7028
12009	RELIANT ENERGY FLORIDA, L.L.C.	0090196	1	2	55318	2	NOX	68.2264
12009	RELIANT ENERGY FLORIDA, L.L.C.	0090196	1	2	55318	2	SO2	342.2539
12009	RELIANT ENERGY FLORIDA, L.L.C.	0090196	1	3	55318	1	SO2	0.0755
12009	RELIANT ENERGY FLORIDA, L.L.C.	0090196	1	3	55318	2	SO2	0.0732
12009	RELIANT ENERGY FLORIDA, L.L.C.	0090196	1	4	55318	2	SO2	0.0810
12009	RELIANT ENERGY FLORIDA, L.L.C.	0090196	3	1	55318	3	NOX	77.0521
12009	RELIANT ENERGY FLORIDA, L.L.C.	0090196	3	1	55318	3	SO2	0.2810
12009	RELIANT ENERGY FLORIDA, L.L.C.	0090196	3	2	55318	3	NOX	98.3389

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
12009	RELIANT ENERGY FLORIDA, L.L.C.	0090196	3	2	55318	3	SO2	489.3970
12011	FLORIDA POWER & LIGHT (PFL)	0110037	35	1	613	4GT1	NOX	0.0941
12011	FLORIDA POWER & LIGHT (PFL)	0110037	35	1	613	4GT1	SO2	0.1396
12011	FLORIDA POWER & LIGHT (PFL)	0110037	35	2	613	4GT1	NOX	448.4939
12011	FLORIDA POWER & LIGHT (PFL)	0110037	35	2	613	4GT1	SO2	2.4824
12011	FLORIDA POWER & LIGHT (PFL)	0110037	36	1	613	4GT2	NOX	500.2384
12011	FLORIDA POWER & LIGHT (PFL)	0110037	36	1	613	4GT2	SO2	2.4540
12011	FLORIDA POWER & LIGHT (PFL)	0110037	36	2	613	4GT2	NOX	0.1056
12011	FLORIDA POWER & LIGHT (PFL)	0110037	36	2	613	4GT2	SO2	0.1380
12011	FLORIDA POWER & LIGHT (PFL)	0110037	37	2	613	5GT1	NOX	678.0570
12011	FLORIDA POWER & LIGHT (PFL)	0110037	37	2	613	5GT1	SO2	3.3960
12011	FLORIDA POWER & LIGHT (PFL)	0110037	38	1	613	5GT2	NOX	686.0540
12011	FLORIDA POWER & LIGHT (PFL)	0110037	38	1	613	5GT2	SO2	3.4180
12011	FLORIDA POWER & LIGHT (PPE)	0110036	1	1	617	PPE1	NOX	43.6133
12011	FLORIDA POWER & LIGHT (PPE)	0110036	1	1	617	PPE1	SO2	0.1922
12011	FLORIDA POWER & LIGHT (PPE)	0110036	1	2	617	PPE1	NOX	387.0327
12011	FLORIDA POWER & LIGHT (PPE)	0110036	1	2	617	PPE1	SO2	1,484.1264
12011	FLORIDA POWER & LIGHT (PPE)	0110036	1	7	617	PPE1	NOX	0.0121
12011	FLORIDA POWER & LIGHT (PPE)	0110036	1	7	617	PPE1	SO2	0.0004
12011	FLORIDA POWER & LIGHT (PPE)	0110036	2	1	617	PPE2	NOX	30.2150
12011	FLORIDA POWER & LIGHT (PPE)	0110036	2	1	617	PPE2	SO2	0.1367
12011	FLORIDA POWER & LIGHT (PPE)	0110036	2	2	617	PPE2	NOX	303.4110
12011	FLORIDA POWER & LIGHT (PPE)	0110036	2	2	617	PPE2	SO2	1,194.4520
12011	FLORIDA POWER & LIGHT (PPE)	0110036	2	6	617	PPE2	NOX	0.0100
12011	FLORIDA POWER & LIGHT (PPE)	0110036	2	6	617	PPE2	SO2	0.0003
12011	FLORIDA POWER & LIGHT (PPE)	0110036	3	1	617	PPE3	NOX	604.1253
12011	FLORIDA POWER & LIGHT (PPE)	0110036	3	1	617	PPE3	SO2	1.4920
12011	FLORIDA POWER & LIGHT (PPE)	0110036	3	2	617	PPE3	NOX	1,478.7648
12011	FLORIDA POWER & LIGHT (PPE)	0110036	3	2	617	PPE3	SO2	3,177.4513
12011	FLORIDA POWER & LIGHT (PPE)	0110036	3	6	617	PPE3	NOX	0.0409
12011	FLORIDA POWER & LIGHT (PPE)	0110036	3	6	617	PPE3	SO2	0.0007
12011	FLORIDA POWER & LIGHT (PPE)	0110036	4	1	617	PPE4	NOX	540.3604
12011	FLORIDA POWER & LIGHT (PPE)	0110036	4	1	617	PPE4	SO2	1.3622

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
12011	FLORIDA POWER & LIGHT (PPE)	0110036	4	2	617	PPE4	NOX	2,000.3266
12011	FLORIDA POWER & LIGHT (PPE)	0110036	4	2	617	PPE4	SO2	4,387.4568
12011	FLORIDA POWER & LIGHT (PPE)	0110036	4	6	617	PPE4	NOX	0.0500
12011	FLORIDA POWER & LIGHT (PPE)	0110036	4	6	617	PPE4	SO2	0.0009
12017	FLORIDA POWER CORPORATION D/B/A PROGRESS	0170004	1	3	628	1	NOX	4,054.8050
12017	FLORIDA POWER CORPORATION D/B/A PROGRESS	0170004	1	3	628	1	SO2	16,738.6930
12017	FLORIDA POWER CORPORATION D/B/A PROGRESS	0170004	2	4	628	2	NOX	4,910.1180
12017	FLORIDA POWER CORPORATION D/B/A PROGRESS	0170004	2	4	628	2	SO2	19,166.4100
12017	FLORIDA POWER CORPORATION D/B/A PROGRESS	0170004	3	2	628	5	NOX	12,553.8190
12017	FLORIDA POWER CORPORATION D/B/A PROGRESS	0170004	3	2	628	5	SO2	26,650.9200
12017	FLORIDA POWER CORPORATION D/B/A PROGRESS	0170004	4	2	628	4	NOX	14,430.8490
12017	FLORIDA POWER CORPORATION D/B/A PROGRESS	0170004	4	2	628	4	SO2	29,763.6330
12027	DESOTO COUNTY GENERATING COMPANY, LLC	0270016	1	1	55422	CT1	NOX	0.1001
12027	DESOTO COUNTY GENERATING COMPANY, LLC	0270016	1	1	55422	CT1	SO2	0.0154
12027	DESOTO COUNTY GENERATING COMPANY, LLC	0270016	1	2	55422	CT1	NOX	2.1379
12027	DESOTO COUNTY GENERATING COMPANY, LLC	0270016	1	2	55422	CT1	SO2	0.0376
12027	DESOTO COUNTY GENERATING COMPANY, LLC	0270016	2	1	55422	CT2	NOX	1.2561
12027	DESOTO COUNTY GENERATING COMPANY, LLC	0270016	2	1	55422	CT2	SO2	0.3142
12027	DESOTO COUNTY GENERATING COMPANY, LLC	0270016	2	2	55422	CT2	NOX	2.5869
12027	DESOTO COUNTY GENERATING COMPANY, LLC	0270016	2	2	55422	CT2	SO2	0.1898
12031	JEA	0310045	16	1	207	1	NOX	27.2268
12031	JEA	0310045	16	1	207	1	SO2	0.8899
12031	JEA	0310045	16	2	207	1	NOX	32.2533
12031	JEA	0310045	16	2	207	1	SO2	128.5141
12031	JEA	0310045	16	3	207	1	NOX	10,257.3720
12031	JEA	0310045	16	3	207	1	SO2	6,506.1930
12031	JEA	0310045	17	1	207	2	NOX	29.4750
12031	JEA	0310045	17	1	207	2	SO2	0.4996
12031	JEA	0310045	17	2	207	2	NOX	1,824.8944
12031	JEA	0310045	17	2	207	2	SO2	3,770.1148
12031	JEA	0310045	17	3	207	2	NOX	9,860.0135
12031	JEA	0310045	17	3	207	2	SO2	3,245.0166
12031	JEA	0310045	26	1	667	2A	NOX	103.3139

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
12031	JEA	0310045	26	1	667	2A	SO2	69.8171
12031	JEA	0310045	26	2	667	2A	NOX	611.5903
12031	JEA	0310045	26	2	667	2A	SO2	1,338.5959
12031	JEA	0310045	26	3	667	2A	NOX	3.7968
12031	JEA	0310045	27	1	667	1A	NOX	108.6988
12031	JEA	0310045	27	1	667	1A	SO2	70.4960
12031	JEA	0310045	27	2	667	1A	NOX	614.0932
12031	JEA	0310045	27	2	667	1A	SO2	1,440.1230
12031	JEA	0310045	27	3	667	1A	NOX	1.8000
12031	JEA	0310045	3	1	667	3	NOX	561.3825
12031	JEA	0310045	3	2	667	3	NOX	186.0368
12031	JEA	0310045	3	2	667	3	SO2	1,281.1080
12031	JEA	0310045	3	5	667	3	NOX	0.6737
12031	JEA	0310047	15	1	666	7	NOX	11.0828
12031	JEA	0310047	15	2	666	7	NOX	0.0972
12031	JEA	0310047	15	2	666	7	SO2	0.2400
12031	JEA	0310485	1	1	7846	1	NOX	9.4930
12031	JEA	0310485	1	1	7846	1	SO2	0.1690
12031	JEA	0310485	2	2	7846	2	NOX	36.9110
12031	JEA	0310485	2	2	7846	2	SO2	1.5480
12031	JEA	0310485	3	2	7846	3	NOX	41.8030
12031	JEA	0310485	3	2	7846	3	SO2	1.7860
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	1	641	6	NOX	9.6838
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	1	641	6	SO2	39.7881
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	1	641	7	NOX	1.5520
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	1	641	7	SO2	22.0708
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	2	641	4	NOX	0.4497
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	2	641	4	SO2	1.5946
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	2	641	5	NOX	0.3069
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	2	641	5	SO2	1.1673
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	2	641	6	NOX	0.0402
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	2	641	6	SO2	0.1651
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	2	641	7	NOX	0.1938

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	2	641	7	SO2	2.7560
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	3	641	4	NOX	1,058.5445
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	3	641	4	SO2	3,753.2047
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	3	641	5	NOX	845.8077
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	3	641	5	SO2	3,216.8587
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	3	641	6	NOX	2,942.8150
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	3	641	6	SO2	12,951.3478
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	3	641	7	NOX	1,488.3402
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	3	641	7	SO2	21,165.0542
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	4	641	4	NOX	0.6706
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	4	641	4	SO2	2.3779
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	4	641	5	NOX	6.4234
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	4	641	5	SO2	24.4300
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	5	641	4	NOX	0.0891
12033	GULF POWER COMPANY CRIST PLANT	0330045	1	5	641	4	SO2	0.3158
12049	HARDEE POWER PARTNERS LIMITED	0490015	5	1	50949	CT2B	NOX	2.4402
12049	HARDEE POWER PARTNERS LIMITED	0490015	5	2	50949	CT2B	NOX	0.2188
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	1	1	7380	1	NOX	30.6050
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	1	1	7380	1	SO2	0.5580
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	1	2	7380	1	NOX	0.0620
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	1	2	7380	1	SO2	0.0100
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	2	1	7380	2	NOX	33.6069
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	2	1	7380	2	SO2	0.6530
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	2	2	7380	2	NOX	0.0801
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	2	2	7380	2	SO2	0.0100
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	5	1	7380	4A	NOX	11.6120
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	5	1	7380	4A	SO2	0.1400
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	5	2	7380	4B	NOX	11.8280
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	5	2	7380	4B	SO2	0.1310
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	6	1	7380	5A	NOX	10.2970
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	6	1	7380	5A	SO2	0.1290
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	6	2	7380	5B	NOX	9.8380
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	6	2	7380	5B	SO2	0.1350

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	7	1	7380	6A	NOX	11.3420
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	7	1	7380	6A	SO2	0.1500
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	7	2	7380	6B	NOX	10.7930
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	7	2	7380	6B	SO2	0.1460
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	8	1	7380	7A	NOX	12.8120
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	8	1	7380	7A	SO2	0.1720
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	8	2	7380	7B	NOX	12.9400
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	8	2	7380	7B	SO2	0.1710
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	9	1	7380	8A	NOX	10.7810
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	9	1	7380	8A	SO2	0.1230
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	9	2	7380	8B	NOX	11.0320
12049	SEMINOLE ELECTRIC COOPERATIVE, INC.	0490340	9	2	7380	8B	SO2	0.1330
12049	VANDOLAH POWER COMPANY, LLC	0490043	1	1	55415	GT101	NOX	0.6718
12049	VANDOLAH POWER COMPANY, LLC	0490043	1	1	55415	GT101	SO2	0.4480
12049	VANDOLAH POWER COMPANY, LLC	0490043	1	2	55415	GT101	NOX	13.5072
12049	VANDOLAH POWER COMPANY, LLC	0490043	2	1	55415	GT201	NOX	2.0054
12049	VANDOLAH POWER COMPANY, LLC	0490043	2	1	55415	GT201	SO2	1.2070
12049	VANDOLAH POWER COMPANY, LLC	0490043	2	2	55415	GT201	NOX	8.5146
12049	VANDOLAH POWER COMPANY, LLC	0490043	3	1	55415	GT301	NOX	2.2963
12049	VANDOLAH POWER COMPANY, LLC	0490043	3	1	55415	GT301	SO2	1.7200
12049	VANDOLAH POWER COMPANY, LLC	0490043	3	2	55415	GT301	NOX	6.9597
12049	VANDOLAH POWER COMPANY, LLC	0490043	4	1	55415	GT401	NOX	0.4619
12049	VANDOLAH POWER COMPANY, LLC	0490043	4	1	55415	GT401	SO2	0.2970
12049	VANDOLAH POWER COMPANY, LLC	0490043	4	2	55415	GT401	NOX	5.5601
12057	TAMPA ELECTRIC COMPANY	0570039	1	2	645	BB01	NOX	10,043.6080
12057	TAMPA ELECTRIC COMPANY	0570039	1	2	645	BB01	SO2	2,999.2050
12057	TAMPA ELECTRIC COMPANY	0570039	2	2	645	BB02	NOX	10,050.9390
12057	TAMPA ELECTRIC COMPANY	0570039	2	2	645	BB02	SO2	2,716.6400
12057	TAMPA ELECTRIC COMPANY	0570039	3	2	645	BB03	NOX	3,838.1680
12057	TAMPA ELECTRIC COMPANY	0570039	3	2	645	BB03	SO2	1,762.5550
12057	TAMPA ELECTRIC COMPANY	0570039	4	2	645	BB04	NOX	1,192.4140
12057	TAMPA ELECTRIC COMPANY	0570039	4	2	645	BB04	SO2	2,396.0610
12057	TAMPA ELECTRIC COMPANY	0570040	20	1	7873	CT1A	NOX	52.8910

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
12057	TAMPA ELECTRIC COMPANY	0570040	20	1	7873	CT1A	SO2	2.2030
12057	TAMPA ELECTRIC COMPANY	0570040	21	1	7873	CT1B	NOX	51.2930
12057	TAMPA ELECTRIC COMPANY	0570040	21	1	7873	CT1B	SO2	2.2480
12057	TAMPA ELECTRIC COMPANY	0570040	22	1	7873	CT1C	NOX	44.7720
12057	TAMPA ELECTRIC COMPANY	0570040	22	1	7873	CT1C	SO2	1.8620
12057	TAMPA ELECTRIC COMPANY	0570040	23	1	7873	CT2A	NOX	60.5820
12057	TAMPA ELECTRIC COMPANY	0570040	23	1	7873	CT2A	SO2	2.6730
12057	TAMPA ELECTRIC COMPANY	0570040	24	1	7873	CT2B	NOX	56.3550
12057	TAMPA ELECTRIC COMPANY	0570040	24	1	7873	CT2B	SO2	2.6530
12057	TAMPA ELECTRIC COMPANY	0570040	25	1	7873	CT2C	NOX	59.9200
12057	TAMPA ELECTRIC COMPANY	0570040	25	1	7873	CT2C	SO2	2.6730
12057	TAMPA ELECTRIC COMPANY	0570040	26	1	7873	CT2D	NOX	614.2340
12057	TAMPA ELECTRIC COMPANY	0570040	26	1	7873	CT2D	SO2	2.5700
12061	CITY OF VERO BEACH	0610029	3	1	693	3	NOX	3.7910
12061	CITY OF VERO BEACH	0610029	3	1	693	3	SO2	0.0240
12061	CITY OF VERO BEACH	0610029	4	1	693	4	NOX	20.6210
12061	CITY OF VERO BEACH	0610029	4	1	693	4	SO2	0.0890
12061	CITY OF VERO BEACH	0610029	5	1	693	**5	NOX	7.6581
12061	CITY OF VERO BEACH	0610029	5	1	693	**5	SO2	0.1430
12061	CITY OF VERO BEACH	0610029	5	2	693	**5	NOX	0.0019
12061	CITY OF VERO BEACH	0610029	5	2	693	**5	SO2	0.0580
12063	GULF POWER COMPANY SCHOLZ PLANT	0630014	1	1	642	1	NOX	0.3610
12063	GULF POWER COMPANY SCHOLZ PLANT	0630014	1	1	642	1	SO2	1.0773
12063	GULF POWER COMPANY SCHOLZ PLANT	0630014	1	1	642	2	NOX	0.4238
12063	GULF POWER COMPANY SCHOLZ PLANT	0630014	1	1	642	2	SO2	1.2599
12063	GULF POWER COMPANY SCHOLZ PLANT	0630014	1	2	642	1	NOX	857.9967
12063	GULF POWER COMPANY SCHOLZ PLANT	0630014	1	2	642	1	SO2	2,560.7675
12063	GULF POWER COMPANY SCHOLZ PLANT	0630014	1	2	642	2	NOX	813.8632
12063	GULF POWER COMPANY SCHOLZ PLANT	0630014	1	2	642	2	SO2	2,419.7961
12063	GULF POWER COMPANY SCHOLZ PLANT	0630014	1	3	642	1	NOX	0.0114
12063	GULF POWER COMPANY SCHOLZ PLANT	0630014	1	3	642	1	SO2	0.0412
12071	FLORIDA POWER & LIGHT (PFM)	0710002	18	1	612	FMCT2A	NOX	151.4830
12071	FLORIDA POWER & LIGHT (PFM)	0710002	18	1	612	FMCT2A	SO2	3.3410

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
12071	FLORIDA POWER & LIGHT (PFM)	0710002	19	1	612	FMCT2B	NOX	146.2580
12071	FLORIDA POWER & LIGHT (PFM)	0710002	19	1	612	FMCT2B	SO2	3.1830
12071	FLORIDA POWER & LIGHT (PFM)	0710002	20	1	612	FMCT2C	NOX	160.9010
12071	FLORIDA POWER & LIGHT (PFM)	0710002	20	1	612	FMCT2C	SO2	3.4530
12071	FLORIDA POWER & LIGHT (PFM)	0710002	21	1	612	FMCT2D	NOX	158.2890
12071	FLORIDA POWER & LIGHT (PFM)	0710002	21	1	612	FMCT2D	SO2	3.3010
12071	FLORIDA POWER & LIGHT (PFM)	0710002	22	1	612	FMCT2E	NOX	157.2560
12071	FLORIDA POWER & LIGHT (PFM)	0710002	22	1	612	FMCT2E	SO2	3.4000
12071	FLORIDA POWER & LIGHT (PFM)	0710002	23	1	612	FMCT2F	NOX	151.7860
12071	FLORIDA POWER & LIGHT (PFM)	0710002	23	1	612	FMCT2F	SO2	3.2370
12071	FLORIDA POWER & LIGHT (PFM)	0710002	27	1	612	PFM3A	NOX	31.6926
12071	FLORIDA POWER & LIGHT (PFM)	0710002	27	1	612	PFM3A	SO2	0.5353
12071	FLORIDA POWER & LIGHT (PFM)	0710002	27	2	612	PFM3A	NOX	3.0434
12071	FLORIDA POWER & LIGHT (PFM)	0710002	27	2	612	PFM3A	SO2	0.6607
12071	FLORIDA POWER & LIGHT (PFM)	0710002	28	1	612	PFM3B	NOX	2.3617
12071	FLORIDA POWER & LIGHT (PFM)	0710002	28	1	612	PFM3B	SO2	0.3669
12071	FLORIDA POWER & LIGHT (PFM)	0710002	28	2	612	PFM3B	NOX	33.6703
12071	FLORIDA POWER & LIGHT (PFM)	0710002	28	2	612	PFM3B	SO2	0.4951
12073	CITY OF TALLAHASSEE	0730003	1	1	688	1	NOX	306.7070
12073	CITY OF TALLAHASSEE	0730003	1	1	688	1	SO2	0.8300
12073	CITY OF TALLAHASSEE	0730003	31	1	688	HC3	NOX	0.0224
12073	CITY OF TALLAHASSEE	0730003	31	1	688	HC3	SO2	1.3466
12073	CITY OF TALLAHASSEE	0730003	31	2	688	HC3	NOX	4.2346
12073	CITY OF TALLAHASSEE	0730003	31	2	688	HC3	SO2	0.1924
12073	CITY OF TALLAHASSEE	0730003	32	1	688	HC4	NOX	0.0145
12073	CITY OF TALLAHASSEE	0730003	32	1	688	HC4	SO2	0.8551
12073	CITY OF TALLAHASSEE	0730003	32	2	688	HC4	NOX	4.3165
12073	CITY OF TALLAHASSEE	0730003	32	2	688	HC4	SO2	0.1069
12073	CITY OF TALLAHASSEE	0730003	4	1	688	2	NOX	393.0868
12073	CITY OF TALLAHASSEE	0730003	4	1	688	2	SO2	1.3999
12073	CITY OF TALLAHASSEE	0730003	4	2	688	2	NOX	90.3912
12073	CITY OF TALLAHASSEE	0730003	4	2	688	2	SO2	492.8791
12081	FLORIDA POWER & LIGHT (PMT)	0810010	1	2	6042	PMT1	NOX	1,021.5074

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
12081	FLORIDA POWER & LIGHT (PMT)	0810010	1	2	6042	PMT1	SO2	6,212.9655
12081	FLORIDA POWER & LIGHT (PMT)	0810010	1	4	6042	PMT1	NOX	0.0201
12081	FLORIDA POWER & LIGHT (PMT)	0810010	1	4	6042	PMT1	SO2	0.0010
12081	FLORIDA POWER & LIGHT (PMT)	0810010	1	7	6042	PMT1	NOX	269.4045
12081	FLORIDA POWER & LIGHT (PMT)	0810010	1	7	6042	PMT1	SO2	1.8445
12081	FLORIDA POWER & LIGHT (PMT)	0810010	2	2	6042	PMT2	NOX	1,147.3614
12081	FLORIDA POWER & LIGHT (PMT)	0810010	2	2	6042	PMT2	SO2	5,582.5771
12081	FLORIDA POWER & LIGHT (PMT)	0810010	2	3	6042	PMT2	NOX	0.0230
12081	FLORIDA POWER & LIGHT (PMT)	0810010	2	3	6042	PMT2	SO2	0.0009
12081	FLORIDA POWER & LIGHT (PMT)	0810010	2	6	6042	PMT2	NOX	303.9836
12081	FLORIDA POWER & LIGHT (PMT)	0810010	2	6	6042	PMT2	SO2	1.6649
12081	FLORIDA POWER & LIGHT (PMT)	0810010	5	1	6042	MTCT3A	NOX	51.5720
12081	FLORIDA POWER & LIGHT (PMT)	0810010	5	1	6042	MTCT3A	SO2	3.5840
12081	FLORIDA POWER & LIGHT (PMT)	0810010	6	1	6042	MTCT3B	NOX	57.0140
12081	FLORIDA POWER & LIGHT (PMT)	0810010	6	1	6042	MTCT3B	SO2	3.6610
12081	FLORIDA POWER & LIGHT (PMT)	0810010	7	1	6042	MTCT3C	NOX	51.8260
12081	FLORIDA POWER & LIGHT (PMT)	0810010	7	1	6042	MTCT3C	SO2	3.5120
12081	FLORIDA POWER & LIGHT (PMT)	0810010	8	1	6042	MTCT3D	NOX	58.8120
12081	FLORIDA POWER & LIGHT (PMT)	0810010	8	1	6042	MTCT3D	SO2	3.7950
12085	FLORIDA POWER & LIGHT (PMR)	0850001	1	1	6043	PMR1	NOX	1,028.9148
12085	FLORIDA POWER & LIGHT (PMR)	0850001	1	1	6043	PMR1	SO2	3.5861
12085	FLORIDA POWER & LIGHT (PMR)	0850001	1	3	6043	PMR1	NOX	875.3019
12085	FLORIDA POWER & LIGHT (PMR)	0850001	1	3	6043	PMR1	SO2	4,960.2783
12085	FLORIDA POWER & LIGHT (PMR)	0850001	1	6	6043	PMR1	NOX	0.0193
12085	FLORIDA POWER & LIGHT (PMR)	0850001	1	6	6043	PMR1	SO2	0.0005
12085	FLORIDA POWER & LIGHT (PMR)	0850001	11	1	6043	PMR8A	NOX	49.8908
12085	FLORIDA POWER & LIGHT (PMR)	0850001	11	1	6043	PMR8A	SO2	3.4633
12085	FLORIDA POWER & LIGHT (PMR)	0850001	11	2	6043	PMR8A	NOX	0.0372
12085	FLORIDA POWER & LIGHT (PMR)	0850001	11	2	6043	PMR8A	SO2	0.0007
12085	FLORIDA POWER & LIGHT (PMR)	0850001	12	1	6043	PMR8B	NOX	53.9629
12085	FLORIDA POWER & LIGHT (PMR)	0850001	12	1	6043	PMR8B	SO2	3.9587
12085	FLORIDA POWER & LIGHT (PMR)	0850001	12	2	6043	PMR8B	NOX	0.1081
12085	FLORIDA POWER & LIGHT (PMR)	0850001	12	2	6043	PMR8B	SO2	0.0023

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12085	FLORIDA POWER & LIGHT (PMR)	0850001	17	1	6043	PMR8C	NOX	54.4784
12085	FLORIDA POWER & LIGHT (PMR)	0850001	17	1	6043	PMR8C	SO2	3.9147
12085	FLORIDA POWER & LIGHT (PMR)	0850001	17	2	6043	PMR8C	NOX	0.7426
12085	FLORIDA POWER & LIGHT (PMR)	0850001	17	2	6043	PMR8C	SO2	0.0133
12085	FLORIDA POWER & LIGHT (PMR)	0850001	18	1	6043	PMR8D	NOX	48.8129
12085	FLORIDA POWER & LIGHT (PMR)	0850001	18	1	6043	PMR8D	SO2	3.9010
12085	FLORIDA POWER & LIGHT (PMR)	0850001	18	2	6043	PMR8D	NOX	1.1421
12085	FLORIDA POWER & LIGHT (PMR)	0850001	18	2	6043	PMR8D	SO2	0.0190
12085	FLORIDA POWER & LIGHT (PMR)	0850001	2	1	6043	PMR2	NOX	1,007.4023
12085	FLORIDA POWER & LIGHT (PMR)	0850001	2	1	6043	PMR2	SO2	3.2387
12085	FLORIDA POWER & LIGHT (PMR)	0850001	2	3	6043	PMR2	NOX	1,065.3281
12085	FLORIDA POWER & LIGHT (PMR)	0850001	2	3	6043	PMR2	SO2	5,568.7987
12085	FLORIDA POWER & LIGHT (PMR)	0850001	2	6	6043	PMR2	NOX	0.0196
12085	FLORIDA POWER & LIGHT (PMR)	0850001	2	6	6043	PMR2	SO2	0.0006
12085	FLORIDA POWER & LIGHT (PMR)	0850001	3	2	6043	HRSG3A	NOX	191.3780
12085	FLORIDA POWER & LIGHT (PMR)	0850001	3	2	6043	HRSG3A	SO2	3.4280
12085	FLORIDA POWER & LIGHT (PMR)	0850001	4	1	6043	HRSG3B	NOX	231.6170
12085	FLORIDA POWER & LIGHT (PMR)	0850001	4	1	6043	HRSG3B	SO2	3.4290
12085	FLORIDA POWER & LIGHT (PMR)	0850001	5	2	6043	HRSG4A	NOX	246.1510
12085	FLORIDA POWER & LIGHT (PMR)	0850001	5	2	6043	HRSG4A	SO2	3.4430
12085	FLORIDA POWER & LIGHT (PMR)	0850001	6	1	6043	HRSG4B	NOX	183.8770
12085	FLORIDA POWER & LIGHT (PMR)	0850001	6	1	6043	HRSG4B	SO2	3.2690
12086	FLORIDA POWER & LIGHT (PCU)	0250001	3	2	610	PCU5	NOX	12.2970
12086	FLORIDA POWER & LIGHT (PCU)	0250001	3	2	610	PCU5	SO2	0.0720
12086	FLORIDA POWER & LIGHT (PCU)	0250001	4	2	610	PCU6	NOX	63.7300
12086	FLORIDA POWER & LIGHT (PCU)	0250001	4	2	610	PCU6	SO2	0.3810
12086	FLORIDA POWER & LIGHT (PTF)	0250003	1	1	621	PTP1	NOX	141.5211
12086	FLORIDA POWER & LIGHT (PTF)	0250003	1	1	621	PTP1	SO2	0.5050
12086	FLORIDA POWER & LIGHT (PTF)	0250003	1	2	621	PTP1	NOX	1,330.6138
12086	FLORIDA POWER & LIGHT (PTF)	0250003	1	2	621	PTP1	SO2	4,218.4073
12086	FLORIDA POWER & LIGHT (PTF)	0250003	1	5	621	PTP1	NOX	0.0221
12086	FLORIDA POWER & LIGHT (PTF)	0250003	1	5	621	PTP1	SO2	0.0006
12086	FLORIDA POWER & LIGHT (PTF)	0250003	10	1	621	TPCT5B	NOX	35.7690

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
12086	FLORIDA POWER & LIGHT (PTF)	0250003	10	1	621	TPCT5B	SO2	3.1969
12086	FLORIDA POWER & LIGHT (PTF)	0250003	10	2	621	TPCT5B	NOX	2.0180
12086	FLORIDA POWER & LIGHT (PTF)	0250003	10	2	621	TPCT5B	SO2	0.0171
12086	FLORIDA POWER & LIGHT (PTF)	0250003	11	1	621	TPCT5C	NOX	33.7770
12086	FLORIDA POWER & LIGHT (PTF)	0250003	11	1	621	TPCT5C	SO2	3.1308
12086	FLORIDA POWER & LIGHT (PTF)	0250003	11	2	621	TPCT5C	NOX	1.5910
12086	FLORIDA POWER & LIGHT (PTF)	0250003	11	2	621	TPCT5C	SO2	0.0132
12086	FLORIDA POWER & LIGHT (PTF)	0250003	12	1	621	TPCT5D	NOX	36.6023
12086	FLORIDA POWER & LIGHT (PTF)	0250003	12	1	621	TPCT5D	SO2	3.1652
12086	FLORIDA POWER & LIGHT (PTF)	0250003	12	2	621	TPCT5D	NOX	2.3227
12086	FLORIDA POWER & LIGHT (PTF)	0250003	12	2	621	TPCT5D	SO2	0.0158
12086	FLORIDA POWER & LIGHT (PTF)	0250003	2	1	621	PTP2	NOX	164.9627
12086	FLORIDA POWER & LIGHT (PTF)	0250003	2	1	621	PTP2	SO2	0.4923
12086	FLORIDA POWER & LIGHT (PTF)	0250003	2	2	621	PTP2	NOX	1,369.4790
12086	FLORIDA POWER & LIGHT (PTF)	0250003	2	2	621	PTP2	SO2	3,630.8972
12086	FLORIDA POWER & LIGHT (PTF)	0250003	2	5	621	PTP2	NOX	0.0212
12086	FLORIDA POWER & LIGHT (PTF)	0250003	2	5	621	PTP2	SO2	0.0005
12086	FLORIDA POWER & LIGHT (PTF)	0250003	9	1	621	TPCT5A	NOX	33.0220
12086	FLORIDA POWER & LIGHT (PTF)	0250003	9	1	621	TPCT5A	SO2	3.1901
12086	FLORIDA POWER & LIGHT (PTF)	0250003	9	2	621	TPCT5A	NOX	1.7790
12086	FLORIDA POWER & LIGHT (PTF)	0250003	9	2	621	TPCT5A	SO2	0.0149
12087	KEYS ENERGY SERVICES	0870003	11	1	6584	CT4	NOX	1.4310
12087	KEYS ENERGY SERVICES	0870003	11	1	6584	CT4	SO2	1.4650
12095	ORLANDO COGEN LIMITED, L.P.	0950203	1	1	54466	1	NOX	216.1960
12095	ORLANDO COGEN LIMITED, L.P.	0950203	1	1	54466	1	SO2	2.3110
12095	ORLANDO UTILITIES COMMISSION	0950137	1	2	564	1	NOX	10.3839
12095	ORLANDO UTILITIES COMMISSION	0950137	1	2	564	1	SO2	6.0272
12095	ORLANDO UTILITIES COMMISSION	0950137	1	3	564	1	NOX	6,043.7010
12095	ORLANDO UTILITIES COMMISSION	0950137	1	3	564	1	SO2	4,603.3644
12095	ORLANDO UTILITIES COMMISSION	0950137	1	4	564	1	NOX	114.3215
12095	ORLANDO UTILITIES COMMISSION	0950137	1	5	564	1	NOX	0.4436
12095	ORLANDO UTILITIES COMMISSION	0950137	1	5	564	1	SO2	1.2395
12095	ORLANDO UTILITIES COMMISSION	0950137	2	2	564	2	NOX	2.1343

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12095	ORLANDO UTILITIES COMMISSION	0950137	2	2	564	2	SO2	1.5284
12095	ORLANDO UTILITIES COMMISSION	0950137	2	3	564	2	NOX	2,571.2115
12095	ORLANDO UTILITIES COMMISSION	0950137	2	3	564	2	SO2	1,854.0515
12095	ORLANDO UTILITIES COMMISSION	0950137	2	4	564	2	NOX	0.1869
12095	ORLANDO UTILITIES COMMISSION	0950137	2	4	564	2	SO2	1.2351
12095	ORLANDO UTILITIES COMMISSION	0950137	2	5	564	2	NOX	18.9914
12095	ORLANDO UTILITIES COMMISSION	0950137	26	1	55821	25	NOX	64.4600
12095	ORLANDO UTILITIES COMMISSION	0950137	26	1	55821	25	SO2	1.5176
12095	ORLANDO UTILITIES COMMISSION	0950137	26	2	55821	25	NOX	0.0220
12095	ORLANDO UTILITIES COMMISSION	0950137	26	2	55821	25	SO2	0.0524
12095	ORLANDO UTILITIES COMMISSION	0950137	27	1	55821	26	NOX	63.5859
12095	ORLANDO UTILITIES COMMISSION	0950137	27	1	55821	26	SO2	1.4253
12095	ORLANDO UTILITIES COMMISSION	0950137	27	2	55821	26	NOX	0.0301
12095	ORLANDO UTILITIES COMMISSION	0950137	27	2	55821	26	SO2	0.0407
12095	WALT DISNEY WORLD COMPANY	0950111	88	1	7254	32432	NOX	46.6540
12095	WALT DISNEY WORLD COMPANY	0950111	88	1	7254	32432	SO2	0.1690
12095	WALT DISNEY WORLD COMPANY	0950111	88	2	7254	32432	NOX	0.8160
12095	WALT DISNEY WORLD COMPANY	0950111	88	2	7254	32432	SO2	0.1690
12097	FLORIDA POWER CORPORATION D/B/A PROGRESS	0970014	10	1	8049	**10	NOX	36.6040
12097	FLORIDA POWER CORPORATION D/B/A PROGRESS	0970014	10	1	8049	**10	SO2	0.8220
12097	FLORIDA POWER CORPORATION D/B/A PROGRESS	0970014	11	1	8049	**11	NOX	14.8560
12097	FLORIDA POWER CORPORATION D/B/A PROGRESS	0970014	11	1	8049	**11	SO2	16.0490
12097	FLORIDA POWER CORPORATION D/B/A PROGRESS	0970014	18	2	8049	**12	NOX	22.8470
12097	FLORIDA POWER CORPORATION D/B/A PROGRESS	0970014	18	2	8049	**12	SO2	0.6620
12097	FLORIDA POWER CORPORATION D/B/A PROGRESS	0970014	19	2	8049	**13	NOX	22.8420
12097	FLORIDA POWER CORPORATION D/B/A PROGRESS	0970014	19	2	8049	**13	SO2	0.6520
12097	FLORIDA POWER CORPORATION D/B/A PROGRESS	0970014	21	2	8049	**14	NOX	27.0890
12097	FLORIDA POWER CORPORATION D/B/A PROGRESS	0970014	21	2	8049	**14	SO2	0.8600
12097	FLORIDA POWER CORPORATION D/B/A PROGRESS	0970014	7	1	8049	**7	NOX	39.6190
12097	FLORIDA POWER CORPORATION D/B/A PROGRESS	0970014	7	1	8049	**7	SO2	0.8050
12097	FLORIDA POWER CORPORATION D/B/A PROGRESS	0970014	8	1	8049	**8	NOX	42.0240
12097	FLORIDA POWER CORPORATION D/B/A PROGRESS	0970014	8	1	8049	**8	SO2	0.7710
12097	FLORIDA POWER CORPORATION D/B/A PROGRESS	0970014	9	1	8049	**9	NOX	46.3020

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
12097	FLORIDA POWER CORPORATION D/B/A PROGRESS	0970014	9	1	8049	**9	SO2	0.8220
12097	KISSIMMEE UTILITY AUTHORITY	0970043	1	1	7238	**1	NOX	2.5510
12097	KISSIMMEE UTILITY AUTHORITY	0970043	1	1	7238	**1	SO2	0.0180
12097	KISSIMMEE UTILITY AUTHORITY	0970043	2	1	7238	2	NOX	35.8420
12097	KISSIMMEE UTILITY AUTHORITY	0970043	2	1	7238	2	SO2	0.6370
12097	KISSIMMEE UTILITY AUTHORITY	0970043	3	1	7238	3	NOX	48.7460
12097	KISSIMMEE UTILITY AUTHORITY	0970043	3	1	7238	3	SO2	2.6660
12097	RELIANT ENERGY FLORIDA, LLC	0970071	1	1	55192	OSC1	NOX	23.5770
12097	RELIANT ENERGY FLORIDA, LLC	0970071	1	1	55192	OSC1	SO2	0.5080
12097	RELIANT ENERGY FLORIDA, LLC	0970071	2	1	55192	OSC2	NOX	20.9820
12097	RELIANT ENERGY FLORIDA, LLC	0970071	2	1	55192	OSC2	SO2	0.4430
12097	RELIANT ENERGY FLORIDA, LLC	0970071	3	1	55192	OSC3	NOX	1.9594
12097	RELIANT ENERGY FLORIDA, LLC	0970071	3	1	55192	OSC3	SO2	0.0137
12097	RELIANT ENERGY FLORIDA, LLC	0970071	3	2	55192	OSC3	NOX	1.4396
12097	RELIANT ENERGY FLORIDA, LLC	0970071	3	2	55192	OSC3	SO2	0.4023
12099	CITY OF LAKE WORTH UTILITIES	0990045	9	1	673	S-3	NOX	9.1850
12099	CITY OF LAKE WORTH UTILITIES	0990045	9	1	673	S-3	SO2	0.0210
12099	FLORIDA POWER & LIGHT (PRV)	0990042	3	1	619	PRV3	NOX	205.2354
12099	FLORIDA POWER & LIGHT (PRV)	0990042	3	1	619	PRV3	SO2	0.5848
12099	FLORIDA POWER & LIGHT (PRV)	0990042	3	3	619	PRV3	NOX	1,134.5974
12099	FLORIDA POWER & LIGHT (PRV)	0990042	3	3	619	PRV3	SO2	2,783.2451
12099	FLORIDA POWER & LIGHT (PRV)	0990042	3	7	619	PRV3	NOX	0.0522
12099	FLORIDA POWER & LIGHT (PRV)	0990042	3	7	619	PRV3	SO2	0.0011
12099	FLORIDA POWER & LIGHT (PRV)	0990042	4	1	619	PRV4	NOX	811.0242
12099	FLORIDA POWER & LIGHT (PRV)	0990042	4	1	619	PRV4	SO2	1.8928
12099	FLORIDA POWER & LIGHT (PRV)	0990042	4	3	619	PRV4	NOX	1,442.8173
12099	FLORIDA POWER & LIGHT (PRV)	0990042	4	3	619	PRV4	SO2	2,898.8279
12099	FLORIDA POWER & LIGHT (PRV)	0990042	4	7	619	PRV4	NOX	0.0785
12099	FLORIDA POWER & LIGHT (PRV)	0990042	4	7	619	PRV4	SO2	0.0013
12101	FLORIDA POWER CORPDBAPROGRESS ENERGY FL	1010017	1	3	8048	1	NOX	3,501.5900
12101	FLORIDA POWER CORPDBAPROGRESS ENERGY FL	1010017	1	3	8048	1	SO2	13,162.8150
12101	FLORIDA POWER CORPDBAPROGRESS ENERGY FL	1010017	2	2	8048	2	NOX	3,075.4620
12101	FLORIDA POWER CORPDBAPROGRESS ENERGY FL	1010017	2	2	8048	2	SO2	13,875.6460

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
12101	SHADY HILLS POWER COMPANY, L.L.C.	1010373	1	1	55414	GT101	NOX	8.7864
12101	SHADY HILLS POWER COMPANY, L.L.C.	1010373	1	1	55414	GT101	SO2	2.3062
12101	SHADY HILLS POWER COMPANY, L.L.C.	1010373	1	2	55414	GT101	NOX	54.7576
12101	SHADY HILLS POWER COMPANY, L.L.C.	1010373	1	2	55414	GT101	SO2	1.1628
12101	SHADY HILLS POWER COMPANY, L.L.C.	1010373	2	1	55414	GT201	NOX	8.1692
12101	SHADY HILLS POWER COMPANY, L.L.C.	1010373	2	1	55414	GT201	SO2	2.2396
12101	SHADY HILLS POWER COMPANY, L.L.C.	1010373	2	2	55414	GT201	NOX	51.8038
12101	SHADY HILLS POWER COMPANY, L.L.C.	1010373	2	2	55414	GT201	SO2	1.0344
12101	SHADY HILLS POWER COMPANY, L.L.C.	1010373	3	1	55414	GT301	NOX	10.9116
12101	SHADY HILLS POWER COMPANY, L.L.C.	1010373	3	1	55414	GT301	SO2	3.0045
12101	SHADY HILLS POWER COMPANY, L.L.C.	1010373	3	2	55414	GT301	NOX	54.2374
12101	SHADY HILLS POWER COMPANY, L.L.C.	1010373	3	2	55414	GT301	SO2	1.1765
12103	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1030011	1	1	634	1	NOX	0.5783
12103	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1030011	1	1	634	1	SO2	4.4433
12103	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1030011	1	2	634	1	NOX	610.8667
12103	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1030011	1	2	634	1	SO2	3,345.8728
12103	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1030011	1	3	634	1	SO2	0.0559
12103	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1030011	2	2	634	2	NOX	459.2395
12103	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1030011	2	2	634	2	SO2	2,413.2856
12103	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1030011	2	5	634	2	NOX	0.0049
12103	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1030011	2	5	634	2	SO2	0.0581
12103	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1030011	2	6	634	2	NOX	0.0206
12103	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1030011	2	6	634	2	SO2	0.1412
12103	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1030011	3	1	634	3	SO2	43.9560
12103	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1030011	3	2	634	3	NOX	1,556.6930
12103	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1030011	3	2	634	3	SO2	6,619.4061
12103	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1030011	3	4	634	3	SO2	2.5505
12103	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1030011	3	5	634	3	SO2	0.1474
12105	APP, LP; APEC, LLC; CCFC	1050221	1	1	54658	1	NOX	136.8180
12105	APP, LP; APEC, LLC; CCFC	1050221	1	1	54658	1	SO2	1.9090
12105	APP, LP; APEC, LLC; CCFC	1050221	6	1	55833	6	NOX	27.0740
12105	APP, LP; APEC, LLC; CCFC	1050221	6	1	55833	6	SO2	0.1830
12105	APP, LP; APEC, LLC; CCFC	1050221	8	1	55412	CT1	NOX	147.8600

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12105	APP, LP; APEC, LLC; CCFC	1050221	8	1	55412	CT1	SO2	2.4420
12105	APP, LP; APEC, LLC; CCFC	1050221	9	1	55412	CT2	NOX	143.7530
12105	APP, LP; APEC, LLC; CCFC	1050221	9	1	55412	CT2	SO2	2.6250
12105	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1050223	1	2	7699	1	NOX	95.0180
12105	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1050223	1	2	7699	1	SO2	1.9450
12105	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1050234	1	1	7302	1A	NOX	105.9660
12105	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1050234	1	1	7302	1A	SO2	2.1790
12105	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1050234	14	1	7302	2A	NOX	62.2260
12105	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1050234	14	1	7302	2A	SO2	3.3587
12105	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1050234	14	2	7302	2A	SO2	0.0033
12105	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1050234	15	1	7302	2B	NOX	64.5920
12105	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1050234	15	1	7302	2B	SO2	3.0676
12105	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1050234	15	2	7302	2B	SO2	0.0044
12105	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1050234	16	1	7302	3A	NOX	52.2570
12105	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1050234	16	1	7302	3A	SO2	3.3406
12105	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1050234	16	2	7302	3A	SO2	0.0004
12105	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1050234	17	1	7302	3B	NOX	46.5160
12105	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1050234	17	1	7302	3B	SO2	1.5621
12105	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1050234	17	2	7302	3B	SO2	1.7439
12105	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1050234	2	1	7302	1B	NOX	109.5390
12105	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1050234	2	1	7302	1B	SO2	1.9040
12105	LAKELAND ELECTRIC	1050003	8	1	675	**8	NOX	0.0330
12105	LAKELAND ELECTRIC	1050003	8	1	675	**8	SO2	0.4450
12105	LAKELAND ELECTRIC	1050003	8	2	675	**8	NOX	41.0900
12105	LAKELAND ELECTRIC	1050004	1	1	676	1	NOX	50.0644
12105	LAKELAND ELECTRIC	1050004	1	1	676	1	SO2	0.1012
12105	LAKELAND ELECTRIC	1050004	1	2	676	1	NOX	32.2606
12105	LAKELAND ELECTRIC	1050004	1	2	676	1	SO2	233.2140
12105	LAKELAND ELECTRIC	1050004	1	3	676	1	NOX	0.1030
12105	LAKELAND ELECTRIC	1050004	1	3	676	1	SO2	0.8298
12105	LAKELAND ELECTRIC	1050004	28	2	676	5	NOX	97.4270
12105	LAKELAND ELECTRIC	1050004	28	2	676	5	SO2	2.5100
12105	LAKELAND ELECTRIC	1050004	5	1	676	2	NOX	66.8170

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
12105	LAKELAND ELECTRIC	1050004	5	1	676	2	SO2	0.3880
12105	LAKELAND ELECTRIC	1050004	5	2	676	2	NOX	3.7260
12105	LAKELAND ELECTRIC	1050004	5	2	676	2	SO2	10.3390
12105	LAKELAND ELECTRIC	1050004	6	3	676	3	NOX	5,229.7091
12105	LAKELAND ELECTRIC	1050004	6	3	676	3	SO2	7,205.7910
12105	LAKELAND ELECTRIC	1050004	6	4	676	3	NOX	1.9460
12105	LAKELAND ELECTRIC	1050004	6	4	676	3	SO2	0.0140
12105	LAKELAND ELECTRIC	1050004	6	9	676	3	NOX	12.6179
12105	LAKELAND ELECTRIC	1050004	6	9	676	3	SO2	17.3910
12105	ORANGE COGENERATION LIMITED PARTNERSHIP	1050231	1	1	54365	1	NOX	41.1760
12105	ORANGE COGENERATION LIMITED PARTNERSHIP	1050231	1	1	54365	1	SO2	0.5030
12105	ORANGE COGENERATION LIMITED PARTNERSHIP	1050231	2	1	54365	2	NOX	37.9090
12105	ORANGE COGENERATION LIMITED PARTNERSHIP	1050231	2	1	54365	2	SO2	0.4620
12105	POLK POWER PARTNERS, L.P.	1050217	1	1	54426	1	NOX	66.7060
12105	POLK POWER PARTNERS, L.P.	1050217	1	1	54426	1	SO2	1.0840
12105	TAMPA ELECTRIC COMPANY	1050233	1	2	7242	**1	NOX	396.4470
12105	TAMPA ELECTRIC COMPANY	1050233	1	2	7242	**1	SO2	1,069.8370
12105	TAMPA ELECTRIC COMPANY	1050233	10	2	7242	**3	NOX	16.6730
12105	TAMPA ELECTRIC COMPANY	1050233	10	2	7242	**3	SO2	0.5210
12105	TAMPA ELECTRIC COMPANY	1050233	13	1	7242	**4	NOX	13.3070
12105	TAMPA ELECTRIC COMPANY	1050233	13	1	7242	**4	SO2	0.2560
12105	TAMPA ELECTRIC COMPANY	1050233	14	1	7242	**5	NOX	11.9230
12105	TAMPA ELECTRIC COMPANY	1050233	14	1	7242	**5	SO2	0.2200
12105	TAMPA ELECTRIC COMPANY	1050233	9	1	7242	**2	NOX	12.6590
12105	TAMPA ELECTRIC COMPANY	1050233	9	1	7242	**2	SO2	0.3090
12107	FLORIDA POWER & LIGHT (PPN)	1070014	3	1	6246	HRSG11	NOX	421.6841
12107	FLORIDA POWER & LIGHT (PPN)	1070014	3	1	6246	HRSG11	SO2	0.6413
12107	FLORIDA POWER & LIGHT (PPN)	1070014	3	2	6246	HRSG11	NOX	0.1289
12107	FLORIDA POWER & LIGHT (PPN)	1070014	3	2	6246	HRSG11	SO2	0.1167
12107	FLORIDA POWER & LIGHT (PPN)	1070014	4	1	6246	HRSG12	NOX	468.8591
12107	FLORIDA POWER & LIGHT (PPN)	1070014	4	1	6246	HRSG12	SO2	0.6618
12107	FLORIDA POWER & LIGHT (PPN)	1070014	4	2	6246	HRSG12	NOX	0.1419
12107	FLORIDA POWER & LIGHT (PPN)	1070014	4	2	6246	HRSG12	SO2	0.1192

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
12107	FLORIDA POWER & LIGHT (PPN)	1070014	5	1	6246	HRSG21	NOX	348.2484
12107	FLORIDA POWER & LIGHT (PPN)	1070014	5	1	6246	HRSG21	SO2	0.5409
12107	FLORIDA POWER & LIGHT (PPN)	1070014	5	2	6246	HRSG21	NOX	0.0726
12107	FLORIDA POWER & LIGHT (PPN)	1070014	5	2	6246	HRSG21	SO2	0.0671
12107	FLORIDA POWER & LIGHT (PPN)	1070014	6	1	6246	HRSG22	NOX	354.3333
12107	FLORIDA POWER & LIGHT (PPN)	1070014	6	1	6246	HRSG22	SO2	0.5558
12107	FLORIDA POWER & LIGHT (PPN)	1070014	6	2	6246	HRSG22	NOX	0.0827
12107	FLORIDA POWER & LIGHT (PPN)	1070014	6	2	6246	HRSG22	SO2	0.0772
12107	SEMINOLE ELECTRIC COOPERATIVE, INC.	1070025	1	1	136	1	NOX	21.2265
12107	SEMINOLE ELECTRIC COOPERATIVE, INC.	1070025	1	1	136	1	SO2	25.5071
12107	SEMINOLE ELECTRIC COOPERATIVE, INC.	1070025	1	2	136	1	NOX	8,013.6016
12107	SEMINOLE ELECTRIC COOPERATIVE, INC.	1070025	1	2	136	1	SO2	9,629.6579
12107	SEMINOLE ELECTRIC COOPERATIVE, INC.	1070025	1	3	136	1	NOX	392.9049
12107	SEMINOLE ELECTRIC COOPERATIVE, INC.	1070025	1	3	136	1	SO2	472.1400
12107	SEMINOLE ELECTRIC COOPERATIVE, INC.	1070025	2	1	136	2	NOX	24.1851
12107	SEMINOLE ELECTRIC COOPERATIVE, INC.	1070025	2	1	136	2	SO2	25.5295
12107	SEMINOLE ELECTRIC COOPERATIVE, INC.	1070025	2	2	136	2	NOX	9,001.9783
12107	SEMINOLE ELECTRIC COOPERATIVE, INC.	1070025	2	2	136	2	SO2	9,502.3652
12107	SEMINOLE ELECTRIC COOPERATIVE, INC.	1070025	2	3	136	2	NOX	644.1927
12107	SEMINOLE ELECTRIC COOPERATIVE, INC.	1070025	2	3	136	2	SO2	680.0012
12111	FT PIERCE UTILITIES AUTHORITY	1110003	7	1	658	7	NOX	3.0720
12111	FT PIERCE UTILITIES AUTHORITY	1110003	7	1	658	7	SO2	0.0150
12111	FT PIERCE UTILITIES AUTHORITY	1110003	8	1	658	8	NOX	3.9480
12111	FT PIERCE UTILITIES AUTHORITY	1110003	8	1	658	8	SO2	0.0270
12113	SANTA ROSA ENERGY CENTER, LLC	1130168	1	1	55242	CT-1	NOX	2.5740
12113	SANTA ROSA ENERGY CENTER, LLC	1130168	1	1	55242	CT-1	SO2	0.0130
12121	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1210003	1	3	638	1	NOX	94.4050
12121	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1210003	1	3	638	1	SO2	161.7000
12121	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1210003	2	3	638	2	NOX	138.8130
12121	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1210003	2	3	638	2	SO2	497.7960
12121	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1210003	3	3	638	3	NOX	206.1160
12121	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	1210003	3	3	638	3	SO2	219.8740
12127	FLORIDA POWER & LIGHT (PSN)	1270009	1	2	620	PSN3	NOX	26.2474

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
12127	FLORIDA POWER & LIGHT (PSN)	1270009	1	2	620	PSN3	SO2	0.0450
12127	FLORIDA POWER & LIGHT (PSN)	1270009	1	3	620	PSN3	NOX	102.4412
12127	FLORIDA POWER & LIGHT (PSN)	1270009	1	3	620	PSN3	SO2	301.3209
12127	FLORIDA POWER & LIGHT (PSN)	1270009	1	5	620	PSN3	NOX	0.0044
12127	FLORIDA POWER & LIGHT (PSN)	1270009	1	5	620	PSN3	SO2	0.0001
12127	FLORIDA POWER & LIGHT (PSN)	1270009	10	1	620	SNCT4A	NOX	162.9600
12127	FLORIDA POWER & LIGHT (PSN)	1270009	10	1	620	SNCT4A	SO2	3.2870
12127	FLORIDA POWER & LIGHT (PSN)	1270009	11	1	620	SNCT4B	NOX	164.9690
12127	FLORIDA POWER & LIGHT (PSN)	1270009	11	1	620	SNCT4B	SO2	3.2720
12127	FLORIDA POWER & LIGHT (PSN)	1270009	12	1	620	SNCT4C	NOX	165.9270
12127	FLORIDA POWER & LIGHT (PSN)	1270009	12	1	620	SNCT4C	SO2	3.3120
12127	FLORIDA POWER & LIGHT (PSN)	1270009	13	1	620	SNCT4D	NOX	164.2300
12127	FLORIDA POWER & LIGHT (PSN)	1270009	13	1	620	SNCT4D	SO2	3.2140
12127	FLORIDA POWER & LIGHT (PSN)	1270009	14	1	620	SNCT5A	NOX	159.9210
12127	FLORIDA POWER & LIGHT (PSN)	1270009	14	1	620	SNCT5A	SO2	3.2940
12127	FLORIDA POWER & LIGHT (PSN)	1270009	15	1	620	SNCT5B	NOX	169.2910
12127	FLORIDA POWER & LIGHT (PSN)	1270009	15	1	620	SNCT5B	SO2	3.3520
12127	FLORIDA POWER & LIGHT (PSN)	1270009	16	1	620	SNCT5C	NOX	176.7560
12127	FLORIDA POWER & LIGHT (PSN)	1270009	16	1	620	SNCT5C	SO2	3.5150
12127	FLORIDA POWER & LIGHT (PSN)	1270009	17	1	620	SNCT5D	NOX	147.2680
12127	FLORIDA POWER & LIGHT (PSN)	1270009	17	1	620	SNCT5D	SO2	2.9870
12127	FLORIDA POWER CORPORATION D/B/A PROGRESS	1270028	15	1	6046	**7	NOX	25.0110
12127	FLORIDA POWER CORPORATION D/B/A PROGRESS	1270028	15	1	6046	**7	SO2	7.8710
12127	FLORIDA POWER CORPORATION D/B/A PROGRESS	1270028	16	1	6046	**8	NOX	24.7430
12127	FLORIDA POWER CORPORATION D/B/A PROGRESS	1270028	16	1	6046	**8	SO2	7.8890
12127	FLORIDA POWER CORPORATION D/B/A PROGRESS	1270028	17	1	6046	**9	NOX	21.1780
12127	FLORIDA POWER CORPORATION D/B/A PROGRESS	1270028	17	1	6046	**9	SO2	7.2580
12127	FLORIDA POWER CORPORATION D/B/A PROGRESS	1270028	18	1	6046	**10	NOX	12.8920
12127	FLORIDA POWER CORPORATION D/B/A PROGRESS	1270028	18	1	6046	**10	SO2	27.7750
12129	TALLAHASSEE CITY PURDOM GENERATING STA.	1290001	14	2	689	8	NOX	0.0095
12129	TALLAHASSEE CITY PURDOM GENERATING STA.	1290001	14	2	689	8	SO2	0.6976
12129	TALLAHASSEE CITY PURDOM GENERATING STA.	1290001	14	3	689	8	NOX	155.9895
12129	TALLAHASSEE CITY PURDOM GENERATING STA.	1290001	14	3	689	8	SO2	3.3884

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
12129	TALLAHASSEE CITY PURDOM GENERATING STA.	1290001	7	1	689	7	NOX	65.7000
12129	TALLAHASSEE CITY PURDOM GENERATING STA.	1290001	7	1	689	7	SO2	0.1650

1.9.8.4 Georgia

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
13015	Ga Power Company - Plant Bowen	01500011	S1	1	703	1BLR	NOX	3,551.5650
13015	Ga Power Company - Plant Bowen	01500011	S2	1	703	2BLR	NOX	4,843.6210
13015	Ga Power Company - Plant Bowen	01500011	S3	1	703	3BLR	NOX	5,702.3250
13015	Ga Power Company - Plant Bowen	01500011	S4	1	703	4BLR	NOX	4,357.2060
13051	Ga Power Company - Plant Kraft	05100006	CS1	1	733	1	NOX	1,149.0060
13051	Ga Power Company - Plant Kraft	05100006	CS1	1	733	2	NOX	1,033.9480
13051	Ga Power Company - Plant Kraft	05100006	CS1	1	733	2	SO2	1,878.7780
13051	Ga Power Company - Plant Kraft	05100006	CS1	1	733	3	NOX	2,049.3030
13051	Ga Power Company - Plant Kraft	05100006	CS1	1	733	3	SO2	3,622.6650
13051	Ga Power Company - Plant Kraft	05100006	CS1	2	733	4	NOX	80.5700
13051	Ga Power Company - Plant Kraft	05100006	CS1	2	733	4	SO2	124.1710
13067	Ga Power Company - Plant McDonough/Atkinson	06700003	ST1M	1	710	MB1	NOX	2,257.2080
13067	Ga Power Company - Plant McDonough/Atkinson	06700003	ST1M	1	710	MB1	SO2	13,983.3410
13067	Ga Power Company - Plant McDonough/Atkinson	06700003	ST1M	1	710	MB2	SO2	14,554.9210
13077	Ga Power Company - Plant Yates	07700001	ST1	1	728	Y2BR	NOX	1,528.4600
13077	Ga Power Company - Plant Yates	07700001	ST1A	1	728	Y1BR	NOX	1,426.7150
13077	Ga Power Company - Plant Yates	07700001	ST2	1	728	Y4BR	NOX	1,612.0040
13077	Ga Power Company - Plant Yates	07700001	ST2	1	728	Y4BR	SO2	9,213.6580
13077	Ga Power Company - Plant Yates	07700001	ST2	1	728	Y5BR	NOX	1,432.3790
13077	Ga Power Company - Plant Yates	07700001	ST2	1	728	Y5BR	SO2	8,636.7830
13095	Ga Power Company - Plant Mitchell	09500002	ST3	1	727	3	NOX	1,985.0730
13103	Effingham County Power, LLC	10300012	S2	CTG2	55406	2	NOX	42.4840
13103	Ga Power Co Plt Mcintosh	10300003	S1	1	6124	1	NOX	2,092.3980
13115	Ga Power Company - Plant Hammond	11500003	ST2	1	708	4	NOX	4,176.1840
13127	Ga Power Company - Plant McManus	12700004	ST01	2	715	1	NOX	18.4800
13127	Ga Power Company - Plant McManus	12700004	ST01	2	715	2	NOX	27.5130
13149	Ga Power Company - Plant Wansley	14900001	ST01	1	6052	1	NOX	5,831.9880
13149	Ga Power Company - Plant Wansley	14900001	ST02	1	6052	2	NOX	8,026.3610

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
13149	Ga Power Company - Plant Wansley	14900001	ST04	1	6052	6A	NOX	37.9540
13149	Ga Power Company - Plant Wansley	14900001	ST05	1	6052	6B	NOX	34.9080
13149	Ga Power Company - Plant Wansley	14900001	ST06	1	6052	7A	NOX	39.0840
13149	Ga Power Company - Plant Wansley	14900001	ST07	1	6052	7B	NOX	40.7190
13207	Ga Power Company - Plant Scherer	20700008	ST2	1	6257	2	NOX	4,670.3160
13207	Ga Power Company - Plant Scherer	20700008	ST4	1	6257	4	NOX	4,672.1020
13237	Ga Power Company - Plant Branch	23700008	ST1	1	709	1	NOX	4,161.1400
13237	Ga Power Company - Plant Branch	23700008	ST1	1	709	1	SO2	17,707.5940
13237	Ga Power Company - Plant Branch	23700008	ST1	1	709	2	NOX	4,561.6700
13237	Ga Power Company - Plant Branch	23700008	ST1	1	709	2	SO2	19,404.3890
13237	Ga Power Company - Plant Branch	23700008	ST2	1	709	3	SO2	28,422.5590
13237	Ga Power Company - Plant Branch	23700008	ST2	1	709	4	NOX	6,559.2620
13237	Ga Power Company - Plant Branch	23700008	ST2	1	709	4	SO2	32,828.1950
13297	DOYLE GENERATING FACILITY	29700041	41	1	55244	CTG-5	NOX	6.4370

1.9.8.5 Kentucky

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
21049	East Ky Power Coop	00003	001	1	1385	1	NOX	473.7850
21049	East Ky Power Coop	00003	001	1	1385	1	SO2	1,097.5790
21049	East Ky Power Coop	00003	002	1	1385	2	NOX	482.6740
21049	East Ky Power Coop	00003	002	1	1385	2	SO2	1,094.5890
21049	East Ky Power Coop	00003	003	1	1385	3	SO2	2,563.1770
21127	Kentucky Power Co-Big Sandy Plant	00003	01	1	1353	BSU1	NOX	3,393.8260
21127	Kentucky Power Co-Big Sandy Plant	00003	01	1	1353	BSU1	SO2	10,636.3242
21127	Kentucky Power Co-Big Sandy Plant	00003	01	2	1353	BSU1	NOX	0.9080
21127	Kentucky Power Co-Big Sandy Plant	00003	01	2	1353	BSU1	SO2	0.5008
21127	Kentucky Power Co-Big Sandy Plant	00003	02	1	1353	BSU2	NOX	11,585.0341
21127	Kentucky Power Co-Big Sandy Plant	00003	02	1	1353	BSU2	SO2	36,112.3874
21127	Kentucky Power Co-Big Sandy Plant	00003	02	2	1353	BSU2	NOX	3.1369
21127	Kentucky Power Co-Big Sandy Plant	00003	02	2	1353	BSU2	SO2	1.7256
21167	KY Utilities Co - Brown Station	00001	023-29	10	1355	9	NOX	3.7870
21167	KY Utilities Co - Brown Station	00001	023-29	11	1355	9	NOX	6.1960
21167	KY Utilities Co - Brown Station	00001	023-29	12	1355	10	NOX	6.2687

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
21167	KY Utilities Co - Brown Station	00001	023-29	13	1355	10	NOX	0.7833
21167	KY Utilities Co - Brown Station	00001	023-29	14	1355	11	NOX	4.0640
21167	KY Utilities Co - Brown Station	00001	023-29	2	1355	5	NOX	10.9231
21167	KY Utilities Co - Brown Station	00001	023-29	3	1355	5	NOX	0.0119
21167	KY Utilities Co - Brown Station	00001	023-29	4	1355	6	NOX	19.8940
21167	KY Utilities Co - Brown Station	00001	023-29	5	1355	6	NOX	0.0610
21167	KY Utilities Co - Brown Station	00001	023-29	6	1355	7	NOX	71.1807
21167	KY Utilities Co - Brown Station	00001	023-29	7	1355	7	NOX	0.9393
21167	KY Utilities Co - Brown Station	00001	023-29	8	1355	8	NOX	19.3462
21167	KY Utilities Co - Brown Station	00001	023-29	9	1355	8	NOX	0.2088
21177	Tennessee Valley Authority - Paradise Fossil Plant	00006	EU01	1	1378	1	SO2	11,733.6377
21177	Tennessee Valley Authority - Paradise Fossil Plant	00006	EU01	2	1378	1	SO2	2.9613
21177	Tennessee Valley Authority - Paradise Fossil Plant	00006	EU01	3	1378	1	SO2	460.5856
21177	Tennessee Valley Authority - Paradise Fossil Plant	00006	EU01	4	1378	1	SO2	0.0620
21177	Tennessee Valley Authority - Paradise Fossil Plant	00006	EU01	5	1378	1	SO2	0.0774
21177	Tennessee Valley Authority - Paradise Fossil Plant	00006	EU02	1	1378	2	SO2	17,824.1331
21177	Tennessee Valley Authority - Paradise Fossil Plant	00006	EU02	2	1378	2	SO2	4.4981
21177	Tennessee Valley Authority - Paradise Fossil Plant	00006	EU02	3	1378	2	SO2	699.6589
21177	Tennessee Valley Authority - Paradise Fossil Plant	00006	EU02	4	1378	2	SO2	0.1078
21177	Tennessee Valley Authority - Paradise Fossil Plant	00006	EU03	1	1378	3	SO2	3,761.2121
21177	Tennessee Valley Authority - Paradise Fossil Plant	00006	EU03	2	1378	3	SO2	0.9492
21177	Tennessee Valley Authority - Paradise Fossil Plant	00006	EU03	3	1378	3	SO2	147.6405
21177	Tennessee Valley Authority - Paradise Fossil Plant	00006	EU03	4	1378	3	SO2	0.0519
21177	Tennessee Valley Authority - Paradise Fossil Plant	00006	EU03	5	1378	3	SO2	0.0243
21183	Western KY Energy Corp - Wilson Station	00069	EU-01	1	6823	W1	NOX	6,598.1580
21199	East Ky Power Coop	00005	001	1	1384	1	NOX	765.9259
21199	East Ky Power Coop	00005	001	1	1384	1	SO2	3,495.6659
21199	East Ky Power Coop	00005	001	2	1384	1	NOX	777.2031
21199	East Ky Power Coop	00005	001	2	1384	1	SO2	3,242.4411
21199	East Ky Power Coop	00005	002	1	1384	2	NOX	1,973.1387
21199	East Ky Power Coop	00005	002	1	1384	2	SO2	8,877.3747
21199	East Ky Power Coop	00005	002	2	1384	2	NOX	1,022.5603
21199	East Ky Power Coop	00005	002	2	1384	2	SO2	4,205.4283

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
21233	Western KY Energy Corp - Green Station	00052	EU01G1	1	6639	G1	NOX	2,650.9020
21233	Western KY Energy Corp - Green Station	00052	EU02G2	1	6639	G2	NOX	2,906.2470
21233	Western KY Energy Corp - Reid HMP&L Station 2	00001	EU01	1	1383	R1	SO2	6,735.5940
21233	Western KY Energy Corp - Reid HMP&L Station 2	00001	EU02	1	1382	H1	SO2	1,786.9660
21233	Western KY Energy Corp - Reid HMP&L Station 2	00001	EU03	1	1382	H2	SO2	1,901.4570

1.9.8.6 Kentucky – Jefferson County

No issues identified.

1.9.8.7 Mississippi

No changes requested by State.

1.9.8.8 North Carolina

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
37035	Duke Energy Carolinas, LLC - Marshall Steam Station	3703500073	1	S-1	2727	1	NOX	2,289.4390
37035	Duke Energy Carolinas, LLC - Marshall Steam Station	3703500073	1	S-1	2727	1	SO2	7,552.4020
37035	Duke Energy Carolinas, LLC - Marshall Steam Station	3703500073	2	S-2	2727	2	NOX	2,677.0700
37035	Duke Energy Carolinas, LLC - Marshall Steam Station	3703500073	2	S-2	2727	2	SO2	7,099.6390
37035	Duke Energy Carolinas, LLC - Marshall Steam Station	3703500073	3	S-3	2727	3	NOX	4,963.1800
37035	Duke Energy Carolinas, LLC - Marshall Steam Station	3703500073	3	S-3	2727	3	SO2	7,617.8070
37035	Duke Energy Carolinas, LLC - Marshall Steam Station	3703500073	4	S-4	2727	4	NOX	4,731.1770
37035	Duke Energy Carolinas, LLC - Marshall Steam Station	3703500073	4	S-4	2727	4	SO2	1,872.1070
37071	Duke Energy Carolinas, LLC - Riverbend Steam Station	3707100040	10	S-8	2732	10	NOX	665.6580
37071	Duke Energy Carolinas, LLC - Riverbend Steam Station	3707100040	10	S-8	2732	10	SO2	4,858.9900
37071	Duke Energy Carolinas, LLC - Riverbend Steam Station	3707100040	7	S-5	2732	7	NOX	489.1860
37071	Duke Energy Carolinas, LLC - Riverbend Steam Station	3707100040	7	S-5	2732	7	SO2	3,329.1800
37071	Duke Energy Carolinas, LLC - Riverbend Steam Station	3707100040	8	S-6	2732	8	NOX	472.6930
37071	Duke Energy Carolinas, LLC - Riverbend Steam Station	3707100040	8	S-6	2732	8	SO2	2,908.2160
37071	Duke Energy Carolinas, LLC - Riverbend Steam Station	3707100040	9	S-7	2732	9	NOX	602.4270
37071	Duke Energy Carolinas, LLC - Riverbend Steam Station	3707100040	9	S-7	2732	9	SO2	4,810.3880
37071	Duke Power Company, LLC - Allen Steam Station	3707100039	ES1	S-1	2718	1	NOX	853.1550
37071	Duke Power Company, LLC - Allen Steam Station	3707100039	ES1	S-1	2718	1	SO2	7,260.7670
37071	Duke Power Company, LLC - Allen Steam Station	3707100039	ES2	S-2	2718	2	NOX	821.5290
37071	Duke Power Company, LLC - Allen Steam Station	3707100039	ES2	S-2	2718	2	SO2	7,082.6320
37071	Duke Power Company, LLC - Allen Steam Station	3707100039	ES3	S-3	2718	3	NOX	1,426.5220

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
37071	Duke Power Company, LLC - Allen Steam Station	3707100039	ES3	S-3	2718	3	SO2	12,391.6140
37071	Duke Power Company, LLC - Allen Steam Station	3707100039	ES4	S-4	2718	4	NOX	1,499.5870
37071	Duke Power Company, LLC - Allen Steam Station	3707100039	ES4	S-4	2718	4	SO2	11,576.6420
37071	Duke Power Company, LLC - Allen Steam Station	3707100039	ES5	S-5	2718	5	NOX	1,836.9730
37071	Duke Power Company, LLC - Allen Steam Station	3707100039	ES5	S-5	2718	5	SO2	12,238.2670
37071	Duke Power Company, LLC - Allen Steam Station	3707100039	ES6	S-7	2718	1	NOX	0.0200
37071	Duke Power Company, LLC - Allen Steam Station	3707100039	ES6	S-7	2718	1	SO2	0.0500
37129	Carolina Power_Light Company d/b/a Progress Energy Caro	3712900036	UNIT 1	S-1	2713	1	NOX	980.3120
37129	Carolina Power_Light Company d/b/a Progress Energy Caro	3712900036	UNIT 1	S-1	2713	1	SO2	3,458.9720
37129	Carolina Power_Light Company d/b/a Progress Energy Caro	3712900036	UNIT 1	S-1	2713	2	NOX	1,212.7380
37129	Carolina Power_Light Company d/b/a Progress Energy Caro	3712900036	UNIT 1	S-1	2713	2	SO2	4,241.5260
37145	Progress Energy - Mayo Facility	3714500045	ES1	S-1	6250	1A	NOX	723.6110
37145	Progress Energy - Mayo Facility	3714500045	ES1	S-1	6250	1A	SO2	12,168.0340
37145	Progress Energy - Mayo Facility	3714500045	ES1	S-1	6250	1B	NOX	639.7110
37145	Progress Energy - Mayo Facility	3714500045	ES1	S-1	6250	1B	SO2	10,642.4450
37145	Progress Energy - Roxboro Plant	3714500029	EP3	S-3	2712	3A	NOX	1,208.9670
37145	Progress Energy - Roxboro Plant	3714500029	EP3	S-3	2712	3A	SO2	13,704.1530
37145	Progress Energy - Roxboro Plant	3714500029	EP3	S-3	2712	3B	NOX	1,162.7530
37145	Progress Energy - Roxboro Plant	3714500029	EP3	S-3	2712	3B	SO2	13,152.2440
37145	Progress Energy - Roxboro Plant	3714500029	EP4	S-4	2712	4B	NOX	0.6924
37145	Progress Energy - Roxboro Plant	3714500029	EP4	S-4	2712	4B	SO2	6.7533
37145	Progress Energy - Roxboro Plant	3714500029	EP4	S-999	2712	4B	NOX	720.8446
37145	Progress Energy - Roxboro Plant	3714500029	EP4	S-999	2712	4B	SO2	7,050.8667
37145	Progress Energy - Roxboro Plant	3714500029	EP4a	S-14	2712	4A	NOX	804.9740
37145	Progress Energy - Roxboro Plant	3714500029	EP4a	S-14	2712	4A	SO2	7,905.2590
37157	Duke Energy Carolinas, LLC - Dan River Steam Station	3715700015	EP2	S-2	2723	2	SO2	2,040.1332
37157	Duke Energy Carolinas, LLC - Dan River Steam Station	3715700015	EP3A	S-3	2723	3	NOX	445.5322
37157	Duke Energy Carolinas, LLC - Dan River Steam Station	3715700015	EP3A	S-3	2723	3	SO2	1,925.9266
37157	Duke Energy Carolinas, LLC - Dan River Steam Station	3715700015	EP3B	S-4	2723	3	NOX	237.8488
37157	Duke Energy Carolinas, LLC - Dan River Steam Station	3715700015	EP3B	S-4	2723	3	SO2	2,017.6564
37157	Duke Energy Carolinas, LLC - Dan River Steam Station	3715700015	EP5	S-6	2723	1	NOX	2.2240
37157	Duke Energy Carolinas, LLC - Dan River Steam Station	3715700015	EP6	S-7	2723	1	NOX	0.9928
37157	Duke Energy Carolinas, LLC - Dan River Steam Station	3715700015	EP6	S-7	2723	1	SO2	0.2799

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
37157	Duke Energy Carolinas, LLC - Dan River Steam Station	3715700015	EP9	S-10	2723	1	NOX	0.0894
37157	Duke Energy Carolinas, LLC - Dan River Steam Station	3715700015	EP9	S-10	2723	1	SO2	0.2899
37157	Duke Energy Carolinas, LLC - Dan River Steam Station	3715700015	F-1	S-14	2723	2	NOX	2.2023
37157	Duke Energy Carolinas, LLC - Dan River Steam Station	3715700015	F-1	S-14	2723	2	SO2	0.2458
37157	Duke Energy Carolinas, LLC - Rockingham Co. Comb. Turbine	3715700156	EP1	S-11	55116	CT5	NOX	3.0716
37157	Duke Energy Carolinas, LLC - Rockingham Co. Comb. Turbine	3715700156	EP1	S-11	55116	CT5	SO2	0.2090
37157	Duke Energy Carolinas, LLC - Rockingham Co. Comb. Turbine	3715700156	EP1	S-999	55116	CT5	NOX	3.0716
37157	Duke Energy Carolinas, LLC - Rockingham Co. Comb. Turbine	3715700156	EP1	S-999	55116	CT5	SO2	0.2090
37157	Duke Energy Carolinas, LLC - Rockingham Co. Comb. Turbine	3715700156	EP2	S-12	55116	CT5	NOX	1.6614
37157	Duke Energy Carolinas, LLC - Rockingham Co. Comb. Turbine	3715700156	EP2	S-12	55116	CT5	SO2	0.0523
37157	Duke Energy Carolinas, LLC - Rockingham Co. Comb. Turbine	3715700156	EP2	S-999a	55116	CT5	NOX	1.6614
37157	Duke Energy Carolinas, LLC - Rockingham Co. Comb. Turbine	3715700156	EP2	S-999a	55116	CT5	SO2	0.0523
37157	Duke Energy Carolinas, LLC - Rockingham Co. Comb. Turbine	3715700156	EP3	S-13	55116	CT5	NOX	1.6614
37157	Duke Energy Carolinas, LLC - Rockingham Co. Comb. Turbine	3715700156	EP3	S-13	55116	CT5	SO2	0.0523
37157	Duke Energy Carolinas, LLC - Rockingham Co. Comb. Turbine	3715700156	EP3	S-999b	55116	CT5	NOX	1.6614
37157	Duke Energy Carolinas, LLC - Rockingham Co. Comb. Turbine	3715700156	EP3	S-999b	55116	CT5	SO2	0.0523
37157	Duke Energy Carolinas, LLC - Rockingham Co. Comb. Turbine	3715700156	EP4	S-14	55116	CT5	NOX	1.6614
37157	Duke Energy Carolinas, LLC - Rockingham Co. Comb. Turbine	3715700156	EP4	S-14	55116	CT5	SO2	0.0523
37157	Duke Energy Carolinas, LLC - Rockingham Co. Comb. Turbine	3715700156	EP4	S-999c	55116	CT5	NOX	1.6614
37157	Duke Energy Carolinas, LLC - Rockingham Co. Comb. Turbine	3715700156	EP4	S-999c	55116	CT5	SO2	0.0523
37157	Duke Energy Carolinas, LLC - Rockingham Co. Comb. Turbine	3715700156	EP5	S-15	55116	CT5	NOX	1.6614
37157	Duke Energy Carolinas, LLC - Rockingham Co. Comb. Turbine	3715700156	EP5	S-15	55116	CT5	SO2	0.0523
37157	Duke Energy Carolinas, LLC - Rockingham Co. Comb. Turbine	3715700156	EP5	S-999d	55116	CT5	NOX	1.6614
37157	Duke Energy Carolinas, LLC - Rockingham Co. Comb. Turbine	3715700156	EP5	S-999d	55116	CT5	SO2	0.0523
37159	Duke Power Company, LLC - Buck Steam Station	3715900004	ES5	S-2	2720	5	NOX	152.1090
37159	Duke Power Company, LLC - Buck Steam Station	3715900004	ES5	S-2	2720	5	SO2	652.7410
37159	Duke Power Company, LLC - Buck Steam Station	3715900004	ES6	S-3	2720	6	NOX	148.3810
37159	Duke Power Company, LLC - Buck Steam Station	3715900004	ES6	S-3	2720	6	SO2	625.4140
37159	Duke Power Company, LLC - Buck Steam Station	3715900004	ES9	S-6	2720	7	NOX	221.8380
37159	Duke Power Company, LLC - Buck Steam Station	3715900004	ES9	S-6	2720	7	SO2	794.9190
37159	Duke Power Company, LLC - Buck Steam Station	3715900004	ES9	S-6	2720	8	NOX	581.5690
37159	Duke Power Company, LLC - Buck Steam Station	3715900004	ES9	S-6	2720	8	SO2	4,265.8840
37159	Duke Power Company, LLC - Buck Steam Station	3715900004	ES9	S-6	2720	9	NOX	541.7360

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
37159	Duke Power Company, LLC - Buck Steam Station	3715900004	ES9	S-6	2720	9	SO2	3,921.5680
37159	Duke Power Company, LLC - Buck Steam Station	3715900004	ES9C	S-9	2720	5	NOX	0.5180
37161	Duke Energy Carolinas, LLC - Cliffside Steam Station	3716100028	1	S-1	2721	1	NOX	229.6902
37161	Duke Energy Carolinas, LLC - Cliffside Steam Station	3716100028	1	S-1	2721	1	SO2	715.4729
37161	Duke Energy Carolinas, LLC - Cliffside Steam Station	3716100028	2	S-2	2721	2	NOX	279.2990
37161	Duke Energy Carolinas, LLC - Cliffside Steam Station	3716100028	2	S-2	2721	2	SO2	996.3330
37161	Duke Energy Carolinas, LLC - Cliffside Steam Station	3716100028	3	S-3	2721	3	NOX	478.6000
37161	Duke Energy Carolinas, LLC - Cliffside Steam Station	3716100028	3	S-3	2721	3	SO2	1,586.2770
37161	Duke Energy Carolinas, LLC - Cliffside Steam Station	3716100028	4	S-4	2721	4	NOX	512.3110
37161	Duke Energy Carolinas, LLC - Cliffside Steam Station	3716100028	4	S-4	2721	4	SO2	1,632.6250
37161	Duke Energy Carolinas, LLC - Cliffside Steam Station	3716100028	5	S-5	2721	1	NOX	3.5932
37161	Duke Energy Carolinas, LLC - Cliffside Steam Station	3716100028	5	S-5	2721	1	SO2	11.8032
37161	Duke Energy Carolinas, LLC - Cliffside Steam Station	3716100028	5	S-5	2721	5	NOX	995.8110
37161	Duke Energy Carolinas, LLC - Cliffside Steam Station	3716100028	5	S-5	2721	5	SO2	22,623.2250
37161	Duke Energy Carolinas, LLC - Cliffside Steam Station	3716100028	Misc.	S-10	2721	2	NOX	0.0600
37161	Duke Energy Carolinas, LLC - Cliffside Steam Station	3716100028	Misc.	S-10	2721	2	SO2	0.0100
37169	Duke Energy Carolinas, LLC - Belews Creek Steam Station	3716900004	EP1	S-1	8042	1	NOX	1,300.6860
37169	Duke Energy Carolinas, LLC - Belews Creek Steam Station	3716900004	EP1	S-1	8042	1	SO2	38,355.6980
37169	Duke Energy Carolinas, LLC - Belews Creek Steam Station	3716900004	EP2	S-2	8042	2	NOX	2,119.9732
37169	Duke Energy Carolinas, LLC - Belews Creek Steam Station	3716900004	EP2	S-2	8042	2	SO2	48,031.7700
37169	Duke Energy Carolinas, LLC - Belews Creek Steam Station	3716900004	F-1	S-12	8042	2	NOX	0.1598
37169	Duke Energy Carolinas, LLC - Belews Creek Steam Station	3716900004	F-1	S-12	8042	2	SO2	0.0300

1.9.8.9 North Carolina – Buncombe County

No affected facilities in the county.

1.9.8.10 North Carolina – Forsyth County

No affected facilities in the county.

1.9.8.11 North Carolina – Mecklenburg County

No affected facilities in the county.

1.9.8.12 South Carolina

County FIPS	Facility Name	Facility ID	Point ID	Process ID	orisid	blrid6	Pollutant Code	Emissions
45021	BROAD RIVER ENERGY LLC	0600-0076	1	1	55166	CT-1	NOX	37.4070
45021	BROAD RIVER ENERGY LLC	0600-0076	1	1	55166	CT-1	SO2	0.6130
45021	BROAD RIVER ENERGY LLC	0600-0076	2	3	55166	CT-2	NOX	27.9370
45021	BROAD RIVER ENERGY LLC	0600-0076	2	3	55166	CT-2	SO2	0.4210
45021	BROAD RIVER ENERGY LLC	0600-0076	3	5	55166	CT-3	NOX	43.5220
45021	BROAD RIVER ENERGY LLC	0600-0076	3	5	55166	CT-3	SO2	0.6590
45021	CHEROKEE COGENERATION	0600-0060	1	1	55043	CCCP1	NOX	26.8170
45021	CHEROKEE COGENERATION	0600-0060	1	1	55043	CCCP1	SO2	0.5540
45053	SCE&G JASPER	1360-0026	1	1	55927	CT01	NOX	30.4640
45053	SCE&G JASPER	1360-0026	1	1	55927	CT01	SO2	1.5710
45053	SCE&G JASPER	1360-0026	2	1	55927	CT02	NOX	37.6330
45053	SCE&G JASPER	1360-0026	2	1	55927	CT02	SO2	2.2380
45053	SCE&G JASPER	1360-0026	3	1	55927	CT03	NOX	33.1860
45053	SCE&G JASPER	1360-0026	3	1	55927	CT03	SO2	1.6040

1.9.8.13 Tennessee
No affected facilities.

1.9.8.14 Tennessee – Davidson County (Nashville)
No affected facilities in the county.

1.9.8.15 Tennessee – Hamilton County (Chattanooga)
No affected facilities in the county.

1.9.8.16 Tennessee – Knox County (Knoxville)
No affected facilities in the county.

1.9.8.17 Tennessee – Shelby County (Memphis)
No issues identified.

1.9.8.18 Virginia
No issues identified.

1.9.8.19 West Virginia
No changes requested by State as a result of the CEMS review. West Virginia did submit revised records for 70 emission release points for PM10-PRI and PM25-PRI. Those records were inserted into the database at the time that the other CEM related changes were made.

1.9.8.20 Latitude/Longitude Changes

Appendix A lists the State/County FIPS code, the State Facility ID, the Name of the Facility, the Emission Release point ID and the new Latitude and Longitude for those records that were replaced based on the quality assurance of latitude and longitude values performed by GA EPD staff as part of the Version 1.10a update.

1.10 2007 POINT SOURCE EMISSION SUMMARY

This section presents State-level summaries of the annual point source emissions by pollutant in the 2007 SEMAP version 1.10a inventory and compares the emissions to the 2002 VISTAS Best and Final inventory. For most States and pollutants, point source emissions have decreased from 2002 to 2007.

Exhibit 7 shows that CO emissions in the SEMAP region have decreased by about 30 percent between 2002 and 2007. Exhibit 8 shows that most of the point source CO emissions (about 81 percent) come from nonEGUs that are not required to report emissions to CAMD.

Exhibit 9 shows that NH_3 emissions in the SEMAP region have remained about the same in 2002 and 2007, although NH_3 emissions increased substantially in some States while decreasing in others. Exhibit 10 shows that most of the point source NH_3 emissions (about 90 percent) come from nonEGUs that are not required to report emissions to CAMD.

Exhibit 11 shows that NOx emissions have decreased by about 26 percent between 2002 and 2007. All States showed a decrease in NOx emissions from point sources. Exhibit 12 shows that about 69 percent of the point source NOx emissions come from EGUs that are required to report emissions to CAMD. Another 28 percent of the NOx emissions result from nonEGUs that are not required to report emissions to CAMD.

Exhibit 13 shows that PM10-PRI emissions in the SEMAP region have decreased by about 7 percent between 2002 and 2007, although PM10-PRI emissions increased substantially in some States while decreasing in others. Exhibit 14 shows that about 46 percent of the point source PM10-PRI emissions come from EGUs that are required to report emissions to CAMD. Another 53 percent of the PM10-PRI emissions result from nonEGUs that are not required to report emissions to CAMD. For PM, the emissions presented in Exhibit 13 show the values initially used for WV based on the data submitted as described in section 1.9.8.19. After modeling had already been conducted, WV indicated that they believed that the values used in version 1.9 of the inventory were actually correct and requested that the emissions be changed. Since modeling had already been performed, SEMAP decided to replace the data in the inventory files but did not perform new modeling runs. Appendix B shows the differences between the version 1.9 and version 1.10a inventories for the records that WV initially asked to be revised.

Exhibit 15 shows that PM25-PRI emissions in the SEMAP region have decreased by about 3 percent between 2002 and 2007, although PM25-PRI emissions increased substantially in some States while decreasing in others. Exhibit 16 shows that about 45 percent of the point source PM25-PRI emissions come from EGUs that are required to report emissions to CAMD. Another 54 percent of the PM25-PRI emissions result from nonEGUs that are not required to report emissions to CAMD.

Exhibit 17 shows that SO_2 emissions in the SEMAP region have decreased by about 15 percent between 2002 and 2007. All States except Georgia showed a decrease in SO_2 emissions. Exhibit 18 shows that most of the point source SO_2 emissions (about 87 percent) come from EGUs that are required to report emissions to CAMD. Another 11 percent of the SO_2 emissions result from nonEGUs that are not required to report emissions to CAMD.

Exhibit 19 shows that VOC emissions in the SEMAP region have decreased by about 21 percent between 2002 and 2007. Exhibit 20 shows that nearly all of the point source VOC emissions (about 97 percent) result from nonEGUs that are not required to report emissions to CAMD.

The reasons for the differences between 2002 and 2007 are many and vary by State, facility, and pollutant. Examples include: 1) new controls added between 2002 and 2007; 2) change in emission factors or source test data; 3) inclusion of PM condensables that were not included in 2002; 4) more {or less} facilities in 2002 inventory than in 2007 inventory; 5) new sources that came online between 2002 and 2007; 6) different fuels used in 2007 than in 2002; 7) industry specific economic growth or contraction between 2002 and 2007; 8) facility or emission unit closures; and 9) errors in 2002 inventory.

Exhibit 7 – 2002 and 2007 Point Source CO Emissions by State (tons/year)

STATE	2002	2007	Change
Alabama	185,550	119,344	-36%
Florida	139,045	111,280	-20%
Georgia	140,561	82,547	-41%
Kentucky	122,555	82,553	-33%
Mississippi	59,871	40,294	-33%
North Carolina	64,461	66,811	4%
South Carolina	63,305	60,375	-5%
Tennessee	122,348	51,185	-58%
Virginia	70,688	72,029	2%
West Virginia	100,220	65,230	-35%
SEMAP	**1,068,604**	**751,648**	**-30%**

Exhibit 8 – 2007 Point Source CO Emissions by Category (tons/year)

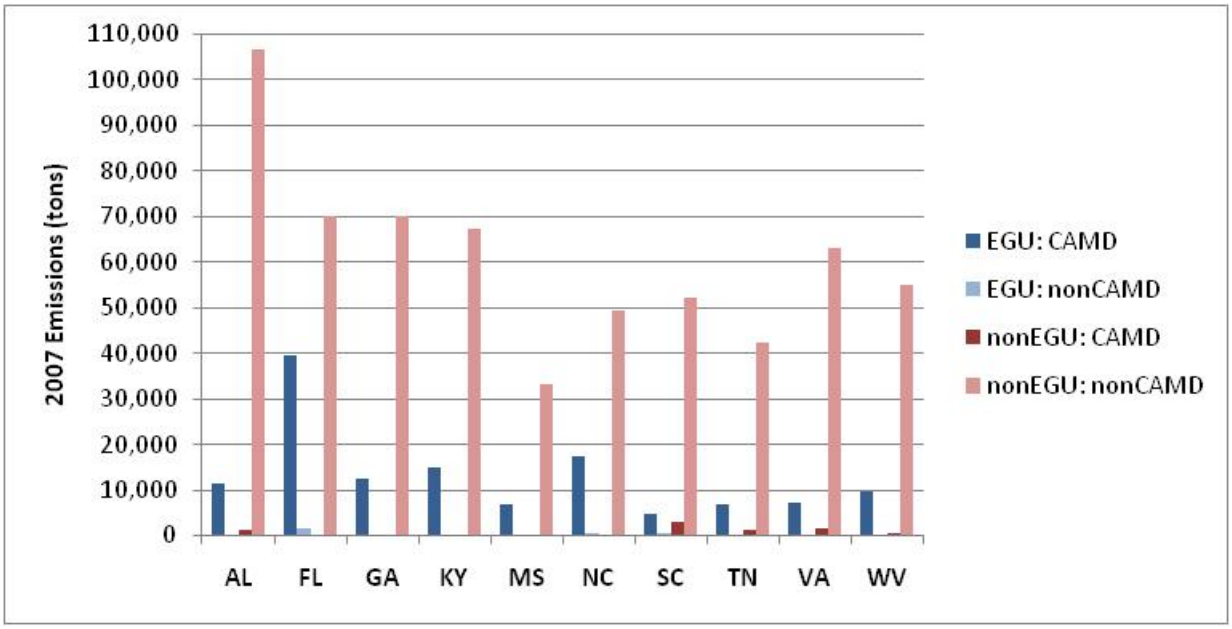


Exhibit 9 – 2002 and 2007 Point Source NH_3 Emissions by State (tons/year)

STATE	2002	2007	Change
Alabama	2,200	2,191	0%
Florida	1,657	1,661	0%
Georgia	3,697	6,046	64%
Kentucky	1,000	113	-89%
Mississippi	1,359	1,640	21%
North Carolina	1,234	1,707	38%
South Carolina	1,553	1,125	-28%
Tennessee	1,817	1,429	-21%
Virginia	3,230	1,830	-43%
West Virginia	453	366	-19%
SEMAP	**18,200**	**18,107**	**-1%**

Exhibit 10 – 2007 Point Source NH_3 Emissions by Category (tons/year)

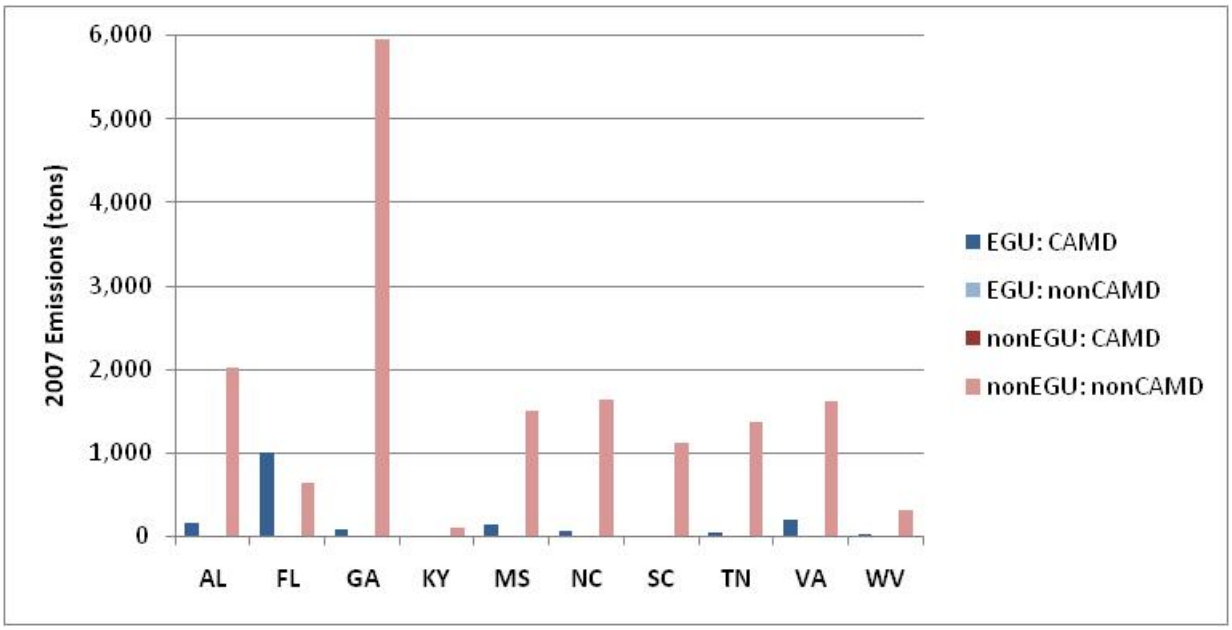


Exhibit 11 – 2002 and 2007 Point Source NOx Emissions by State (tons/year)

STATE	2002	2007	Change
Alabama	244,348	197,963	-19%
Florida	302,834	237,473	-22%
Georgia	196,767	154,041	-22%
Kentucky	237,209	210,213	-11%
Mississippi	104,661	98,183	-6%
North Carolina	196,782	100,379	-49%
South Carolina	130,394	81,220	-38%
Tennessee	221,652	144,763	-35%
Virginia	147,300	112,938	-23%
West Virginia	277,589	188,629	-32%
SEMAP	**2,059,536**	**1,525,801**	**-26%**

Exhibit 12 – 2007 Point Source NOx Emissions by Category (tons/year)

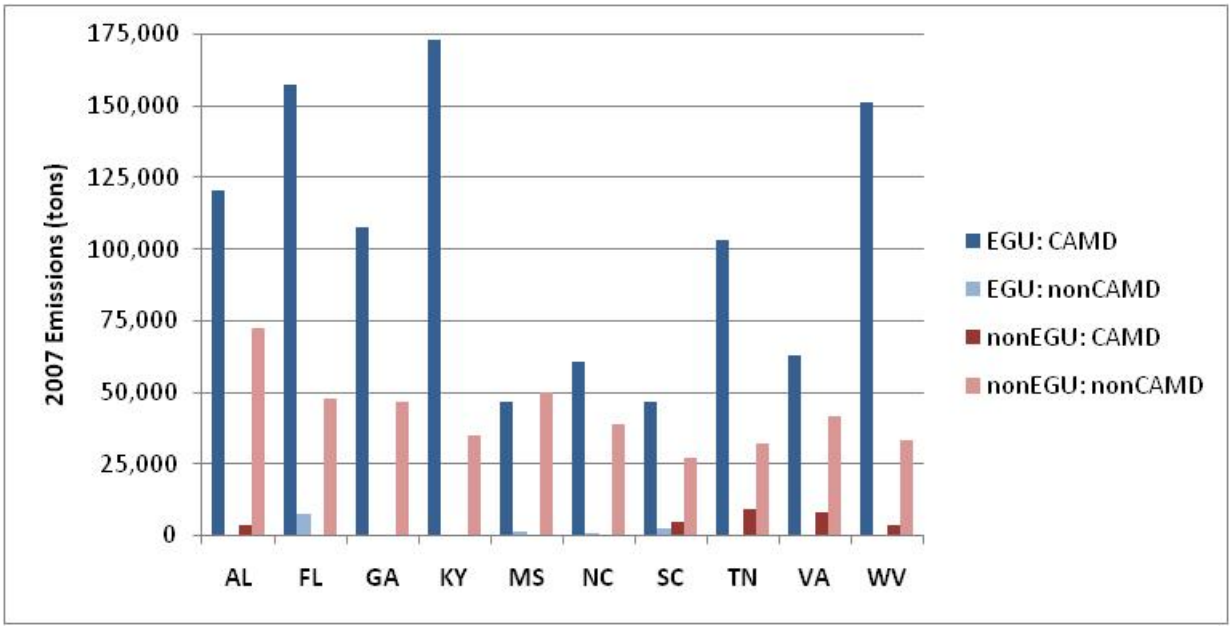


Exhibit 13 – 2002 and 2007 Point Source PM10-PRI Emissions by State (tons/year)

STATE	2002	2007	Change
Alabama	32,886	34,776	6%
Florida	57,243	35,796	-37%
Georgia	32,834	33,214	1%
Kentucky	21,326	30,678	44%
Mississippi	21,106	12,368	-41%
North Carolina	36,592	42,995	17%
South Carolina	35,542	30,605	-14%
Tennessee	49,814	27,874	-44%
Virginia	17,211	19,203	12%
West Virginia	22,076	35,457	61%
SEMAP	**326,630**	**302,966**	**-7%**

Exhibit 14 – 2007 Point Source PM10-PRI Emissions by Category (tons/year)

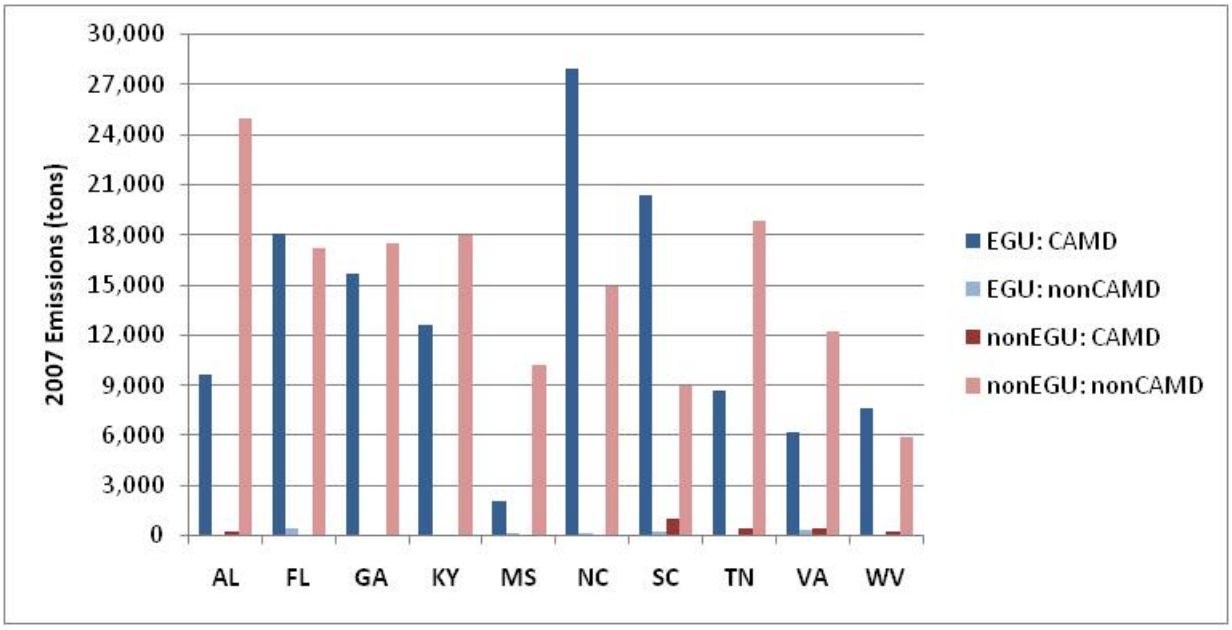


Exhibit 15 – 2002 and 2007 Point Source PM25-PRI Emissions by State (tons/year)

STATE	2002	2007	Change
Alabama	23,291	24,930	7%
Florida	46,148	28,418	-38%
Georgia	22,401	25,059	12%
Kentucky	14,173	21,111	49%
Mississippi	11,044	8,731	-21%
North Carolina	26,998	33,444	24%
South Carolina	27,399	23,493	-14%
Tennessee	39,973	22,144	-45%
Virginia	12,771	14,875	16%
West Virginia	15,523	30,552	97%
SEMAP	**239,721**	**232,756**	**-3%**

Exhibit 16 – 2007 Point Source PM25-PRI Emissions by Category (tons/year)

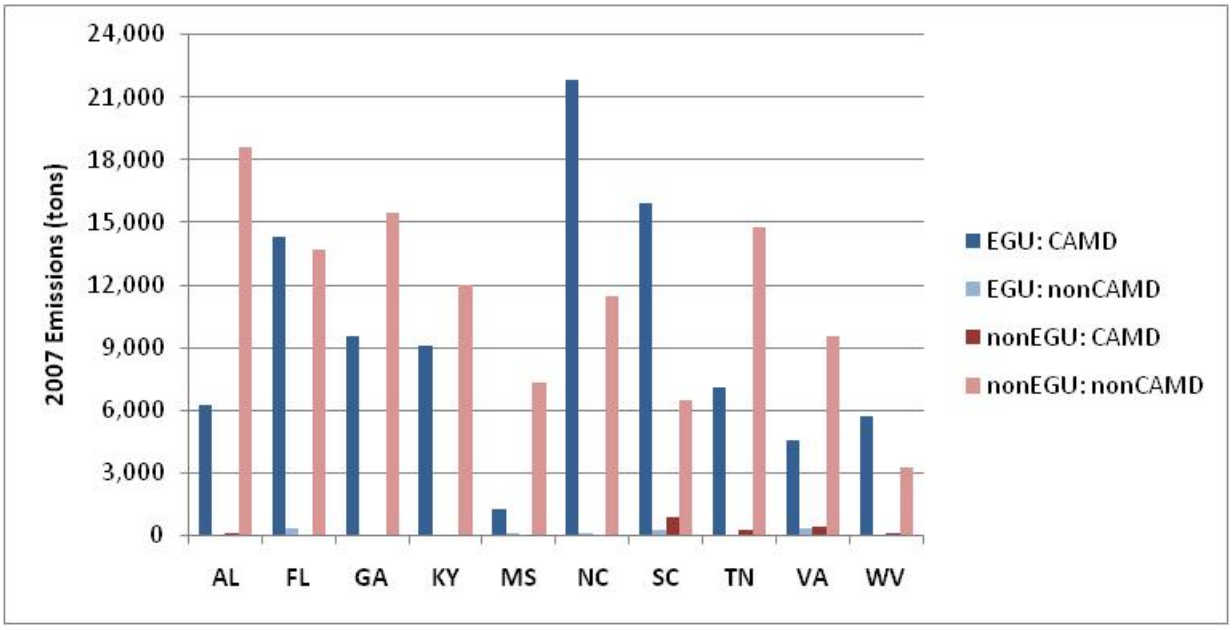


Exhibit 17 – 2002 and 2007 Point Source SO2 Emissions by State (tons/year)

STATE	2002	2007	Change
Alabama	544,309	526,620	-3%
Florida	518,721	379,590	-27%
Georgia	568,731	683,358	20%
Kentucky	518,086	410,414	-21%
Mississippi	103,388	94,978	-8%
North Carolina	522,113	420,438	-19%
South Carolina	259,916	216,125	-17%
Tennessee	413,755	287,668	-30%
Virginia	305,106	243,048	-20%
West Virginia	570,153	428,350	-25%
SEMAP	**4,324,278**	**3,690,588**	**-15%**

Exhibit 18 – 2007 Point Source SO2 Emissions by Category (tons/year)

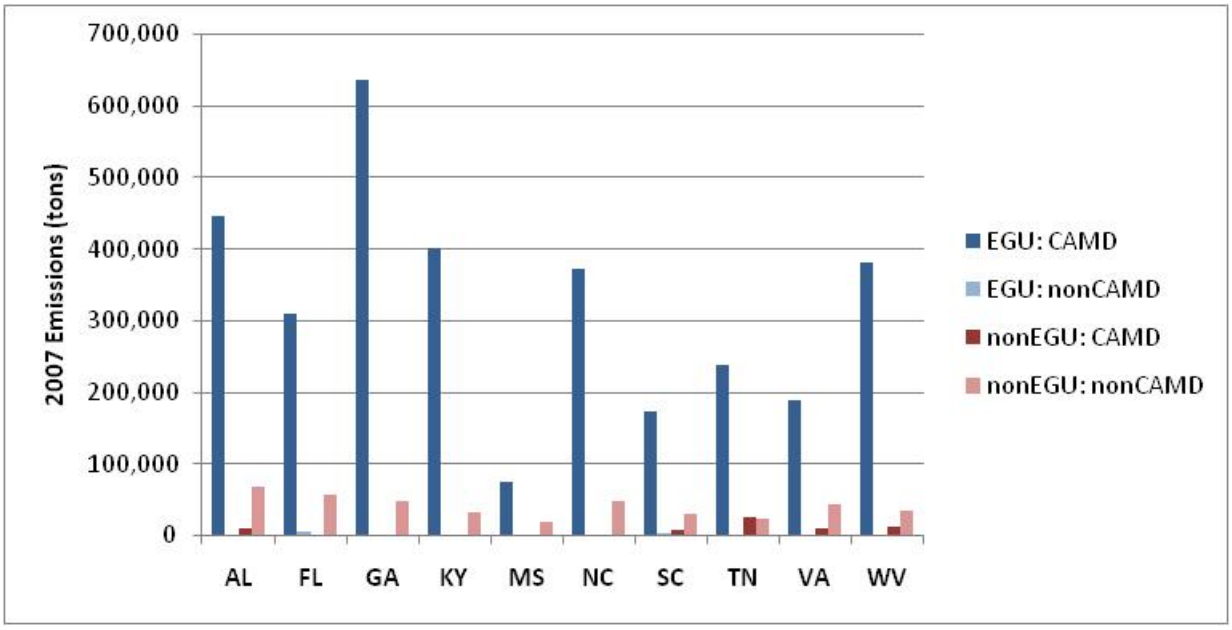
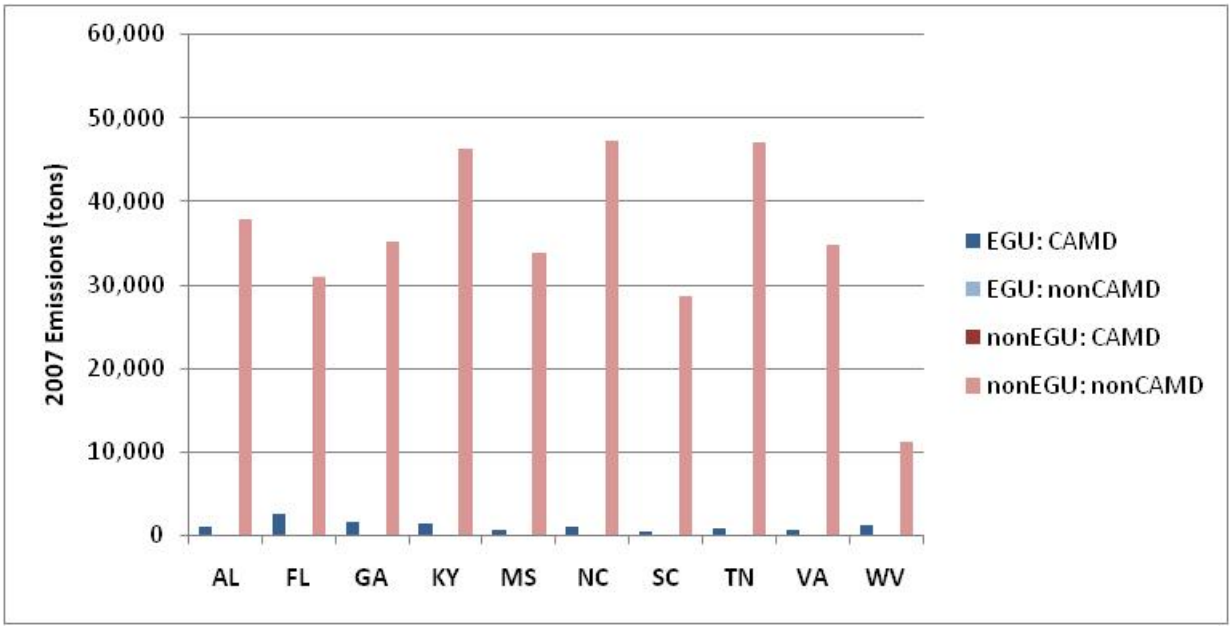


Exhibit 19 – 2002 and 2007 Point Source VOC Emissions by State (tons/year)

STATE	2002	2007	Change
Alabama	49,332	38,877	-21%
Florida	40,995	33,683	-18%
Georgia	34,952	36,717	5%
Kentucky	46,321	47,679	3%
Mississippi	43,852	34,587	-21%
North Carolina	62,170	48,349	-22%
South Carolina	38,927	29,281	-25%
Tennessee	85,254	48,103	-44%
Virginia	43,906	35,618	-19%
West Virginia	15,775	12,503	-21%
SEMAP	**461,484**	**365,397**	**-21%**

Exhibit 20 – 2007 Point Source VOC Emissions by Category (tons/year)



1.11 DATA FILES

These files are accessible on the MACTEC ftp site in the following location:

Address: ftp.mactec.com
Login ID: externalclient
Password: sen382
Folder: /Outgoing/SEMAP Point V_1_10

NIF 3.0 ACCESS Database with the 8 NIF tables:
SEMAP 2007 Point NIF V_1_10a.zip

Annual point source files in SMOKE ORL format are being prepared under SEMAP's emission modeling contract.

1.12 REFERENCES

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Appendix A: Facilities with Updated Latitude and Longitude Information

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
01007	0001	Alabama Pigments Co	001	-87.127059	33.226081
01007	0001	Alabama Pigments Co	002	-87.127059	33.226081
01007	0001	Alabama Pigments Co	888	-87.127059	33.226081
01015	0088	SOUTHERN HERITAGE CASKET COMPANY, INC.	001	-85.930892	33.593406
01043	0010	American Proteins Inc	002	-86.809567	33.956023
01043	0010	American Proteins Inc	005	-86.809567	33.956023
01043	0010	American Proteins Inc	006	-86.809567	33.956023
01043	0010	American Proteins Inc	007	-86.809567	33.956023
01043	0010	American Proteins Inc	010	-86.809567	33.956023
01043	0010	American Proteins Inc	011	-86.809567	33.956023
01043	0010	American Proteins Inc	888	-86.809567	33.956023
01073	010730078	CLUTCH & BRAKE SPECIALTY CO., INC.	002	-86.786425	33.514213
01073	010730167	ERGON TERMINALLING, INC.	004	-87.107993	33.560359
01073	010730339	SHELBY CONCRETE, INC.	001	-86.813181	33.367404
01073	010730503	LAFARGE BUILDING MATERIALS, BIRMINGHAM PLANT	001	-86.813247	33.571241
01093	0014	Glen Allen Rail Inc	002	-87.748537	33.915734
01093	0014	Glen Allen Rail Inc	888	-87.748537	33.915734
01093	0023	King Kutter Inc	001	-87.820364	33.921496
01095	0046	Jackson Paving & Construction Company	888	-86.232929	34.460514
01097	0010	ExxonMobil Production Company	001	-88.052203	30.25394
01097	0010	ExxonMobil Production Company	002	-88.052203	30.25394
01097	0010	ExxonMobil Production Company	003	-88.052203	30.25394
01097	0010	ExxonMobil Production Company	004	-88.052203	30.25394
01097	0010	ExxonMobil Production Company	005	-88.052203	30.25394
01097	0010	ExxonMobil Production Company	006	-88.052203	30.25394
01097	0010	ExxonMobil Production Company	007	-88.052203	30.25394
01097	0010	ExxonMobil Production Company	008	-88.052203	30.25394
01097	0010	ExxonMobil Production Company	010	-88.052203	30.25394
01097	0010	ExxonMobil Production Company	011	-88.052203	30.25394
01097	0010	ExxonMobil Production Company	012	-88.052203	30.25394

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
01097	0010	ExxonMobil Production Company	013	-88.052203	30.25394
01097	0010	ExxonMobil Production Company	015	-88.052203	30.25394
01097	0010	ExxonMobil Production Company	016	-88.052203	30.25394
01097	0010	ExxonMobil Production Company	017	-88.052203	30.25394
01097	0010	ExxonMobil Production Company	018	-88.052203	30.25394
01097	0010	ExxonMobil Production Company	019	-88.052203	30.25394
01097	0010	ExxonMobil Production Company	020	-88.052203	30.25394
01097	0010	ExxonMobil Production Company	021	-88.052203	30.25394
01097	0010	ExxonMobil Production Company	022	-88.052203	30.25394
01097	0010	ExxonMobil Production Company	023	-88.052203	30.25394
01097	0010	ExxonMobil Production Company	888	-88.052203	30.25394
01097	0012	ExxonMobil Production Company	001	-88.044764	30.295978
01097	0012	ExxonMobil Production Company	002	-88.044764	30.295978
01097	0012	ExxonMobil Production Company	003	-88.044764	30.295978
01097	0012	ExxonMobil Production Company	004	-88.044764	30.295978
01097	0012	ExxonMobil Production Company	005	-88.044764	30.295978
01097	0012	ExxonMobil Production Company	006	-88.044764	30.295978
01097	0012	ExxonMobil Production Company	007	-88.044764	30.295978
01097	0012	ExxonMobil Production Company	008	-88.044764	30.295978
01097	0012	ExxonMobil Production Company	009	-88.044764	30.295978
01097	0013	ExxonMobil Production Company	001	-88.124853	30.19192
01097	0013	ExxonMobil Production Company	002	-88.124853	30.19192
01097	0013	ExxonMobil Production Company	003	-88.124853	30.19192
01097	0013	ExxonMobil Production Company	004	-88.124853	30.19192
01097	0013	ExxonMobil Production Company	005	-88.124853	30.19192
01097	0013	ExxonMobil Production Company	006	-88.124853	30.19192
01097	0013	ExxonMobil Production Company	007	-88.124853	30.19192
01097	0013	ExxonMobil Production Company	009	-88.124853	30.19192
01097	0013	ExxonMobil Production Company	888	-88.124853	30.19192
01097	0016	Shell Exploration & Production Company	001	-88.077323	30.178614

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
01097	0016	Shell Exploration & Production Company	002	-88.077323	30.178614
01097	0016	Shell Exploration & Production Company	004	-88.077323	30.178614
01097	0016	Shell Exploration & Production Company	005	-88.077323	30.178614
01097	0016	Shell Exploration & Production Company	006	-88.077323	30.178614
01097	0016	Shell Exploration & Production Company	007	-88.077323	30.178614
01097	0025	ExxonMobil Production Company	001	-87.952544	30.18879
01097	0025	ExxonMobil Production Company	002	-87.952544	30.18879
01097	0025	ExxonMobil Production Company	003	-87.952544	30.18879
01097	0025	ExxonMobil Production Company	004	-87.952544	30.18879
01097	0025	ExxonMobil Production Company	005	-87.952544	30.18879
01097	0025	ExxonMobil Production Company	006	-87.952544	30.18879
01097	0025	ExxonMobil Production Company	007	-87.952544	30.18879
01097	0025	ExxonMobil Production Company	888	-87.952544	30.18879
01097	0038	Mobile Abrasives	003	-88.031736	30.688664
01097	0038	Mobile Abrasives	888	-88.031736	30.688664
01097	2002	Armstrong World Industries Inc	001	-88.05826	30.66557
01097	2002	Armstrong World Industries Inc	002	-88.05826	30.66557
01097	2002	Armstrong World Industries Inc	003	-88.05826	30.66557
01097	2002	Armstrong World Industries Inc	004	-88.05826	30.66557
01097	2002	Armstrong World Industries Inc	005	-88.05826	30.66557
01097	2002	Armstrong World Industries Inc	006	-88.05826	30.66557
01097	2002	Armstrong World Industries Inc	007	-88.05826	30.66557
01097	2002	Armstrong World Industries Inc	008	-88.05826	30.66557
01097	2002	Armstrong World Industries Inc	009	-88.05826	30.66557
01097	2002	Armstrong World Industries Inc	010	-88.05826	30.66557
01097	2002	Armstrong World Industries Inc	011	-88.05826	30.66557
01097	2002	Armstrong World Industries Inc	013	-88.05826	30.66557
01097	2002	Armstrong World Industries Inc	014	-88.05826	30.66557
01097	4019	MoBay Storage Hub, Inc	001	-88.225535	30.253211
01097	4019	MoBay Storage Hub, Inc	002	-88.225535	30.253211

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
01097	4019	MoBay Storage Hub, Inc	003	-88.225535	30.253211
01097	6002	Bender Shipbuilding & Repair Co Inc	888	-88.0436	30.684538
01097	6007	Alabama Shipyards Inc	001	-88.032594	30.677135
01099	S011	Owens Lumber Company	001	-86.981586	31.795439
01113	0018	Boral Bricks	001	-84.998287	32.458431
01113	0018	Boral Bricks	002	-84.998287	32.458431
01113	0018	Boral Bricks	003	-84.998287	32.458431
01113	0018	Boral Bricks	005	-84.998287	32.458431
01113	0018	Boral Bricks	006	-84.998287	32.458431
01113	0018	Boral Bricks	007	-84.998287	32.458431
01113	0018	Boral Bricks	888	-84.998287	32.458431
01117	0005	Alabama Power Company	001	-86.459897	33.242746
01117	0005	Alabama Power Company	002	-86.45758	33.244561
01117	0005	Alabama Power Company	004	-86.45758	33.244561
01117	0005	Alabama Power Company	888	-86.459897	33.242746
01123	0015	Stone's Throw Landfill	888	-85.831579	32.511095
01127	0015	S&M Paving Co.	001	-87.609504	33.958754
12009	0090051	NASA	69	-80.65189	28.529149
12031	0310010	BAPTIST MEDICAL CENTER	14	-81.663746	30.31471
12031	0310213	U S NAVAL STATION MAYPORT	33	-81.406396	30.390052
12031	0310213	U S NAVAL STATION MAYPORT	34	-81.417539	30.389417
12031	0310213	U S NAVAL STATION MAYPORT	37	-81.417539	30.389417
12031	0310325	TRANSFLO TERMINAL SERVICES, INC.	1	-81.720055	30.326385
12045	0450002	ARIZONA CHEMICAL COMPANY, LLC	13	-85.308333	29.818056
12045	0450002	ARIZONA CHEMICAL COMPANY, LLC	15	-85.308333	29.818056
12045	0450002	ARIZONA CHEMICAL COMPANY, LLC	16	-85.308333	29.818056
12045	0450002	ARIZONA CHEMICAL COMPANY, LLC	17	-85.308333	29.818056
12045	0450002	ARIZONA CHEMICAL COMPANY, LLC	5	-85.308333	29.818056
12045	0450002	ARIZONA CHEMICAL COMPANY, LLC	6	-85.308333	29.818056
12057	0570094	MOSAIC FERTILIZER, LLC	100	-82.40729	27.80519

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
12057	0570252	CEMEX	2	-82.432574	27.901451
12057	0570252	CEMEX	4	-82.432574	27.901451
12069	0694822	MIDDLESEX ASPHALT, L.L.C.	2	-81.903848	28.832607
12099	0990350	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	1	-80.445778	26.472064
12103	1030011	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	5	-82.601667	27.861389
12103	1030011	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	6	-82.601667	27.861389
12103	1030011	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	7	-82.601667	27.861389
12103	1030011	FLORIDA POWER CORPDBAPROGRESS ENERGY FLA	8	-82.601667	27.861389
12109	1090022	LUHRS CORPORATION	1	-81.321944	29.879167
12113	1130040	ODOM FIBERGLASS, INCORPORATED	1	-87.087204	30.544281
13015	01500011	Ga Power Company - Plant Bowen	S1	-84.9192	34.1256
13015	01500011	Ga Power Company - Plant Bowen	S2	-84.9192	34.1256
13015	01500011	Ga Power Company - Plant Bowen	S3	-84.9192	34.1256
13015	01500011	Ga Power Company - Plant Bowen	S4	-84.9192	34.1256
13015	01500011	Ga Power Company - Plant Bowen	SCT1	-84.9192	34.1256
13015	01500011	Ga Power Company - Plant Bowen	SCT2	-84.9192	34.1256
13039	03900003	Naval Submarine Base	PT01	-81.55306	30.8001
13039	03900003	Naval Submarine Base	PT02	-81.55306	30.8001
13039	03900003	Naval Submarine Base	PT03	-81.55306	30.8001
13039	03900003	Naval Submarine Base	PT04	-81.55306	30.8001
13039	03900003	Naval Submarine Base	PT05	-81.55306	30.8001
13039	03900003	Naval Submarine Base	PT06	-81.55306	30.8001
13039	03900003	Naval Submarine Base	PT07	-81.55306	30.8001
13039	03900003	Naval Submarine Base	PT08	-81.55306	30.8001
13039	03900003	Naval Submarine Base	PT09	-81.55306	30.8001
13039	03900003	Naval Submarine Base	PT10	-81.55306	30.8001
13039	03900003	Naval Submarine Base	PT11	-81.55306	30.8001
13039	03900003	Naval Submarine Base	PT12	-81.55306	30.8001
13039	03900003	Naval Submarine Base	PT13	-81.55306	30.8001
13039	03900003	Naval Submarine Base	PT14	-81.55306	30.8001

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
13039	03900003	Naval Submarine Base	PT15	-81.55306	30.8001
13039	03900003	Naval Submarine Base	PT16	-81.55306	30.8001
13045	04500052	Southwire Company Carrollton Utility Products Plant	F722	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	FAN11	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	FAN12	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	FAN13	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	FAN15	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	FAN16	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	FAN17	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	FAN18	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	FAN2	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	FAN3	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	FAN4	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	FAN5	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	FAN6	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	FAN7	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	S205	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	S280	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	S281	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	S296	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	S297	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	S501	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	S504	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	S507	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	S510	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	S513	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	S516	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	S721	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	S745	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	S760	-85.062268	33.566447

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
13045	04500052	Southwire Company Carrollton Utility Products Plant	S761	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	SCS12	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	SCS13	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	SCS14	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	SCS5	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	SCS6	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	SCS7	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	SCS8	-85.062268	33.566447
13045	04500052	Southwire Company Carrollton Utility Products Plant	SCS9	-85.062268	33.566447
13049	04900004	West Fraser - Folkston Lumber Mill	FOB1	-82.0118	30.84937
13049	04900004	West Fraser - Folkston Lumber Mill	FOB2	-82.0118	30.84937
13051	05100076	Colonial Terminals, Inc.	SB01	-81.112109	32.094117
13051	05100076	Colonial Terminals, Inc.	SB02	-81.112109	32.094117
13051	05100076	Colonial Terminals, Inc.	SB03	-81.112109	32.094117
13051	05100076	Colonial Terminals, Inc.	SD01	-81.112109	32.094117
13051	05100076	Colonial Terminals, Inc.	SD02	-81.112109	32.094117
13051	05100076	Colonial Terminals, Inc.	SD03	-81.112109	32.094117
13051	05100076	Colonial Terminals, Inc.	SD04	-81.112109	32.094117
13051	05100076	Colonial Terminals, Inc.	SD22	-81.112109	32.094117
13051	05100076	Colonial Terminals, Inc.	SD91	-81.112109	32.094117
13051	05100076	Colonial Terminals, Inc.	SM01	-81.112109	32.094117
13051	05100076	Colonial Terminals, Inc.	SR21	-81.112109	32.094117
13051	05100076	Colonial Terminals, Inc.	SR22	-81.112109	32.094117
13051	05100076	Colonial Terminals, Inc.	ST01	-81.112109	32.094117
13051	05100076	Colonial Terminals, Inc.	ST02	-81.112109	32.094117
13051	05100076	Colonial Terminals, Inc.	ST03	-81.112109	32.094117
13051	05100076	Colonial Terminals, Inc.	ST04	-81.112109	32.094117
13051	05100076	Colonial Terminals, Inc.	ST05	-81.112109	32.094117
13051	05100076	Colonial Terminals, Inc.	ST06	-81.112109	32.094117
13051	05100076	Colonial Terminals, Inc.	ST12	-81.112109	32.094117

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
13051	05100076	Colonial Terminals, Inc.	ST13	-81.112109	32.094117
13051	05100076	Colonial Terminals, Inc.	SVR4	-81.112109	32.094117
13051	05100076	Colonial Terminals, Inc.	SVR9	-81.112109	32.094117
13051	05100148	ARIZONA CHEMICAL CORP.	S1	-81.12262	32.090803
13051	05100148	ARIZONA CHEMICAL CORP.	S10	-81.12262	32.090803
13051	05100148	ARIZONA CHEMICAL CORP.	S11	-81.12262	32.090803
13051	05100148	ARIZONA CHEMICAL CORP.	S12	-81.12262	32.090803
13051	05100148	ARIZONA CHEMICAL CORP.	S13	-81.12262	32.090803
13051	05100148	ARIZONA CHEMICAL CORP.	S14	-81.12262	32.090803
13051	05100148	ARIZONA CHEMICAL CORP.	S2	-81.12262	32.090803
13051	05100148	ARIZONA CHEMICAL CORP.	S3	-81.12262	32.090803
13051	05100148	ARIZONA CHEMICAL CORP.	S4	-81.12262	32.090803
13051	05100148	ARIZONA CHEMICAL CORP.	S5	-81.12262	32.090803
13051	05100148	ARIZONA CHEMICAL CORP.	S6	-81.12262	32.090803
13051	05100148	ARIZONA CHEMICAL CORP.	S7	-81.12262	32.090803
13051	05100148	ARIZONA CHEMICAL CORP.	S8	-81.12262	32.090803
13051	05100148	ARIZONA CHEMICAL CORP.	S9	-81.12262	32.090803
13051	05100152	Savannah Resource Recovery (Montaney)	ST01	-81.02791	32.07916
13051	05100152	Savannah Resource Recovery (Montaney)	ST02	-81.02791	32.07916
13063	06300059	Delta Air Lines Inc - Atlanta Station	FUG	-84.4139	33.6433
13063	06300059	Delta Air Lines Inc - Atlanta Station	S1	-84.4139	33.6433
13063	06300059	Delta Air Lines Inc - Atlanta Station	S2	-84.4139	33.6433
13063	06300059	Delta Air Lines Inc - Atlanta Station	S3	-84.4139	33.6433
13065	06500005	Bway Manufacturing Inc	S0	-82.77381	31.02907
13065	06500005	Bway Manufacturing Inc	S1	-82.77381	31.02907
13065	06500005	Bway Manufacturing Inc	S13	-82.77381	31.02907
13065	06500005	Bway Manufacturing Inc	S15	-82.77381	31.02907
13065	06500005	Bway Manufacturing Inc	S16	-82.77381	31.02907
13065	06500005	Bway Manufacturing Inc	S2	-82.77381	31.02907
13065	06500005	Bway Manufacturing Inc	S20	-82.77381	31.02907

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
13065	06500005	Bway Manufacturing Inc	S3	-82.77381	31.02907
13065	06500005	Bway Manufacturing Inc	S9	-82.77381	31.02907
13067	06700032	Marathon Petroleum Company LLC - Powder Springs Terminal	FUG	-84.63048	33.86302
13067	06700032	Marathon Petroleum Company LLC - Powder Springs Terminal	VCS	-84.63048	33.86302
13073	07300003	Quebecor World Kri Inc.	FUG	-82.11791	33.54336
13073	07300003	Quebecor World Kri Inc.	S1	-82.11791	33.54336
13073	07300003	Quebecor World Kri Inc.	S10	-82.11791	33.54336
13073	07300003	Quebecor World Kri Inc.	S11	-82.11791	33.54336
13073	07300003	Quebecor World Kri Inc.	S12	-82.11791	33.54336
13081	08100054	Norbord Georgia Inc	S001	-83.80222	31.96606
13081	08100054	Norbord Georgia Inc	S003	-83.80222	31.96606
13081	08100054	Norbord Georgia Inc	S004	-83.80222	31.96606
13081	08100054	Norbord Georgia Inc	S010	-83.80222	31.96606
13081	08100054	Norbord Georgia Inc	S011	-83.80222	31.96606
13081	08100054	Norbord Georgia Inc	S012	-83.80222	31.96606
13081	08100054	Norbord Georgia Inc	S013	-83.80222	31.96606
13081	08100054	Norbord Georgia Inc	S063	-83.80222	31.96606
13089	08900085	Magellan Terminal Holdings, L.P. - Doraville I Terminal	FUG	-84.269934	33.91519
13089	08900085	Magellan Terminal Holdings, L.P. - Doraville I Terminal	S1	-84.269934	33.91519
13089	08900128	Transmontaigne Terminaling Inc	CGLK	-84.273961	33.916841
13089	08900128	Transmontaigne Terminaling Inc	FUG	-84.273961	33.916841
13089	08900128	Transmontaigne Terminaling Inc	ST8501	-84.273961	33.916841
13089	08900128	Transmontaigne Terminaling Inc	ST8502	-84.273961	33.916841
13089	08900128	Transmontaigne Terminaling Inc	ST8504	-84.273961	33.916841
13089	08900128	Transmontaigne Terminaling Inc	ST8505	-84.273961	33.916841
13089	08900128	Transmontaigne Terminaling Inc	ST8506	-84.273961	33.916841
13089	08900128	Transmontaigne Terminaling Inc	ST8507	-84.273961	33.916841
13089	08900128	Transmontaigne Terminaling Inc	ST8509	-84.273961	33.916841
13089	08900128	Transmontaigne Terminaling Inc	ST8510	-84.273961	33.916841
13089	08900128	Transmontaigne Terminaling Inc	ST8515	-84.273961	33.916841

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
13089	08900128	Transmontaigne Terminaling Inc	ST8516	-84.273961	33.916841
13089	08900128	Transmontaigne Terminaling Inc	STLOAD	-84.273961	33.916841
13089	08900128	Transmontaigne Terminaling Inc	STVCU	-84.273961	33.916841
13089	08900128	Transmontaigne Terminaling Inc	STVRU	-84.273961	33.916841
13095	09500010	MillerCoors LLC	F036	-84.08805	31.5933
13095	09500010	MillerCoors LLC	S001	-84.08805	31.5933
13095	09500010	MillerCoors LLC	S003	-84.08805	31.5933
13095	09500010	MillerCoors LLC	S034	-84.08805	31.5933
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	FUG	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	INSIG	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S1	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S10	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S11	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S12	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S13	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S14	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S15	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S16	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S17	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S18	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S19	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S2	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S20	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S21	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S22	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S23	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S24	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S25	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S26	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S27	-85.095474	31.167343

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S28	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S29	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S3	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S5	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S6	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S7	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S8	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	S9	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	VSTACK	-85.095474	31.167343
13099	09900001	Georgia-Pacific Corp Cedar Springs Operation	WTS	-85.095474	31.167343
13103	10300007	Georgia-Pacific Consumer Products Lp (Savannah River Mill)	FUG	-81.20178	32.33113
13103	10300007	Georgia-Pacific Consumer Products Lp (Savannah River Mill)	S1	-81.20178	32.33113
13103	10300007	Georgia-Pacific Consumer Products Lp (Savannah River Mill)	S10	-81.20178	32.33113
13103	10300007	Georgia-Pacific Consumer Products Lp (Savannah River Mill)	S11	-81.20178	32.33113
13103	10300007	Georgia-Pacific Consumer Products Lp (Savannah River Mill)	S12	-81.20178	32.33113
13103	10300007	Georgia-Pacific Consumer Products Lp (Savannah River Mill)	S2	-81.20178	32.33113
13103	10300007	Georgia-Pacific Consumer Products Lp (Savannah River Mill)	S3	-81.20178	32.33113
13103	10300007	Georgia-Pacific Consumer Products Lp (Savannah River Mill)	S4	-81.20178	32.33113
13103	10300007	Georgia-Pacific Consumer Products Lp (Savannah River Mill)	S6	-81.20178	32.33113
13103	10300007	Georgia-Pacific Consumer Products Lp (Savannah River Mill)	S8	-81.20178	32.33113
13103	10300007	Georgia-Pacific Consumer Products Lp (Savannah River Mill)	S9	-81.20178	32.33113
13115	11500077	Metal Container Corporation	28	-85.0991	34.32541
13115	11500077	Metal Container Corporation	30	-85.0991	34.32541
13115	11500077	Metal Container Corporation	32	-85.0991	34.32541
13115	11500077	Metal Container Corporation	37	-85.0991	34.32541
13115	11500077	Metal Container Corporation	44	-85.0991	34.32541
13115	11500077	Metal Container Corporation	61	-85.0991	34.32541
13115	11500077	Metal Container Corporation	FUG	-85.0991	34.32541
13115	11500077	Metal Container Corporation	FUG2	-85.0991	34.32541
13121	12100807	Delta Airlines - General Office Facilities	S1	-84.423194	33.656343

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
13121	12100807	Delta Airlines - General Office Facilities	S2	-84.423194	33.656343
13121	12100807	Delta Airlines - General Office Facilities	S3	-84.423194	33.656343
13121	12100807	Delta Airlines - General Office Facilities	S4	-84.423194	33.656343
13125	12500001	Thiele Kaolin Co Reedy Creek Div	1	-82.44967	33.26478
13125	12500001	Thiele Kaolin Co Reedy Creek Div	16	-82.44967	33.26478
13125	12500001	Thiele Kaolin Co Reedy Creek Div	18	-82.44967	33.26478
13125	12500001	Thiele Kaolin Co Reedy Creek Div	2	-82.44967	33.26478
13125	12500001	Thiele Kaolin Co Reedy Creek Div	21	-82.44967	33.26478
13125	12500001	Thiele Kaolin Co Reedy Creek Div	22	-82.44967	33.26478
13125	12500001	Thiele Kaolin Co Reedy Creek Div	23	-82.44967	33.26478
13125	12500001	Thiele Kaolin Co Reedy Creek Div	27	-82.44967	33.26478
13125	12500001	Thiele Kaolin Co Reedy Creek Div	29	-82.44967	33.26478
13125	12500001	Thiele Kaolin Co Reedy Creek Div	35	-82.44967	33.26478
13125	12500001	Thiele Kaolin Co Reedy Creek Div	4	-82.44967	33.26478
13127	12700002	Hercules Inc	EAS1	-81.48002	31.16485
13127	12700002	Hercules Inc	EAS3	-81.48002	31.16485
13127	12700002	Hercules Inc	EAS4	-81.48002	31.16485
13127	12700002	Hercules Inc	EAS5	-81.48002	31.16485
13127	12700002	Hercules Inc	EBS1	-81.48002	31.16485
13127	12700002	Hercules Inc	FUG	-81.48002	31.16485
13127	12700002	Hercules Inc	HRS4	-81.48002	31.16485
13127	12700002	Hercules Inc	HRS7	-81.48002	31.16485
13127	12700002	Hercules Inc	LR02	-81.48002	31.16485
13127	12700002	Hercules Inc	LRS1	-81.48002	31.16485
13127	12700002	Hercules Inc	PAS1	-81.48002	31.16485
13127	12700002	Hercules Inc	PS09	-81.48002	31.16485
13127	12700002	Hercules Inc	PS10	-81.48002	31.16485
13127	12700002	Hercules Inc	PXS1	-81.48002	31.16485
13127	12700002	Hercules Inc	RS1	-81.48002	31.16485
13127	12700002	Hercules Inc	SAS4	-81.48002	31.16485

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
13127	12700002	Hercules Inc	SAS5	-81.48002	31.16485
13127	12700002	Hercules Inc	SC40	-81.48002	31.16485
13127	12700002	Hercules Inc	SP06	-81.48002	31.16485
13127	12700002	Hercules Inc	SPS1	-81.48002	31.16485
13127	12700002	Hercules Inc	TR08	-81.48002	31.16485
13127	12700002	Hercules Inc	TRS3	-81.48002	31.16485
13127	12700002	Hercules Inc	VS03	-81.48002	31.16485
13127	12700002	Hercules Inc	VSTACK	-81.48002	31.16485
13127	12700027	Georgia-Pacific Corporation	PS1	-81.54538	31.27487
13127	12700027	Georgia-Pacific Corporation	PS2	-81.54538	31.27487
13127	12700027	Georgia-Pacific Corporation	PS3	-81.54538	31.27487
13127	12700027	Georgia-Pacific Corporation	S201	-81.54538	31.27487
13127	12700027	Georgia-Pacific Corporation	S202	-81.54538	31.27487
13127	12700028	G-P GYPSUM CORP. - BRUNSWICK PLANT	C201	-81.48849	31.12727
13127	12700028	G-P GYPSUM CORP. - BRUNSWICK PLANT	C301	-81.48849	31.12727
13127	12700028	G-P GYPSUM CORP. - BRUNSWICK PLANT	C401	-81.48849	31.12727
13127	12700028	G-P GYPSUM CORP. - BRUNSWICK PLANT	C402	-81.48849	31.12727
13127	12700028	G-P GYPSUM CORP. - BRUNSWICK PLANT	CDBH	-81.48849	31.12727
13127	12700028	G-P GYPSUM CORP. - BRUNSWICK PLANT	GYBH	-81.48849	31.12727
13127	12700028	G-P GYPSUM CORP. - BRUNSWICK PLANT	KBU1	-81.48849	31.12727
13127	12700028	G-P GYPSUM CORP. - BRUNSWICK PLANT	KBU2	-81.48849	31.12727
13127	12700028	G-P GYPSUM CORP. - BRUNSWICK PLANT	KBU3	-81.48849	31.12727
13127	12700028	G-P GYPSUM CORP. - BRUNSWICK PLANT	KBU4	-81.48849	31.12727
13127	12700028	G-P GYPSUM CORP. - BRUNSWICK PLANT	KBU5	-81.48849	31.12727
13127	12700028	G-P GYPSUM CORP. - BRUNSWICK PLANT	KBU6	-81.48849	31.12727
13127	12700028	G-P GYPSUM CORP. - BRUNSWICK PLANT	KILN	-81.48849	31.12727
13127	12700028	G-P GYPSUM CORP. - BRUNSWICK PLANT	PLBH	-81.48849	31.12727
13127	12700028	G-P GYPSUM CORP. - BRUNSWICK PLANT	PLOC	-81.48849	31.12727
13127	12700028	G-P GYPSUM CORP. - BRUNSWICK PLANT	RMB1	-81.48849	31.12727
13127	12700028	G-P GYPSUM CORP. - BRUNSWICK PLANT	RMB2	-81.48849	31.12727

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
13127	12700028	G-P GYPSUM CORP. - BRUNSWICK PLANT	RMB3	-81.48849	31.12727
13139	13900075	Indalex America Inc	FUG1	-83.85578	34.25221
13139	13900075	Indalex America Inc	PL1	-83.85578	34.25221
13139	13900075	Indalex America Inc	RTO1	-83.85578	34.25221
13175	17500004	SP Newsprint Company, LLC	CDBS	-82.844169	32.501284
13175	17500004	SP Newsprint Company, LLC	DI1S	-82.844169	32.501284
13175	17500004	SP Newsprint Company, LLC	DI2S	-82.844169	32.501284
13175	17500004	SP Newsprint Company, LLC	FABAS	-82.844169	32.501284
13175	17500004	SP Newsprint Company, LLC	HRSGS	-82.844169	32.501284
13175	17500004	SP Newsprint Company, LLC	LMSS	-82.844169	32.501284
13175	17500004	SP Newsprint Company, LLC	PB1S	-82.844169	32.501284
13175	17500004	SP Newsprint Company, LLC	PB2S	-82.844169	32.501284
13175	17500004	SP Newsprint Company, LLC	PM1S	-82.844169	32.501284
13175	17500004	SP Newsprint Company, LLC	PM2S	-82.844169	32.501284
13175	17500004	SP Newsprint Company, LLC	SSS	-82.844169	32.501284
13175	17500004	SP Newsprint Company, LLC	WWTPS	-82.844169	32.501284
13175	17500035	Gilman Paper Co	KL01	-83.101543	32.5442
13175	17500035	Gilman Paper Co	KL02	-83.101543	32.5442
13175	17500035	Gilman Paper Co	KL03	-83.101543	32.5442
13213	21300034	Kgen Murray 1 & 2 LLC	AUXB1	-84.918236	34.70916
13213	21300034	Kgen Murray 1 & 2 LLC	AUXB2	-84.918236	34.70916
13213	21300034	Kgen Murray 1 & 2 LLC	CT1	-84.918236	34.70916
13213	21300034	Kgen Murray 1 & 2 LLC	CT2	-84.918236	34.70916
13213	21300034	Kgen Murray 1 & 2 LLC	CT3	-84.918236	34.70916
13213	21300034	Kgen Murray 1 & 2 LLC	CT4	-84.918236	34.70916
13237	23700010	Rayonier Inc- Eatonton Sawmill	DKF1	-83.36011	33.24159
13237	23700010	Rayonier Inc- Eatonton Sawmill	DKF2	-83.36011	33.24159
13237	23700010	Rayonier Inc- Eatonton Sawmill	PBS1	-83.36011	33.24159
13237	23700010	Rayonier Inc- Eatonton Sawmill	PMF1	-83.36011	33.24159
13237	23700010	Rayonier Inc- Eatonton Sawmill	SM01	-83.36011	33.24159

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
13245	24500003	DSM Chemicals North America, Inc.	FUG	-81.93123	33.44136
13245	24500003	DSM Chemicals North America, Inc.	S002	-81.93123	33.44136
13245	24500003	DSM Chemicals North America, Inc.	S008	-81.93123	33.44136
13245	24500003	DSM Chemicals North America, Inc.	S012	-81.93123	33.44136
13245	24500003	DSM Chemicals North America, Inc.	S014	-81.93123	33.44136
13245	24500003	DSM Chemicals North America, Inc.	S015	-81.93123	33.44136
13245	24500003	DSM Chemicals North America, Inc.	S016	-81.93123	33.44136
13245	24500003	DSM Chemicals North America, Inc.	S017	-81.93123	33.44136
13245	24500003	DSM Chemicals North America, Inc.	S020	-81.93123	33.44136
13245	24500003	DSM Chemicals North America, Inc.	S023	-81.93123	33.44136
13245	24500003	DSM Chemicals North America, Inc.	S029	-81.93123	33.44136
13245	24500003	DSM Chemicals North America, Inc.	S07A	-81.93123	33.44136
13245	24500003	DSM Chemicals North America, Inc.	S18A	-81.93123	33.44136
13245	24500003	DSM Chemicals North America, Inc.	S24A	-81.93123	33.44136
13245	24500023	Occidental Chemical Co	STK1	-81.98882	33.39654
13245	24500023	Occidental Chemical Co	STK2	-81.98882	33.39654
13245	24500068	Procter & Gamble Manufacturing Co	G001	-82.00238	33.39118
13245	24500068	Procter & Gamble Manufacturing Co	G002	-82.00238	33.39118
13245	24500068	Procter & Gamble Manufacturing Co	G003	-82.00238	33.39118
13245	24500068	Procter & Gamble Manufacturing Co	G004	-82.00238	33.39118
13245	24500068	Procter & Gamble Manufacturing Co	P045	-82.00238	33.39118
13245	24500068	Procter & Gamble Manufacturing Co	P057	-82.00238	33.39118
13245	24500068	Procter & Gamble Manufacturing Co	P086	-82.00238	33.39118
13261	26100069	Caravelle Powerboats, Inc.	3901	-84.20472	32.05305
13261	26100069	Caravelle Powerboats, Inc.	3902	-84.20472	32.05305
13261	26100069	Caravelle Powerboats, Inc.	3903	-84.20472	32.05305
13261	26100069	Caravelle Powerboats, Inc.	3904	-84.20472	32.05305
13261	26100069	Caravelle Powerboats, Inc.	3905	-84.20472	32.05305
13261	26100069	Caravelle Powerboats, Inc.	3920	-84.20472	32.05305
13261	26100069	Caravelle Powerboats, Inc.	3921	-84.20472	32.05305

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
13261	26100069	Caravelle Powerboats, Inc.	3990	-84.20472	32.05305
13261	26100069	Caravelle Powerboats, Inc.	ASM	-84.20472	32.05305
13261	26100069	Caravelle Powerboats, Inc.	UPH	-84.20472	32.05305
13269	26900016	Taylor County LFGTE Power Station	S01	-84.38769	32.45232
13269	26900016	Taylor County LFGTE Power Station	S02	-84.38769	32.45232
13269	26900016	Taylor County LFGTE Power Station	S03	-84.38769	32.45232
13269	26900016	Taylor County LFGTE Power Station	S04	-84.38769	32.45232
13275	27500008	Hood Industries, Inc.	B2	-83.98683	30.698056
13275	27500008	Hood Industries, Inc.	B3	-83.98683	30.698056
13275	27500008	Hood Industries, Inc.	B4	-83.98683	30.698056
13275	27500008	Hood Industries, Inc.	DK1	-83.98683	30.698056
13275	27500008	Hood Industries, Inc.	DK2	-83.98683	30.698056
13275	27500008	Hood Industries, Inc.	DK3	-83.98683	30.698056
13275	27500008	Hood Industries, Inc.	FUG	-83.98683	30.698056
13275	27500008	Hood Industries, Inc.	PMC1	-83.98683	30.698056
13275	27500008	Hood Industries, Inc.	PMC2	-83.98683	30.698056
13313	31300084	Shaw Industries Inc. Plant No.: 4	BS02	-84.96639	34.71805
13313	31300084	Shaw Industries Inc. Plant No.: 4	BS03	-84.96639	34.71805
13313	31300084	Shaw Industries Inc. Plant No.: 4	BS04	-84.96639	34.71805
13313	31300084	Shaw Industries Inc. Plant No.: 4	LS02	-84.96639	34.71805
13313	31300084	Shaw Industries Inc. Plant No.: 4	LS03	-84.96639	34.71805
21003	00002	Irving Materials Inc	01--02	-86.187842	36.749467
21003	00002	Irving Materials Inc	02--02	-86.187842	36.749467
21003	00002	Irving Materials Inc	03--02	-86.187842	36.749467
21003	00002	Irving Materials Inc	05--02	-86.187842	36.749467
21003	00002	Irving Materials Inc	06--02	-86.187842	36.749467
21003	00002	Irving Materials Inc	06--03	-86.187842	36.749467
21003	00002	Irving Materials Inc	06--04	-86.187842	36.749467
21003	00002	Irving Materials Inc	07--01	-86.187842	36.749467
21015	00069	Camco Chemical Co	001	-84.6113	38.9744

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21015	00069	Camco Chemical Co	002	-84.6113	38.9744
21015	00069	Camco Chemical Co	004	-84.6113	38.9744
21015	00069	Camco Chemical Co	005	-84.6113	38.9744
21015	00069	Camco Chemical Co	006	-84.6113	38.9744
21015	00069	Camco Chemical Co	007	-84.6113	38.9744
21015	00069	Camco Chemical Co	008	-84.6113	38.9744
21015	00069	Camco Chemical Co	009	-84.6113	38.9744
21015	00069	Camco Chemical Co	010	-84.6113	38.9744
21015	00069	Camco Chemical Co	011	-84.6113	38.9744
21015	00118	Diversified Structural Composites	002	-84.6216	39.0541
21015	00118	Diversified Structural Composites	003	-84.6216	39.0541
21015	00118	Diversified Structural Composites	005	-84.6216	39.0541
21015	00118	Diversified Structural Composites	006	-84.6216	39.0541
21015	00118	Diversified Structural Composites	MP11	-84.6216	39.0541
21015	00156	Coral Graphic Service Inc	001	-84.6173	39.0476
21015	00156	Coral Graphic Service Inc	002	-84.6173	39.0476
21015	00156	Coral Graphic Service Inc	003	-84.6173	39.0476
21015	00156	Coral Graphic Service Inc	004	-84.6173	39.0476
21015	00156	Coral Graphic Service Inc	005	-84.6173	39.0476
21015	00156	Coral Graphic Service Inc	006	-84.6173	39.0476
21015	00156	Coral Graphic Service Inc	007	-84.6173	39.0476
21025	00001	The Wells Group LLC	001	-83.400157	37.563044
21025	00001	The Wells Group LLC	002	-83.400157	37.563044
21025	00001	The Wells Group LLC	003	-83.400157	37.563044
21025	00001	The Wells Group LLC	004	-83.400157	37.563044
21025	00001	The Wells Group LLC	005	-83.400157	37.563044
21025	00001	The Wells Group LLC	006	-83.400157	37.563044
21025	00012	Hinkle Contracting Corp - Jackson Plant	001	-83.400157	37.563044
21025	00012	Hinkle Contracting Corp - Jackson Plant	002	-83.400157	37.563044
21025	00012	Hinkle Contracting Corp - Jackson Plant	003	-83.400157	37.563044

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
21025	00033	Begley Properties LLC	001	-83.418283	37.559043
21025	00033	Begley Properties LLC	002	-83.418283	37.559043
21037	00051	Freeport Mcmoran Resource	001	-84.35136	37.030252
21037	00051	Freeport Mcmoran Resource	002	-84.35136	37.030252
21037	00097	DDA Partnership	001	-84.463611	39.116389
21045	00027	TN Gas Pipeline - Dry Creek Transmission Station	001	-85.1109	37.3447
21045	00027	TN Gas Pipeline - Dry Creek Transmission Station	002	-85.1109	37.3447
21045	00028	Casey Furniture Mfg, Llc	001	-84.94523	37.31977
21045	00028	Casey Furniture Mfg, Llc	002	-84.94523	37.31977
21045	00028	Casey Furniture Mfg, Llc	003	-84.94523	37.31977
21045	00028	Casey Furniture Mfg, Llc	004	-84.94523	37.31977
21045	00028	Casey Furniture Mfg, Llc	005	-84.94523	37.31977
21051	00034	Chas Coal LLC - Red Bird Prep Plant	001	-83.53708	36.96845
21051	00034	Chas Coal LLC - Red Bird Prep Plant	002	-83.53708	36.96845
21051	00034	Chas Coal LLC - Red Bird Prep Plant	003	-83.53708	36.96845
21051	00034	Chas Coal LLC - Red Bird Prep Plant	004	-83.53708	36.96845
21057	00005	Albany Redi-Mix	001	-85.36895	36.786998
21057	00005	Albany Redi-Mix	002	-85.36895	36.786998
21057	00005	Albany Redi-Mix	003	-85.36895	36.786998
21071	00154	Chesapeake Appalachia LLC - Warco Transmission Station	E01	-82.7772	37.54394
21071	00154	Chesapeake Appalachia LLC - Warco Transmission Station	E02	-82.7772	37.54394
21071	00154	Chesapeake Appalachia LLC - Warco Transmission Station	E03A	-82.7772	37.54394
21071	00154	Chesapeake Appalachia LLC - Warco Transmission Station	E03B	-82.7772	37.54394
21071	00158	EQT Gathering LLC - Drift Compressor Station	001	-82.7439	37.4758
21071	00158	EQT Gathering LLC - Drift Compressor Station	002	-82.7439	37.4758
21071	00159	EQT Gathering LLC - Maytown Compressor Station	001	-82.7875	37.5353
21071	00159	EQT Gathering LLC - Maytown Compressor Station	002	-82.7875	37.5353
21073	00079	Rogers Group Inc Portable Crush Plant 3	001	-84.873	38.201
21073	00079	Rogers Group Inc Portable Crush Plant 3	002	-84.873	38.201
21073	00079	Rogers Group Inc Portable Crush Plant 3	003	-84.873	38.201

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
21073	00079	Rogers Group Inc Portable Crush Plant 3	004	-84.873	38.201
21073	00079	Rogers Group Inc Portable Crush Plant 3	005	-84.873	38.201
21073	00079	Rogers Group Inc Portable Crush Plant 3	006	-84.873	38.201
21073	00079	Rogers Group Inc Portable Crush Plant 3	007	-84.873	38.201
21077	00025	Sterling Ventures LLC	01--01	-84.7591	38.83014
21077	00025	Sterling Ventures LLC	01--02	-84.7591	38.83014
21077	00025	Sterling Ventures LLC	03--01	-84.7591	38.83014
21077	00025	Sterling Ventures LLC	05--01	-84.7591	38.83014
21077	00025	Sterling Ventures LLC	05--02	-84.7591	38.83014
21077	00025	Sterling Ventures LLC	05--03	-84.7591	38.83014
21077	00025	Sterling Ventures LLC	07--01	-84.7591	38.83014
21077	00025	Sterling Ventures LLC	17--01	-84.7591	38.83014
21077	00025	Sterling Ventures LLC	18--01	-84.7591	38.83014
21077	00025	Sterling Ventures LLC	25--01	-84.7591	38.83014
21077	00025	Sterling Ventures LLC	26--01	-84.7591	38.83014
21077	00025	Sterling Ventures LLC	27--01	-84.7591	38.83014
21077	00025	Sterling Ventures LLC	28--01	-84.7591	38.83014
21077	00025	Sterling Ventures LLC	28--02	-84.7591	38.83014
21077	00025	Sterling Ventures LLC	29--01	-84.7591	38.83014
21077	00025	Sterling Ventures LLC	29--02	-84.7591	38.83014
21077	00030	IMI South LLC	EP0101	-84.8979	38.7766
21077	00030	IMI South LLC	EP0103	-84.8979	38.7766
21077	00030	IMI South LLC	EP0104	-84.8979	38.7766
21077	00030	IMI South LLC	EP-02	-84.8979	38.7766
21077	00030	IMI South LLC	EP0205	-84.8979	38.7766
21077	00030	IMI South LLC	EP0206	-84.8979	38.7766
21077	00030	IMI South LLC	EP0301	-84.8979	38.7766
21077	00030	IMI South LLC	EP0302	-84.8979	38.7766
21077	00030	IMI South LLC	EP0402	-84.8979	38.7766
21089	00044	Ashland Recovery Inc	001	-82.6117	38.4564

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
21089	00044	Ashland Recovery Inc	002	-82.6117	38.4564
21089	00044	Ashland Recovery Inc	003	-82.6117	38.4564
21089	00044	Ashland Recovery Inc	004	-82.6117	38.4564
21089	00044	Ashland Recovery Inc	005	-82.6117	38.4564
21089	00044	Ashland Recovery Inc	006	-82.6117	38.4564
21089	00044	Ashland Recovery Inc	007	-82.6117	38.4564
21091	00026	L. R. Chapman	(01)	-86.857	37.9005
21091	00026	L. R. Chapman	(02)	-86.857	37.9005
21091	00026	L. R. Chapman	(03)	-86.857	37.9005
21091	00026	L. R. Chapman	(04)	-86.857	37.9005
21091	00026	L. R. Chapman	(05)	-86.857	37.9005
21091	00026	L. R. Chapman	(06)	-86.857	37.9005
21091	00026	L. R. Chapman	(07)	-86.857	37.9005
21091	00026	L. R. Chapman	(08)	-86.857	37.9005
21091	00026	L. R. Chapman	(09)	-86.857	37.9005
21091	00026	L. R. Chapman	(10)	-86.857	37.9005
21091	00026	L. R. Chapman	(11)	-86.857	37.9005
21091	00026	L. R. Chapman	(12)	-86.857	37.9005
21091	00026	L. R. Chapman	(13)	-86.857	37.9005
21091	00026	L. R. Chapman	(14)	-86.857	37.9005
21091	00026	L. R. Chapman	(15)	-86.857	37.9005
21091	00026	L. R. Chapman	(16)	-86.857	37.9005
21091	00026	L. R. Chapman	(17)	-86.857	37.9005
21091	00026	L. R. Chapman	(18)	-86.857	37.9005
21091	00026	L. R. Chapman	(19)	-86.857	37.9005
21091	00026	L. R. Chapman	(20)	-86.857	37.9005
21091	00026	L. R. Chapman	(21)	-86.857	37.9005
21091	00026	L. R. Chapman	(22)	-86.857	37.9005
21091	00026	L. R. Chapman	(23)	-86.857	37.9005
21091	00026	L. R. Chapman	(24)	-86.857	37.9005

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
21091	00026	L. R. Chapman	(25)	-86.857	37.9005
21091	00026	L. R. Chapman	(26)	-86.857	37.9005
21091	00026	L. R. Chapman	(27)	-86.857	37.9005
21091	00026	L. R. Chapman	(28)	-86.857	37.9005
21091	00026	L. R. Chapman	(29)	-86.857	37.9005
21091	00026	L. R. Chapman	(30)	-86.857	37.9005
21091	00026	L. R. Chapman	(31)	-86.857	37.9005
21091	00026	L. R. Chapman	(32)	-86.857	37.9005
21091	00026	L. R. Chapman	(33)	-86.857	37.9005
21091	00026	L. R. Chapman	(34)	-86.857	37.9005
21091	00026	L. R. Chapman	(35)	-86.857	37.9005
21091	00026	L. R. Chapman	(36)	-86.857	37.9005
21091	00026	L. R. Chapman	(37)	-86.857	37.9005
21091	00026	L. R. Chapman	(38)	-86.857	37.9005
21091	00026	L. R. Chapman	(39)	-86.857	37.9005
21091	00026	L. R. Chapman	(40)	-86.857	37.9005
21091	00026	L. R. Chapman	(41)	-86.857	37.9005
21091	00026	L. R. Chapman	(42)	-86.857	37.9005
21091	00026	L. R. Chapman	(43)	-86.857	37.9005
21091	00026	L. R. Chapman	(44)	-86.857	37.9005
21091	00026	L. R. Chapman	(45)	-86.857	37.9005
21091	00026	L. R. Chapman	(46)	-86.857	37.9005
21091	00026	L. R. Chapman	(47)	-86.857	37.9005
21091	00026	L. R. Chapman	(48)	-86.857	37.9005
21091	00026	L. R. Chapman	(49)	-86.857	37.9005
21091	00026	L. R. Chapman	(50)	-86.857	37.9005
21091	00026	L. R. Chapman	(51)	-86.857	37.9005
21091	00026	L. R. Chapman	(52)	-86.857	37.9005
21101	00139	Kentucky 5 Star Energy LLC	FS01	-87.52415	37.6462
21101	00139	Kentucky 5 Star Energy LLC	FS02	-87.52415	37.6462

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
21101	00139	Kentucky 5 Star Energy LLC	FS03	-87.52415	37.6462
21101	00139	Kentucky 5 Star Energy LLC	FS04	-87.52415	37.6462
21101	00139	Kentucky 5 Star Energy LLC	FS05	-87.52415	37.6462
21101	00139	Kentucky 5 Star Energy LLC	FS06	-87.52415	37.6462
21101	00139	Kentucky 5 Star Energy LLC	FS07	-87.52415	37.6462
21101	00139	Kentucky 5 Star Energy LLC	SV01	-87.52415	37.6462
21101	00139	Kentucky 5 Star Energy LLC	SV02	-87.52415	37.6462
21101	00139	Kentucky 5 Star Energy LLC	SV03	-87.52415	37.6462
21101	00139	Kentucky 5 Star Energy LLC	SV04	-87.52415	37.6462
21101	00139	Kentucky 5 Star Energy LLC	SV05	-87.52415	37.6462
21101	00139	Kentucky 5 Star Energy LLC	SV06	-87.52415	37.6462
21101	00139	Kentucky 5 Star Energy LLC	SV07	-87.52415	37.6462
21101	00139	Kentucky 5 Star Energy LLC	SV08	-87.52415	37.6462
21101	00139	Kentucky 5 Star Energy LLC	SV09	-87.52415	37.6462
21101	00139	Kentucky 5 Star Energy LLC	SV10	-87.52415	37.6462
21101	00139	Kentucky 5 Star Energy LLC	SV11	-87.52415	37.6462
21101	00139	Kentucky 5 Star Energy LLC	SV12	-87.52415	37.6462
21101	00139	Kentucky 5 Star Energy LLC	SV13	-87.52415	37.6462
21101	00139	Kentucky 5 Star Energy LLC	SV1415	-87.52415	37.6462
21101	00139	Kentucky 5 Star Energy LLC	SV16	-87.52415	37.6462
21101	00139	Kentucky 5 Star Energy LLC	TK1-5	-87.52415	37.6462
21107	00146	Hopkinsville Wood Products	001	-87.6894	37.1652
21107	00146	Hopkinsville Wood Products	002	-87.6894	37.1652
21107	00156	J-Lok Corp	EP-AU-	-87.48739	37.27749
21107	00156	J-Lok Corp	EP-V-1	-87.48739	37.27749
21107	00156	J-Lok Corp	EP-V-2	-87.48739	37.27749
21107	00156	J-Lok Corp	EP-V-3	-87.48739	37.27749
21117	00165	Laser Graphic Systems	001	-84.627699	39.037614
21117	00165	Laser Graphic Systems	002	-84.627699	39.037614
21117	00165	Laser Graphic Systems	003	-84.627699	39.037614

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
21117	00174	BBS Tech Inc	EP1	-84.6233	39.0539
21117	00176	Alstom Power Inc	EP1	-84.6305	39.0452
21117	00176	Alstom Power Inc	EP2	-84.6305	39.0452
21119	00038	Chesapeake Appalachia LLC - Brinkley Transmission Station	001	-82.9445	37.2945
21119	00040	Chesapeake Appalachia LLC - Lackey Transmission Station	001	-82.8331	37.4665
21119	00041	ICG Knott Co - Raven Coal Preperation Plant	Group1	-82.823673	37.401875
21119	00041	ICG Knott Co - Raven Coal Preperation Plant	Group2	-82.823673	37.401875
21119	00041	ICG Knott Co - Raven Coal Preperation Plant	Group3	-82.823673	37.401875
21121	00032	Gatliff Coal Co - ADA Tipple 5	001	-83.82056	36.84028
21121	00032	Gatliff Coal Co - ADA Tipple 5	002	-83.82056	36.84028
21121	00032	Gatliff Coal Co - ADA Tipple 5	003	-83.82056	36.84028
21125	00084	Admiralty Boats Inc	001	-84.0739	36.9725
21125	00084	Admiralty Boats Inc	002	-84.0739	36.9725
21125	00084	Admiralty Boats Inc	003	-84.0739	36.9725
21125	00084	Admiralty Boats Inc	005	-84.0739	36.9725
21125	00084	Admiralty Boats Inc	006	-84.0739	36.9725
21125	00106	ABC Automotive Systems Inc	EP1-21	-84.03352	37.2125
21125	00106	ABC Automotive Systems Inc	EP22	-84.03352	37.2125
21125	00106	ABC Automotive Systems Inc	EP23	-84.03352	37.2125
21125	00106	ABC Automotive Systems Inc	EP24	-84.03352	37.2125
21133	00079	Mountain Enterprises Inc - Cumberland Plant 20	0101	-83.02111	36.9786
21133	00079	Mountain Enterprises Inc - Cumberland Plant 20	0201	-83.02111	36.9786
21133	00079	Mountain Enterprises Inc - Cumberland Plant 20	0202	-83.02111	36.9786
21133	00079	Mountain Enterprises Inc - Cumberland Plant 20	0301	-83.02111	36.9786
21135	00013	Mountain Enterprises Inc -Vanceburg Plant 30	001	-83.3475	38.5923
21135	00013	Mountain Enterprises Inc -Vanceburg Plant 30	002	-83.3475	38.5923
21135	00013	Mountain Enterprises Inc -Vanceburg Plant 30	003	-83.3475	38.5923
21141	00020	Hanson Aggregates Midwest LLC - Rockfield Quarry	001	-86.6145	36.882
21141	00020	Hanson Aggregates Midwest LLC - Rockfield Quarry	002	-86.6145	36.882
21141	00020	Hanson Aggregates Midwest LLC - Rockfield Quarry	003	-86.6145	36.882

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
21141	00020	Hanson Aggregates Midwest LLC - Rockfield Quarry	004	-86.6145	36.882
21141	00020	Hanson Aggregates Midwest LLC - Rockfield Quarry	005	-86.6145	36.882
21141	00020	Hanson Aggregates Midwest LLC - Rockfield Quarry	006	-86.6145	36.882
21141	00020	Hanson Aggregates Midwest LLC - Rockfield Quarry	007	-86.6145	36.882
21141	00020	Hanson Aggregates Midwest LLC - Rockfield Quarry	008	-86.6145	36.882
21141	00020	Hanson Aggregates Midwest LLC - Rockfield Quarry	009	-86.6145	36.882
21141	00060	Bowling Green Concrete - Rockfield Ready-Mix Plant	001	-86.6145	36.882
21179	00034	Heaven Hill Distilleries Inc	001	-85.56079	37.898141
21183	00069	Western KY Energy Corp - Wilson Station	EU-01	-87.079096	37.452104
21183	00069	Western KY Energy Corp - Wilson Station	EU-02	-87.079096	37.452104
21183	00069	Western KY Energy Corp - Wilson Station	EU-03	-87.079096	37.452104
21183	00069	Western KY Energy Corp - Wilson Station	EU-04	-87.079096	37.452104
21183	00069	Western KY Energy Corp - Wilson Station	EU-05	-87.079096	37.452104
21183	00069	Western KY Energy Corp - Wilson Station	IA	-87.079096	37.452104
21195	00267	EQT Gathering LLC - Rockhouse Compressor Station	01	-82.3281	37.5377
21195	00267	EQT Gathering LLC - Rockhouse Compressor Station	02	-82.3281	37.5377
21207	00022	Pyles Concrete Inc	001	-85.059167	37.106111
21207	00022	Pyles Concrete Inc	002	-85.059167	37.106111
21207	00022	Pyles Concrete Inc	003	-85.059167	37.106111
21211	00050	LG&E\KU System Control & Data Center	1	-85.3498	38.2117
21211	00050	LG&E\KU System Control & Data Center	2	-85.3498	38.2117
21213	00029	South Union Elevator	001	-86.6554	36.8751
21213	00029	South Union Elevator	002	-86.6554	36.8751
21213	00029	South Union Elevator	003	-86.6554	36.8751
21213	00029	South Union Elevator	004	-86.6554	36.8751
21213	00029	South Union Elevator	005	-86.6554	36.8751
21217	00033	TN Gas Pipeline - Station 96	001	-85.3944	37.4137
21217	00033	TN Gas Pipeline - Station 96	FUG01	-85.3944	37.4137
21217	00035	Ambrake Corp	001	-85.3294	37.3412
21217	00035	Ambrake Corp	002	-85.3294	37.3412

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
21217	00035	Ambrake Corp	003	-85.3294	37.3412
21219	00013	Koppers Industries,Inc	001	-87.1564	36.6433
21219	00013	Koppers Industries,Inc	002a	-87.1564	36.6433
21219	00013	Koppers Industries,Inc	002b	-87.1564	36.6433
21219	00013	Koppers Industries,Inc	003	-87.1564	36.6433
21219	00013	Koppers Industries,Inc	004	-87.1564	36.6433
21219	00013	Koppers Industries,Inc	005	-87.1564	36.6433
21219	00013	Koppers Industries,Inc	006	-87.1564	36.6433
21233	00008	Webster Co Coal LLC - Dotiki Mine Prep Plant	001	-87.774689	37.45402
21233	00008	Webster Co Coal LLC - Dotiki Mine Prep Plant	002	-87.774689	37.45402
21233	00008	Webster Co Coal LLC - Dotiki Mine Prep Plant	003	-87.774689	37.45402
21233	00008	Webster Co Coal LLC - Dotiki Mine Prep Plant	004	-87.774689	37.45402
21233	00008	Webster Co Coal LLC - Dotiki Mine Prep Plant	005	-87.774689	37.45402
37021	0735	Western Animal Disease Diagnostic Laboratory	ES-1	-82.534	35.4294
37057	3705700265	CEMEX Construction Materials, Atlantic, LLC	ES2	-80.0476	35.9019
37057	3705700265	CEMEX Construction Materials, Atlantic, LLC	ES3	-80.0476	35.9019
37057	3705700265	CEMEX Construction Materials, Atlantic, LLC	ES4	-80.0476	35.9019
37119	134	Rea Contracting, LLC. (069 Arrowood)	1	-80.9203	35.0928
45003	0080-0011	SCE&G URQUHART	3	-81.9114	33.4342
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	1	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	10	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	100	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	101	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	11	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	12	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	122	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	123	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	124	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	13	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	14	-80.0542	33.0517

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	15	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	16	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	17	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	18	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	19	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	2	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	20	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	21	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	22	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	24	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	26	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	27	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	28	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	29	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	3	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	30	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	31	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	32	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	33	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	34	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	35	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	36	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	37	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	38	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	39	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	4	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	40	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	41	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	42	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	43	-80.0542	33.0517

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	44	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	45	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	46	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	47	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	5	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	50	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	51	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	52	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	53	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	54	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	55	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	57	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	58	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	59	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	6	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	60	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	61	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	62	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	63	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	64	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	65	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	66	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	67	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	68	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	69	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	7	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	8	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	80	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	81	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	83	-80.0542	33.0517

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	84	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	85	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	86	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	87	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	9	-80.0542	33.0517
45015	0420-0015	ALUMAX OF SOUTH CAROLINA	95	-80.0542	33.0517
45015	0420-0094	SEA FOX BOAT COMPANY	1	-80.0294	33.1017
45019	0560-0029	SCE&G HAGOOD	1	-79.9639	32.8272
45059	1520-0066	FAURECIA INTERIOR SYS USA FOUNTAIN INN	57	-82.1967	34.6753
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	1	-81.1561	34.0472
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	10	-81.1561	34.0472
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	11	-81.1561	34.0472
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	12	-81.1561	34.0472
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	13	-81.1561	34.0472
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	14	-81.1561	34.0472
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	15	-81.1561	34.0472
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	16	-81.1561	34.0472
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	17	-81.1561	34.0472
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	18	-81.1561	34.0472
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	19	-81.1561	34.0472
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	2	-81.1561	34.0472
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	20	-81.1561	34.0472
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	21	-81.1561	34.0472
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	22	-81.1561	34.0472
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	227	-81.1561	34.0472
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	3	-81.1561	34.0472
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	4	-81.1561	34.0472
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	6	-81.1561	34.0472
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	7	-81.1561	34.0472
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	8	-81.1561	34.0472

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
45063	1560-0016	SHAW INDUSTRIES GROUP INC PLANT 8S	9	-81.1561	34.0472
45081	1940-0007	SIMPSON LBR CO JOHNSTON LBR MILL	1	-81.8242	33.9056
45081	1940-0007	SIMPSON LBR CO JOHNSTON LBR MILL	2	-81.8242	33.9056
45081	1940-0007	SIMPSON LBR CO JOHNSTON LBR MILL	6	-81.8242	33.9056
45081	1940-0007	SIMPSON LBR CO JOHNSTON LBR MILL	7	-81.8242	33.9056
47009	0176	USI, INC.	SPB-1	-83.933361	35.866532
47009	0176	USI, INC.	SPB-2	-83.933361	35.866532
47009	0176	USI, INC.	SPB-3	-83.933361	35.866532
47009	0176	USI, INC.	SPB-4	-83.933361	35.866532
47009	0176	USI, INC.	SPB-5	-83.933361	35.866532
47009	0176	USI, INC.	SPB-6	-83.933361	35.866532
47011	0215	ARCH CHEMICALS, INC.	H-12V	-84.78349	35.302237
47011	0215	ARCH CHEMICALS, INC.	H-13E	-84.78349	35.302237
47011	0215	ARCH CHEMICALS, INC.	H-1E	-84.78349	35.302237
47011	0215	ARCH CHEMICALS, INC.	H-2E	-84.78349	35.302237
47011	0215	ARCH CHEMICALS, INC.	H-3E	-84.78349	35.302237
47011	0215	ARCH CHEMICALS, INC.	H-5E	-84.78349	35.302237
47011	0215	ARCH CHEMICALS, INC.	H-7E	-84.78349	35.302237
47011	0215	ARCH CHEMICALS, INC.	H-89BH	-84.78349	35.302237
47011	0215	ARCH CHEMICALS, INC.	H-8BH	-84.78349	35.302237
47011	0215	ARCH CHEMICALS, INC.	H-9BH	-84.78349	35.302237
47011	0215	ARCH CHEMICALS, INC.	H-P10	-84.78349	35.302237
47011	0215	ARCH CHEMICALS, INC.	H-P11	-84.78349	35.302237
47017	0012	NORANDAL USA, INC.	801HD	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	801MR	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	802HD	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	802M	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	803HD	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	803M	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	804HD	-88.381931	36.01828

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
47017	0012	NORANDAL USA, INC.	804M	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	901H	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	901M	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	902H	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	902M	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	903HD	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	903M	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	904HD	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	905MHD	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	AHON	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	AHOS	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	FUG-01	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	RM1	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	S-05A	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	S-05B	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	S-05C	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	S-05D	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	S-05E	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	S-05F	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	S-05G	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	S-05H	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	S-05I	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	S-05J	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	S-05K	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	S-05L	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	S-08A	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	S-08B	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	S-14A	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	S-14B	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	S-14C	-88.381931	36.01828

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
47017	0012	NORANDAL USA, INC.	S-14D	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	S-19A	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	S-23A	-88.381931	36.01828
47017	0012	NORANDAL USA, INC.	S-31A	-88.381931	36.01828
47025	0083	DTR TENNESSEE, INC	001	-83.5685	36.4499
47025	0083	DTR TENNESSEE, INC	002	-83.5685	36.4499
47025	0083	DTR TENNESSEE, INC	003	-83.5685	36.4499
47025	0083	DTR TENNESSEE, INC	004	-83.5685	36.4499
47025	0083	DTR TENNESSEE, INC	009	-83.5685	36.4499
47025	0083	DTR TENNESSEE, INC	010	-83.5685	36.4499
47025	0083	DTR TENNESSEE, INC	011	-83.5685	36.4499
47025	0083	DTR TENNESSEE, INC	012	-83.5685	36.4499
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	001	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-001	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-002	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-003	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-004	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-006	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-007	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-008	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-009	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-010	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-011	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-012	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-021	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-022	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-024	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-029	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-030	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-031	-85.8032441139221	35.9846564894419

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-032	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-033	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-034	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-040	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-041	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-042	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-043	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-048	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-049	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-050	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-051	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-052	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-054	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-055	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-062	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-063	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-064	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-065	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-066	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-067	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-068	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-069	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-082	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-083	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-084	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-085	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-086	-85.8032441139221	35.9846564894419
47041	0031	FEDERAL MOGUL CORPORATION FRICTION PRODUCTS, INC.	S-087	-85.8032441139221	35.9846564894419
47043	0079	MASONITE DOOR CORPORATION	EP12	-87.33833	36.04666
47043	0079	MASONITE DOOR CORPORATION	EP6	-87.33833	36.04666

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47043	0079	MASONITE DOOR CORPORATION	FUG1	-87.33833	36.04666
47059	0165	DELFASCO OF TENNESSEE	141-02	-82.777154	36.201447
47059	0165	DELFASCO OF TENNESSEE	165-1A	-82.777154	36.201447
47059	0165	DELFASCO OF TENNESSEE	165-1B	-82.777154	36.201447
47059	0165	DELFASCO OF TENNESSEE	165-1C	-82.777154	36.201447
47059	0165	DELFASCO OF TENNESSEE	165-1D	-82.777154	36.201447
47073	0001	HOLLISTON MILLS, INC.	C1A	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	C1W	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	E19F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	E4F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	E53F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	E5F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	E61F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	E9F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	F1M	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	F2M	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P10A	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P10F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P11A	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P11AF	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P11F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P12A	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P12F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P13F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P14F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P15F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P16F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P17F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P19F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P1A	-82.7581	36.51216

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47073	0001	HOLLISTON MILLS, INC.	P20A	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P20F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P21A	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P21F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P22F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P23F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P24F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P25F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P26F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P2A	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P34F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P35F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P36F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P37F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P38F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P3A	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P3F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P43F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P44F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P45F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P46F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P48F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P49F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P4A	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P4F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P51F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P58F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P5A	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P5AF	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P5F	-82.7581	36.51216

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47073	0001	HOLLISTON MILLS, INC.	P60F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P62F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P63F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P67F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P6A	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P6AF	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P6F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P7A	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P7F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P8A	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P8F	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P9A	-82.7581	36.51216
47073	0001	HOLLISTON MILLS, INC.	P9F	-82.7581	36.51216
47075	0039	HAYWOOD COMPANY	9_A	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	9_B	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	BIN_10	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C114	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C115	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C116	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C117	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C118	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C119	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C120	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C121	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C122	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C124	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C125	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C126	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C127	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C128	-89.2406367	35.6084803

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
47075	0039	HAYWOOD COMPANY	C427	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C63	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C64	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C65	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C66	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C67	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C68	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C69	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C70	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C71	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C72	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C73	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C74	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C75	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C76	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C77	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C78	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C79	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C80	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C81	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C82	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C83	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C84	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C85	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C86	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C87	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C88	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C89	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C90	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	C91	-89.2406367	35.6084803

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
47075	0039	HAYWOOD COMPANY	CEMENT	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	FCM_7	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	FP3_MI	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	H196	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	HOSE	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	Line10	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	MB1_MI	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	MILL_1	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	MILL_2	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	MILL_5	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	MILL_6	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	MILL34	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	N 112	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	N1	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	PRESS1	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	PRESS2	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	PRESS3	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	PRESS4	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	PRESS5	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	PVC_WE	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	RE46	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	RE47	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	REXT	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	RU_101	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	RU_112	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	RU_23	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	RU_32	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	RU_69	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	RU_70	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	RU_93	-89.2406367	35.6084803

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
47075	0039	HAYWOOD COMPANY	SILO-1	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	SILO-2	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	SILO-3	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	SILO-4	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	SILO-5	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	SILO-6	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	SILO-7	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	SILO-8	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	UNIT_8	-89.2406367	35.6084803
47075	0039	HAYWOOD COMPANY	UNIT_9	-89.2406367	35.6084803
47089	0006	FIVE RIVERS ELECTRONIC INNOVATIONS, LLC. - CABINET DIVISION	FUG4-1	-83.4747219085693	36.1387844972274
47089	0006	FIVE RIVERS ELECTRONIC INNOVATIONS, LLC. - CABINET DIVISION	FUG5-1	-83.4747219085693	36.1387844972274
47089	0006	FIVE RIVERS ELECTRONIC INNOVATIONS, LLC. - CABINET DIVISION	S-001	-83.4747219085693	36.1387844972274
47089	0006	FIVE RIVERS ELECTRONIC INNOVATIONS, LLC. - CABINET DIVISION	S-002	-83.4747219085693	36.1387844972274
47089	0006	FIVE RIVERS ELECTRONIC INNOVATIONS, LLC. - CABINET DIVISION	S-003	-83.4747219085693	36.1387844972274
47089	0006	FIVE RIVERS ELECTRONIC INNOVATIONS, LLC. - CABINET DIVISION	S-004	-83.4747219085693	36.1387844972274
47089	0006	FIVE RIVERS ELECTRONIC INNOVATIONS, LLC. - CABINET DIVISION	S-005	-83.4747219085693	36.1387844972274
47089	0006	FIVE RIVERS ELECTRONIC INNOVATIONS, LLC. - CABINET DIVISION	S-006	-83.4747219085693	36.1387844972274
47089	0006	FIVE RIVERS ELECTRONIC INNOVATIONS, LLC. - CABINET DIVISION	S-007	-83.4747219085693	36.1387844972274
47089	0006	FIVE RIVERS ELECTRONIC INNOVATIONS, LLC. - CABINET DIVISION	S-008	-83.4747219085693	36.1387844972274
47089	0006	FIVE RIVERS ELECTRONIC INNOVATIONS, LLC. - CABINET DIVISION	S-009	-83.4747219085693	36.1387844972274

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
47089	0006	FIVE RIVERS ELECTRONIC INNOVATIONS, LLC. - CABINET DIVISION	S-010	-83.4747219085693	36.1387844972274
47105	0098	MALIBU BOATS WEST, INC.	S-G2	-84.329085	35.761724
47105	0098	MALIBU BOATS WEST, INC.	S-G3	-84.329085	35.761724
47109	0055	Masco Bath Company - Main Plant	BV-03	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	BV-04	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	DC-01	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	DC-02	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	DC-04	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	DC-05	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-01A	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-01B	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-01C	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-02A	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-02B	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-02C	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-03A	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-03B	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-03C	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-04A	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-04B	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-04C	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-17	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-18	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-22	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-25	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-26	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-27	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-28	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-29	-88.39499	35.25027

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
47109	0055	Masco Bath Company - Main Plant	EF-30	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-31	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-32	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-33	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-34	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-35	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-36	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-37	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-38	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-39	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-40	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-41	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-42	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-B1A	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-B1B	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-B1C	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-BV1	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-BV2	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-C1A	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-C1B	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	EF-C1C	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	GC-02A	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	GC-03A	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	GC-04A	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	GC-05A	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	GC-06A	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	GEF-01	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	S-01-8	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	S-09	-88.39499	35.25027
47109	0055	Masco Bath Company - Main Plant	S-11	-88.39499	35.25027

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
47117	0013	ROGERS GROUP, INC	S-001A	-86.7746061086654	35.455850366335
47117	0013	ROGERS GROUP, INC	S-001B	-86.7746061086654	35.455850366335
47119	0132	SATURN CORPORATION	FUG110	-86.963825	35.737595
47119	0132	SATURN CORPORATION	FUG126	-86.963825	35.737595
47119	0132	SATURN CORPORATION	FUG130	-86.963825	35.737595
47119	0132	SATURN CORPORATION	FUG133	-86.963825	35.737595
47119	0132	SATURN CORPORATION	FUG136	-86.963825	35.737595
47119	0132	SATURN CORPORATION	FUG145	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-1022	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-1042	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-1044	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-1122	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-1142	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-1144	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-120	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-121	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-123	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-124	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-1242	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-1244	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-125	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-127	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-128	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-131	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-132	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-1322	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-1342	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-1344	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-1422	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-144	-86.963825	35.737595

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
47119	0132	SATURN CORPORATION	S-1442	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-1444	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-1542	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-1544	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-1644	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-1722	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-1822	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-1922	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-2022	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-2122	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-224	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-225	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-227	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-228	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-231	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-232	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-2422	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-244	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-2522	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-324	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-325	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-328	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-331	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-332	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-344	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-425	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-428	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-431	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-432	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-444	-86.963825	35.737595

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
47119	0132	SATURN CORPORATION	S-523	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-531	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-532	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-542	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-544	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-621	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-623	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-624	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-625	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-631	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-632	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-644	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-721	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-723	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-724	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-731	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-744	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-821	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-823	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-824	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-831	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-844	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-922	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-924	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-942	-86.963825	35.737595
47119	0132	SATURN CORPORATION	S-944	-86.963825	35.737595
47123	0089	SEA RAY BOATS, INC.	TEL01	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL02	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL03	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL05	-84.265587	35.612424

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
47123	0089	SEA RAY BOATS, INC.	TEL06	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL07	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL08	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL09	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL10	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL11	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL12	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL13	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL14	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL15	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL16	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL17	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL18	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL19	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL20	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL21	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL22	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL23	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL24	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL25	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL26	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL27	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL28	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL29	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL30	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL31	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL32	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL33	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL34	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL35	-84.265587	35.612424

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
47123	0089	SEA RAY BOATS, INC.	TEL36	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL37	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL38	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL39	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL40	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL41	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL42	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL44	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL46	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL48	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL49	-84.265587	35.612424
47123	0089	SEA RAY BOATS, INC.	TEL50	-84.265587	35.612424
47123	0096	TENNESSEE WATERCRAFT INC.	EP-1	-84.25416	35.60583
47123	0096	TENNESSEE WATERCRAFT INC.	EP-2A	-84.25416	35.60583
47123	0096	TENNESSEE WATERCRAFT INC.	EP-2B	-84.25416	35.60583
47123	0096	TENNESSEE WATERCRAFT INC.	EP-3A	-84.25416	35.60583
47123	0096	TENNESSEE WATERCRAFT INC.	EP-3B	-84.25416	35.60583
47123	0096	TENNESSEE WATERCRAFT INC.	EP-3C	-84.25416	35.60583
47123	0096	TENNESSEE WATERCRAFT INC.	EP-3D	-84.25416	35.60583
47123	0096	TENNESSEE WATERCRAFT INC.	EP-4A	-84.25416	35.60583
47123	0096	TENNESSEE WATERCRAFT INC.	EP-4B	-84.25416	35.60583
47123	0096	TENNESSEE WATERCRAFT INC.	EP-4C	-84.25416	35.60583
47123	0096	TENNESSEE WATERCRAFT INC.	EP-4D	-84.25416	35.60583
47123	0096	TENNESSEE WATERCRAFT INC.	EP-4E	-84.25416	35.60583
47123	0096	TENNESSEE WATERCRAFT INC.	EP-4F	-84.25416	35.60583
47123	0096	TENNESSEE WATERCRAFT INC.	EP-4G	-84.25416	35.60583
47123	0096	TENNESSEE WATERCRAFT INC.	EP-4H	-84.25416	35.60583
47123	0096	TENNESSEE WATERCRAFT INC.	EP-5A	-84.25416	35.60583
47123	0096	TENNESSEE WATERCRAFT INC.	EP-5B	-84.25416	35.60583
47123	0096	TENNESSEE WATERCRAFT INC.	EP-5C	-84.25416	35.60583

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
47123	0096	TENNESSEE WATERCRAFT INC.	EP-5D	-84.25416	35.60583
47123	0096	TENNESSEE WATERCRAFT INC.	ES-2	-84.25416	35.60583
47147	0055	ELECTROLUX MAJOR APPLICANCES NORTH AMERICA	S-026	-86.87083	36.5
47147	0055	ELECTROLUX MAJOR APPLICANCES NORTH AMERICA	S-028	-86.87083	36.5
47147	0055	ELECTROLUX MAJOR APPLICANCES NORTH AMERICA	S-041	-86.87083	36.5
47149	0155	NISSAN NORTH AMERICA, INC.	FUG-22	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	FUG-93	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	FUG-97	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	NG65	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	S1P107	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	S1P109	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	S1P19	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	S1P26	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	S1P4	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	S1P41	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	S1P6	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	S1P61	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	S2P1	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	S2P10	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	S2P16	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	S2P23	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	S2P27	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	S2P37	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	S2P4	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	S2P54	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	S2P55	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	S2P6	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	S3P10	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	S3P12	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	SO05	-86.492314338684	35.9616818991803

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
47149	0155	NISSAN NORTH AMERICA, INC.	SOB3	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	SOS3	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	SPP3	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	SPP4	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	TC1	-86.492314338684	35.9616818991803
47149	0155	NISSAN NORTH AMERICA, INC.	TC23	-86.492314338684	35.9616818991803
47149	0172	STRATOS (JAVELIN_2 BOATS)	65978	-86.382526	35.794599
47149	0172	STRATOS (JAVELIN_2 BOATS)	65979	-86.382526	35.794599
47149	0172	STRATOS (JAVELIN_2 BOATS)	65980	-86.382526	35.794599
47149	0172	STRATOS (JAVELIN_2 BOATS)	S-014	-86.382526	35.794599
47153	0034	TECUMSEH PRODUCTS CO.	S-001	-85.378844	35.389409
47153	0034	TECUMSEH PRODUCTS CO.	S-002	-85.378844	35.389409
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87A01	-86.55881	36.617026
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87A02	-86.55881	36.617026
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87A03	-86.55881	36.617026
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87A04	-86.558725	36.616827
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87A05	-86.558725	36.616827
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87A06	-86.558725	36.616827
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87A07	-86.558725	36.616827
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87A08	-86.558725	36.616827
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87A09	-86.558725	36.616827
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87C01	-86.55779	36.61541
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87C02	-86.55779	36.61541
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87C03	-86.55779	36.61541
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87C04	-86.5579	36.61539
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87C05	-86.5579	36.61539
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87C06	-86.55785	36.6153
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87C07	-86.55785	36.6153
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87C08	-86.55785	36.6153
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87D01	-86.557744	36.615342

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87D02	-86.557744	36.615342
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87D03	-86.557744	36.615342
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87E01	-86.55775	36.615269
47165	0008	TENNESSEE GAS PIPELINE COMPANY, STATION 87	87E02	-86.55775	36.615269
47167	0079	QW MEMPHIS CORPORATION - COVINGTON DIVISION	PT-3	-89.6202	35.619894
47167	0079	QW MEMPHIS CORPORATION - COVINGTON DIVISION	PT-4	-89.6202	35.619894
47167	0079	QW MEMPHIS CORPORATION - COVINGTON DIVISION	PT-5	-89.6202	35.619894
47167	0079	QW MEMPHIS CORPORATION - COVINGTON DIVISION	REECO1	-89.6202	35.619894
47167	0079	QW MEMPHIS CORPORATION - COVINGTON DIVISION	REECO2	-89.6202	35.619894
51001	00012	A and N Electric Cooperative - Tangier Island	1	-75.99	37.82
51001	61414	Old Dominion Electric Cooperative - UNIT 9	1	-76	37.84
51001	61415	Old Dominion Electric Cooperative - UNIT 10	1	-76	37.84
51003	00099	Virginia Industries for the Blind	1	-78.473033	38.021635
51019	00001	Rubatex International LLC	1	-79.5102	37.335
51027	11159	Equitable Production Co-Hurricane	2	-82.15	37.1338
51031	00006	Babcock & Wilcox Nuclear Operations Group Inc	21	-79.0553	37.4091
51065	00001	Dominion - Bremo Power Station	1	-78.2878	37.7089
51075	00030	INGENCO - Rockville Plant	1	-77.664009	37.701839
51081	00001	Emporia Foundry Incorporated	1	-77.533596	36.695345
51081	00011	Belding Hausman Inc - Weldon Mill	1	-77.557906	36.687885
51081	00020	Georgia Pacific Wood Products - Emporia - Plywood	1	-77.524693	36.696494
51085	00042	Bear Island Paper Company LLC	17	-77.438847	37.813092
51095	00023	HRSD - Williamsburg Sewage Treatment Plant	1	-76.629116	37.214578
51101	00001	Stone Container Enterprises dba Smurfit-Stone Cont	1	-76.8053	37.5392
51101	00004	West Point Veneer LLC	1	-76.807052	37.545246
51101	00021	Old Dominion Grain	1	-76.815181	37.550893
51101	00023	Augusta Wood Products LC - Sawmill	1	-76.833819	37.569165
51101	00027	West Point Chips Incorporated	1	-76.8028	37.5347
51121	00006	Alliant Techsystems Inc	2	-80.541111	37.180556
51121	00091	Thermasteel Corporation	1	-80.566111	37.116667

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
51133	00013	Waller, R P Oil BP	1	-76.279	37.8389
51153	00002	Dominion - Possum Point Power Station	10	-77.280833	38.538333
51153	00011	Prince William Hospital Corporation	5	-77.485011	38.767515
51153	00021	LOCKHEED MARTIN MANASSAS	11	-77.518	38.746615
51153	00814	BAE Systems	1	-77.497033	38.754995
51153	00889	Architect of the Capitol	2	-77.513211	38.746615
51161	00011	Adams Construction Co - Rockydale	1	-79.9468	37.2149
51161	00015	Double Envelope Company	1	-79.9557	37.353611
51165	00069	Adams Construction Company	1	-78.741546	38.701234
51165	00106	Transprint USA Inc	1	-78.900047	38.3915
51179	00020	FBI Academy	1	-77.290215	38.521416
51191	00044	Universal Fibers Inc.	1	-82.1055	36.6628
51195	00089	P M Terminals Inc -Buck Oil Co	1	-82.3133	36.9044
51515	00038	Wheelabrator Abrasives Incorporated	21	-79.55364	37.34398
51520	00018	Strongwell Corporation/Bristol Division	6	-82.1772	36.5961
51620	00011	Franklin City - Electric Dept - Mechanic Street	1	-76.919762	36.676495
51640	00002	Turman Hardwood Flooring Inc.	5	-80.9397	36.6497
51650	00007	US Air Force Base Langley	15	-76.3517	37.0825
51650	00011	US Department of Veterans Affairs Medical Ctr	1	-76.3319	37.0144
51650	00093	Bethel Landfill (USA Waste of Virginia)	1	-76.426362	37.072856
51683	00003	Glen-Gery Corporation - Capitol Plant	1	-77.5049	38.7404
51683	00090	City of Manassas/VMEA	1	-77.508056	38.739722
51690	00050	Southern Finishing	1	-79.854646	36.690211
51700	00013	Northrop Grumman Shipbuilding Incorporated	28	-76.435536	36.986204
51700	00071	Kinder Morgan Bulk Terminals - Pier IX	1	-76.432727	36.974556
51710	00009	Ford Motor Company Norfolk Plant	6	-76.252861	36.831447
51710	00068	U S Gypsum Co	1	-76.285607	36.827833
51710	00113	J H Miles & Company Incorporated	1	-76.305517	36.858616
51710	00249	Lyon Shipyard, Incorporated - Brown Ave	1	-76.272162	36.843147
51710	00251	Lyon Shipyard Incorporated - Sealift Drydock	1	-76.265069	36.840516

FIPS Code	State Fac ID	Facility Name	Release Point ID	Long	Lat
51740	00037	Fleet & Industrial Supply Center	1	-76.375018	36.883533
51760	00098	Kinder Morgan Southeast Terminals-Rchmd Terminal	10	-77.426805	37.456647
51760	00399	Spruance Genco LLC	1	-77.426805	37.456647
51760	00489	Motiva Enterprises LLC-Richmond Terminal	1	-77.445305	37.491947
51810	00013	US Navy - Joint Expeditionary Base - Little Creek	1	-76.1469	36.9058
51810	00034	HRSD Chesapeake-Elizabeth Sewage Treatment Plant	1	-76.164721	36.90675
54029	5402900001	ARCELORMITTAL WEIRTON INC.	107	-80.6028	40.4219
54029	5402900001	ARCELORMITTAL WEIRTON INC.	108	-80.6028	40.4219
54029	5402900001	ARCELORMITTAL WEIRTON INC.	109	-80.6028	40.4219
54029	5402900001	ARCELORMITTAL WEIRTON INC.	111	-80.6028	40.4219
54029	5402900001	ARCELORMITTAL WEIRTON INC.	112	-80.6028	40.4219

Appendix B: Comparison of Original EGU Emissions Prepared by AMEC (V_1_10) with Emissions Prepared by WV DAQ (v_1_10a)

Facility Name	State County FIPS	State Facility Identifier	Emission Unit ID	Process ID	SCC	Pollutant Code	v_1-10 Emission Numeric Value	v1-10a Emission Numeric Value
Appalachian Power - John E Amos Plant	54079	5407900006	001	1	10100202	PM10-PRI	393	1,164
Appalachian Power - John E Amos Plant	54079	5407900006	001	1	10100202	PM25-PRI	305	1,100
Appalachian Power - John E Amos Plant	54079	5407900006	002	1	10100202	PM10-PRI	427	1,280
Appalachian Power - John E Amos Plant	54079	5407900006	002	1	10100202	PM25-PRI	331	1,209
Appalachian Power - John E Amos Plant	54079	5407900006	003	1	10100202	PM10-PRI	871	1,989
Appalachian Power - John E Amos Plant	54079	5407900006	003	1	10100202	PM25-PRI	676	1,845
Appalachian Power - Kanawha River Plant	54039	5403900006	001	1	10100202	PM10-PRI	104	327
Appalachian Power - Kanawha River Plant	54039	5403900006	001	1	10100202	PM25-PRI	80	280
Appalachian Power - Kanawha River Plant	54039	5403900006	002	1	10100202	PM10-PRI	115	362
Appalachian Power - Kanawha River Plant	54039	5403900006	002	1	10100202	PM25-PRI	89	309
Appalachian Power - Mountaineer Plant	54053	5405300009	001	1	10100202	PM10-PRI	609	1,660
Appalachian Power - Mountaineer Plant	54053	5405300009	001	1	10100202	PM25-PRI	473	1,506
Appalachian Power Co.- Philip Sporn Plant	54053	5405300001	001	1	10100202	PM10-PRI	148	351
Appalachian Power Co.- Philip Sporn Plant	54053	5405300001	001	1	10100202	PM25-PRI	115	332
Appalachian Power Co.- Philip Sporn Plant	54053	5405300001	002	1	10100202	PM10-PRI	108	269
Appalachian Power Co.- Philip Sporn Plant	54053	5405300001	002	1	10100202	PM25-PRI	84	255
Appalachian Power Co.- Philip Sporn Plant	54053	5405300001	003	1	10100202	PM10-PRI	148	360

Facility Name	State County FIPS	State Facility Identifier	Emission Unit ID	Process ID	SCC	Pollutant Code	v_1-10 Emission Numeric Value	v1-10a Emission Numeric Value
Appalachian Power Co.-Philip Sporn Plant	54053	5405300001	003	1	10100202	PM25-PRI	115	341
Appalachian Power Co.-Philip Sporn Plant	54053	5405300001	004	1	10100202	PM10-PRI	155	377
Appalachian Power Co.-Philip Sporn Plant	54053	5405300001	004	1	10100202	PM25-PRI	120	357
Appalachian Power Co.-Philip Sporn Plant	54053	5405300001	005	1	10100202	PM10-PRI	373	818
Appalachian Power Co.-Philip Sporn Plant	54053	5405300001	005	1	10100202	PM25-PRI	289	773
Monongahela Power Co - Albright P.S.	54077	5407700001	001	1	10100202	PM10-PRI	7	281
Monongahela Power Co - Albright P.S.	54077	5407700001	001	1	10100202	PM25-PRI	4	273
Monongahela Power Co - Albright P.S.	54077	5407700001	002	1	10100202	PM10-PRI	11	280
Monongahela Power Co - Albright P.S.	54077	5407700001	002	1	10100202	PM25-PRI	6	273
Monongahela Power Co - Albright P.S.	54077	5407700001	003	1	10100212	PM10-PRI	0	609
Monongahela Power Co - Albright P.S.	54077	5407700001	003	1	10100212	PM25-PRI	0	567
Monongahela Power Co. - Rivesville Ps	54049	5404900009	001	1	10100202	PM10-PRI	1	4
Monongahela Power Co. - Rivesville Ps	54049	5404900009	001	1	10100202	PM25-PRI	1	4
Monongahela Power Co. - Rivesville Ps	54049	5404900009	002	1	10100202	PM10-PRI	32	166
Monongahela Power Co. - Rivesville Ps	54049	5404900009	002	1	10100202	PM25-PRI	19	137
Monongahela Power Co.-Fort Martin Power	54061	5406100001	001	1	10100212	PM10-PRI	110	2,196
Monongahela Power Co.-Fort Martin Power	54061	5406100001	001	1	10100212	PM25-PRI	65	2,164

Facility Name	State County FIPS	State Facility Identifier	Emission Unit ID	Process ID	SCC	Pollutant Code	v_1-10 Emission Numeric Value	v1-10a Emission Numeric Value
Monongahela Power Co.-Fort Martin Power	54061	5406100001	002	1	10100202	PM10-PRI	66	2,254
Monongahela Power Co.-Fort Martin Power	54061	5406100001	002	1	10100202	PM25-PRI	39	2,219
Monongahela Power Co.-Willow Island	54073	5407300004	001	1	10100202	PM10-PRI	2	135
Monongahela Power Co.-Willow Island	54073	5407300004	001	1	10100202	PM25-PRI	1	117
Monongahela Power Co.-Willow Island	54073	5407300004	002	1	10100203	PM10-PRI	236	368
Monongahela Power Co.-Willow Island	54073	5407300004	002	1	10100203	PM25-PRI	211	337
Monongahela Power Co-Harrison	54033	5403300015	001	1	10100202	PM10-PRI	603	943
Monongahela Power Co-Harrison	54033	5403300015	001	1	10100202	PM25-PRI	480	644
Monongahela Power Co-Harrison	54033	5403300015	002	1	10100202	PM10-PRI	506	859
Monongahela Power Co-Harrison	54033	5403300015	002	1	10100202	PM25-PRI	403	583
Monongahela Power Co-Harrison	54033	5403300015	003	1	10100202	PM10-PRI	632	1,060
Monongahela Power Co-Harrison	54033	5403300015	003	1	10100202	PM25-PRI	503	723
Monongahela Power Co-Pleasants Power Sta	54073	5407300005	001	1	10100202	PM10-PRI	584	465
Monongahela Power Co-Pleasants Power Sta	54073	5407300005	001	1	10100202	PM25-PRI	314	395
Monongahela Power Co-Pleasants Power Sta	54073	5407300005	002	1	10100202	PM10-PRI	258	490
Monongahela Power Co-Pleasants Power Sta	54073	5407300005	002	1	10100202	PM25-PRI	139	414
Mount Storm Power Station	54023	5402300003	001	1	10100212	PM10-PRI	92	2,388
Mount Storm Power Station	54023	5402300003	001	1	10100212	PM25-PRI	73	2,355

Facility Name	State County FIPS	State Facility Identifier	Emission Unit ID	Process ID	SCC	Pollutant Code	v_1-10 Emission Numeric Value	v1-10a Emission Numeric Value
Mount Storm Power Station	54023	5402300003	002	1	10100212	PM10-PRI	97	2,488
Mount Storm Power Station	54023	5402300003	002	1	10100212	PM25-PRI	77	2,454
Mount Storm Power Station	54023	5402300003	003	1	10100212	PM10-PRI	191	510
Mount Storm Power Station	54023	5402300003	003	1	10100212	PM25-PRI	151	397
North Branch Power Station	54023	5402300014	001	1	10100217	PM10-PRI	19	55
North Branch Power Station	54023	5402300014	001	1	10100217	PM25-PRI	3	55
North Branch Power Station	54023	5402300014	002	1	10100217	PM10-PRI	18	34
North Branch Power Station	54023	5402300014	002	1	10100217	PM25-PRI	3	34
Ohio Power - Kammer Plant	54051	5405100006	001	1	10100203	PM10-PRI	34	760
Ohio Power - Kammer Plant	54051	5405100006	001	1	10100203	PM25-PRI	28	754
Ohio Power - Kammer Plant	54051	5405100006	002	1	10100203	PM10-PRI	33	726
Ohio Power - Kammer Plant	54051	5405100006	002	1	10100203	PM25-PRI	27	720
Ohio Power - Kammer Plant	54051	5405100006	003	1	10100203	PM10-PRI	34	755
Ohio Power - Kammer Plant	54051	5405100006	003	1	10100203	PM25-PRI	28	750
Ohio Power - Mitchell Plant	54051	5405100005	001	1	10100202	PM10-PRI	244	1,112
Ohio Power - Mitchell Plant	54051	5405100005	001	1	10100202	PM25-PRI	189	1,056
Ohio Power - Mitchell Plant	54051	5405100005	002	1	10100202	PM10-PRI	331	1,416
Ohio Power - Mitchell Plant	54051	5405100005	002	1	10100202	PM25-PRI	257	1,345

Notes: v_1_10 values based on PM augmentation by AMEC of PM filterable data provided by WV DAQv_1_10a values calculated from emission factors based on the ratio of NEI 2002 emissions to CAMD 2002 heat inputs. Those factors were applied to 2007 CAMD heat inputs.
At the time WV DAQ requested that its data replace the original AMEC data, DAQ believed that the same methodology was necessary between its 2008 NEI submittal and the 2007 SEMAP inventory. That belief later turned out to be incorrect. Therefore, the SEMAP 2007 inventory that was modeled reflectsdifferent methodology for WV EGUs than was used for the other SEMAP states.

AREA AND NONROAD 2007 BASE YEAR INVENTORIES

REVISED FINAL REPORT

Contract No. S-2009-06-01

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I. INTRODUCTION

TranSystems is supporting the Southeastern States Air Resource Managers, Inc. (SESARM) in the Southeastern Modeling, Analysis, and Planning (SEMAP) project that is funded by the same ten states originally involved in the Visibility Improvement – State and Tribal Association of the Southeast (VISTAS) project. The SEMAP project addresses the next phase of ozone, fine particle, and regional haze assessment obligations of the SESARM member states. The SEMAP project is designed to produce technical analyses to aid the participating agencies in developing State Implementation Plans (SIPs) required by the Clean Air Act.

In June 2010, TranSystems developed a set of "final" 2007 area and nonroad source base year inventory emission estimates (Pechan, 2010). These estimates are reported by county and source classification code (SCC), and were developed using data from a number of sources:

- State/Local (S/L) agency emissions data;
- 2007 year emissions data compiled from running EPA's NONROAD model with a combination of EPA default and S/L agency-supplied inputs;
- 2007 area source emissions estimated by TranSystems, generally developed using the emissions estimation procedures used to prepare EPA's draft 2008 National Emissions Inventory (NEI);[1]
- 2007 industrial and commercial/institutional (ICI) fuel combustion emission estimates developed by TranSystems;
- 2008 commercial marine vessel and aircraft emission estimates from EPA's draft 2008 NEI, modified by TranSystems to reflect 2007 activity levels;
- 2007 switchyard and Class I line-haul locomotive estimates provided by the Eastern Regional Technical Advisory Committee (ERTAC); and
- 2008 ERTAC Class II/III line-haul locomotive emission estimates, modified by TranSystems to reflect 2007 activity levels.

Because EPA had not developed draft 2008 NEI emission estimates for Agricultural Tilling, Mining and Quarrying, and Pesticide Application at the time that the final area/nonroad source inventory was prepared, the final area source inventory also incorporated guidance from S/L agencies as to whether to incorporate emission estimates carried forward or grown[2] from EPA's 2002 area source NEI for these source categories. For ICI fuel combustion and other NEI source categories for which draft emission estimates reflected total emissions activity, it was necessary for TranSystems to perform point source subtractions to develop estimates of the emissions from area sources. These point source subtractions were performed using version 1.3 of the 2007 SEMAP point source inventory.

Since the final area source inventory was prepared in June 2010, SESARM requested that TranSystems incorporate additional S/L agency feedback into a revised final area source inventory. This feedback included direction to use updated agency emissions data, and to revise/remove other emission estimates. In the latter case, feedback included direction to replace S/L agency estimates with TranSystems defaults, and to remove emission estimates for specific fire source categories: Open Burning of Land Clearing Debris; Agricultural Field Burning; Forest Wildfire; and Prescribed Burning (these source categories are covered by a separate fire inventory developed by a different SESARM contractor).[3] For two source categories, Residential Wood Combustion and Stage I Gasoline Service Stations, SESARM directed TranSystems to develop new emission estimates reflecting changes to some of the inputs that had been used to develop the 2008 area source NEI emission estimates. In addition, SESARM directed

[1] 2008 NEI methods rely on Eastern Regional Technical Advisory Committee (ERTAC) methods when available.

[2] Based on direction from S/L agencies, some 2002 NEI emission estimates were projected to 2007 using emission activity growth factors from Version 5.0 of the Economic Growth Analysis System (EGAS) (EPA, 2010).

[3] In the case of Open Burning of Land Clearing Debris and Agricultural Field Burning, TranSystems provided the contractor (AMEC) with a file containing the final area source inventory's emission estimates.

TranSystems to re-perform the point source subtractions using an updated version (1.10a) of the SEMAP 2007 point source inventory.[4, 5]

Changes to the final nonroad mobile source inventory were relatively modest, with the only major change relating to the development of updated NONROAD model emission estimates for Virginia using a new set of Reid vapor pressure (RVP) values provided by the State.

The following sections provide additional details on the inventory development process. The major topics that are discussed are:

- How TranSystems identified source categories and/or pollutants that may have been missing from the S/L agency supplied data;
- How TranSystems integrated data from the various emission data sources (i.e., S/L agencies, TranSystems defaults, ERTAC, and 2008 and 2002 NEI); and
- How TranSystems quality assured the integrated emissions inventory.

The balance of this report is organized as follows. Section II describes the development of the stationary area source sector inventory. The development of the nonroad mobile source sector inventory is described in Section III. Section IV presents the area and nonroad source emission summaries for the final 2007 base year inventory for the SEMAP project. Section V presents the references that were consulted in preparing the revised final inventory.

[4] As requested, TranSystems performed the point source subtractions for Georgia at the State-level (per Georgia's earlier direction, the final inventory had performed these subtractions at the county-level).

[5] It should be noted that although EPA recently developed emissions estimates for Agricultural Tilling, Mining and Quarrying, and Pesticide Application, and also incorporated revisions to the draft NEI emission estimates for Open Burning of Household Waste (2610030000) and Yard Waste (2610000100 and 2610000400), and Fugitive Dust from Paved Roads (2294000000), SESARM elected not to incorporate these updates into the revised final area source inventory.

II. STATIONARY AREA SOURCE INVENTORY

TranSystems developed the revised final 2007 base year area source inventory for the SEMAP project from a combination of six sources:

1) S/L agency supplied area source emissions data;
2) TranSystems 2007 area source emission estimates developed using the emission estimation methods from the 2008 NEI with adjustments to reflect 2007 emissions activity and to subtract point source emissions;
3) TranSystems 2007 industrial and commercial/institutional fuel combustion area source emission estimates specifically developed for the SESARM states;
4) TranSystems 2007 emission estimates for gasoline service stations/stage I unloading;
5) TranSystems 2007 emission estimates using EPA's residential wood combustion tool with SESARM-identified modifications, and
6) Area source emission estimates carried forward or grown from EPA's 2002 nonpoint source NEI.

Table II-1 summarizes how these data sources were merged to create a comprehensive stationary area source inventory for jurisdictions covered by the SEMAP project. The following sections provide more specifics on the contents of each of these data sources and how they were combined into the final 2007 area source inventory.

A. AGENCY SUPPLIED INVENTORY DATA

TranSystems commenced area source inventory development work by providing S/L agencies with a Technical Memorandum documenting the emission estimation methods and data TranSystems was using to develop the U.S. Environmental Protection Agency (EPA)'s 2008 nonpoint source NEI (Pechan, 2009a). The purpose of this memorandum was to provide agencies with information to: (1) review and comment on the methods/data, and (2) assist agencies in evaluating the merits of the NEI methods/data relative to any S/L area source inventory development efforts. State and local agencies were then provided with several months to compile and transmit area source emissions data to TranSystems.

Two state agencies (North Carolina and Virginia) and two local agencies (Jefferson County, Kentucky and Davidson County, Tennessee) provided area source data for the draft area source inventory (two additional local agencies provided data for the final area source inventory – Knox County and Shelby County, Tennessee). After receiving these S/L agency data, TranSystems compared the source classification code (SCC) and pollutant coverage of these submittals against the SCCs/pollutants in the 2007 emissions data that TranSystems was developing for this project (hereafter referred to as the "TranSystems default inventory").

To assist in obtaining direction from SESARM agencies on how to merge the data from these sources, TranSystems first identified the SCC/pollutant combinations in the TranSystems default inventory that matched to S/L agency data. Next, TranSystems reviewed remaining S/L agency SCC/pollutant combinations against TranSystems defaults to identify whether it may be possible that these emissions were covered in the TranSystems default inventory under different SCCs. TranSystems then developed a list of potential indirect matches between the two data sets for agency review. This list was compiled in an Excel worksheet. Next, TranSystems developed a separate worksheet that listed SCC/pollutant combinations in the S/L supplied area source inventory that we were unable to either directly or indirectly match to combinations in the TranSystems default inventory. A list of SCC/pollutant combinations in the TranSystems default inventory that we were unable to directly or indirectly match to combinations in the S/L agency inventory was also prepared in a separate worksheet. Finally, TranSystems developed a worksheet that contained all S/L agency inventory SCC/pollutant combinations with emissions equal to "0." The above worksheets were saved in a single Excel workbook for each Agency. In addition to these workbooks, TranSystems transmitted a Word document identifying questions on how two merge the two data sets (e.g., where S/L agency emissions are reported as zero, should TranSystems replace any of these with emissions from the TranSystems default inventory?). After

Table II-1. Overview of Area Source Inventory Components by State/Local Agency

	Alabama	Florida	Georgia	Kentucky-Jefferson County	Kentucky-Rest of State	Mississippi	North Carolina	South Carolina	Tennessee-Davidson County	Tennessee-Knox County	Tennessee-Shelby County	Tennessee-Rest of State	Virginia	West Virginia
Agency Contact	Lisa Cole/Tracy Anderson	Kelly Stevens	Byeong Kim	Craig Butler	Martin Luther	Elliott Bickerstaff	Phyllis Jones	Carla Bedenbaugh	John Finke	Steve McDaniel	Chris Boyd	Amanda Davis	Thomas Foster	Bob Betterton
Source of Emissions Data	Combination of Agency data and TranSystems defaults, supplemented with categories from 2002 NEI grown using EGAS	TranSystems defaults, supplemented with categories from 2002 NEI (combination of EGAS and carry forward)	TranSystems defaults, supplemented with categories from 2005 GA Consolidated Emissions Reporting Rule (CERR) submittal grown using EGAS	Combination of Agency data and TranSystems defaults.	TranSystems defaults, supplemented with categories from 2002 NEI grown using EGAS	TranSystems defaults, supplemented with categories from 2002 NEI (combination of EGAS and carry forward)	Combination of Agency data and TranSystems defaults.	TranSystems defaults, supplemented with categories from 2002 NEI grown using EGAS	Combination of Agency data and TranSystems defaults.	Combination of Agency data and TranSystems defaults, supplemented with categories from 2002 NEI (emissions carried forward)	Agency data	Combination of Agency data and TranSystems defaults, supplemented with categories from 2002 NEI (emissions carried forward)	Combination of Agency data and TranSystems defaults, supplemented with categories from 2002 NEI (emissions carried forward)	Combination of Agency data (Mining and Quarrying only) and TranSystems defaults, supplemented with categories from 2002 NEI (emissions carried forward)

reviewing S/L agency responses to these questions, TranSystems transmitted any follow-up questions that were necessary to clarify S/L agency guidance.

B. DEVELOPMENT OF TRANSYSTEMS DEFAULT 2007 AREA SOURCE INVENTORY

TranSystems created a default 2007 area source inventory that included all of the source categories covered by the 2008 nonpoint source NEI as of early 2010. For all these source categories except industrial and commercial/institutional (ICI) fuel combustion, stage I gasoline service stations, and residential wood combustion, TranSystems either directly incorporated emissions data from the 2008 nonpoint source NEI (when the NEI represented use of 2007 emissions activity data), or recalculated the NEI emission estimates to reflect 2007 activity levels (when the NEI reflected 2006 or 2008 activity levels) and/or removed the emissions associated with activity reflected in the point source inventory. As of early 2010, the 2008 nonpoint source NEI had only developed ICI fuel combustion emissions activity estimates, not emission estimates. Because of their potential importance and the availability of methodological improvements, TranSystems utilized an emissions estimation method for ICI fuel combustion that incorporated a few refinements to the NEI method. For stage I gasoline service stations, we developed emission estimates for this project using the NEI methods in combination with inputs reviewed and approved by S/L agencies. For residential wood combustion (RWC), TranSystems updated the emission estimates by running EPA's RWC emissions estimation tool with updates to the tool's wood consumption and wood-burning appliance profile/allocation assumptions. The following section discusses how information from the 2008 nonpoint source NEI was used in this project. The subsequent sections provide details on the methods used to estimate emissions from ICI fuel combustion, stage I gasoline service stations, and residential wood combustion.

1. 2008 Nonpoint Source NEI

TranSystems supported EPA efforts to develop the 2008 nonpoint source NEI. Because of data availability issues, the 2008 NEI is comprised of data of various vintages (2006-2008). Table II-2 provides documentation of the 2008 nonpoint source NEI, which is as follows:

(1) Source Category – identifies the name of each general source category covered.
(2) Source Classification Code(s) – lists the SCCs that are inventoried.
(3) Source Classification Code Description – provides a description of each SCC.
(4) Link to Emission Calculation Documentation – provides links to the detailed documentation of the NEI methods;[6]
(5) Link to Emission Calculation Workbook – provides a link to the draft 2008 NEI emissions or activity data;
(6) Year of Activity Data – identifies the year represented by the emissions activity data; and
(7) Point Source Component – signifies whether a portion of the source category's emissions may be included within the point source inventory.

When work commenced on the revised final base year inventory in late 2011, TranSystems notified SESARM of the availability of 2008 NEI emission estimates for the following additional area source categories: Agricultural Tilling, Mining and Quarrying, and Pesticide Application. SESARM directed TranSystems not to incorporate the 2008 NEI emission estimates for these categories. In lieu of such updates, the SEMAP emission estimates for these source categories reflect direction from S/L agencies as to whether to incorporate estimates based on emissions reported in the 2002 NEI. In such cases where these categories were identified for inclusion, agencies also provided direction as to whether the 2002 NEI emissions should be carried forward to represent 2007 emissions, or projected to 2007 using growth factors from the Economic Growth Analysis Systems (EGAS).

[6] Left clicking on the hyperlink while simultaneously pressing the control key allows one to open or save the documentation/data of interest. The complete list of material can be accessed at: http://projects.pechan.com/EPA/Non-Point_Emission_Estimates/. Note that in some cases, this documentation reflects revisions that EPA incorporated after the NEI data were compiled for this project: SESARM opted not to incorporate NEI revisions for Open Burning of Household Waste (2610030000) and Yard Waste (2610000100 and 2610000400), and Fugitive Dust from Paved Roads (2294000000).

Table II-2. 2008 NEI Area Source Categories for Which EPA Has Developed Emission Estimates

Source Category	Source Classification Code(s)	Source Classification Code Description	Link to Emission Calculation Documentation	Link to Emission Calculation Workbook	Year of Activity Data	Point Source Component
Agriculture Production – Livestock	28050nnnnn	Livestock	Agriculture_Production_Livestock_28050nnnnn_Documentation.zip	Agriculture_Production_Livestock_28050nnnnn_Emissions.zip	2007	Yes (selected SCCs)
Asphalt Paving	2461021000	Cutback Asphalt	Asphalt_Paving_Cutback_2461021000_Documentation.zip	Asphalt_Paving_Cutback_2461021000_Emissions.zip	2008	No
	2461022000	Emulsified Asphalt	Asphalt_Paving_Emulsified_2461022000_Documentation.zip	Asphalt_Paving_Emulsified_2461022000_Emissions.zip	2008	No
Aviation Gasoline Distribution: Stage I	2501080050	Aviation Gasoline: Stage I	Aviation_Gasoline_Distribution_Stage_I_2501080050_Documentation.zip	Aviation_Gasoline_Distribution_Stage_I_2501080050_Emissions.zip	2008	No
Aviation Gasoline Distribution: Stage II	2501080100	Aviation Gasoline: Stage II	Aviation_Gasoline_Distribution_Stage_II_2501080100_Documentation.zip	Aviation_Gasoline_Distribution_Stage_II_2501080100_Emissions.zip	2008	No
Commercial Cooking	2302002nnn 2302003nnn	Commercial Cooking	Commercial_Cooking_2302002nnn_Documentation.zip	Commercial_Cooking_2302002nnn_Emissions.zip	2008	No
Construction Dust	2311010000	Residential Construction	Residential_Construction_2311010000_Documentation.zip	Residential_Construction_2311010000_Emissions.zip	2008	Yes
	2311020000	Non-Residential Construction	Non-Residential_Construction_2311020000_Documentation.zip	Non-Residential_Construction_2311020000_Emissions.zip	2008	Yes
	2311030000	Road Construction	Road_Construction_2311030000_Documentation.zip	Road_Construction_2311030000_Emissions.zip	2006	No
Fertilizer Application	28017000nn	Fertilizer Application	Fertilizer_Application_28017000nn_Documentation.zip	Fertilizer_Application_28017000nn_Emissions.zip	2007	No
Gasoline Distribution (SEMAP emissions were developed for Stage I Gasoline Service Station Unloading using NEI methods with S/L agency approved inputs)	25010110nn 25010120nn	Portable Fuel Containers	Portable_Fuel_Containers_25010110nn_25010120nn_Documentation.zip	Portable_Fuel_Containers_25010110nn_25010120nn_Emissions.zip	2008	No
	2501050120	Gasoline Distribution Stage I; Bulk Terminals	Gasoline_Distribution_Stage_I_Documentation.zip	Gasoline_Distribution_Stage_I_Bulk_Terminals_2501050120_Emissions.zip	2008	Yes
	2501055120	Gasoline Distribution Stage I; Bulk Plants	Gasoline_Distribution_Stage_I_Documentation.zip	Gasoline_Distribution_Stage_I_Bulk_Plants_2501055120_Emissions.zip	2008	Yes
	250106005n	Gasoline Distribution Stage I; Gasoline Service Station Unloading	Gasoline_Distribution_Stage_I_Documentation.zip	Gasoline_Distribution_Stage_I_Service_Station_Unloading_250106005n_Emissions.zip	2008	Yes

Source Category	Source Classification Code(s)	Source Classification Code Description	Link to Emission Calculation Documentation	Link to Emission Calculation Workbook	Year of Activity Data	Point Source Component
	2501060100	Gasoline Distribution Stage II; Gasoline Service Stations	Gasoline_Distribution_Stage_II_Documentation.zip	Gasoline_Distribution_Stage_II_Gasoline_Service_Stations_2501060100_Emissions.zip	2008	Yes
	2501060201	Gasoline Distribution Stage I; Underground storage tank, breathing and emptying	Gasoline_Distribution_Stage_I_Documentation.zip	Gasoline_Distribution_Stage_I_UST_Breathing_and_Emptying_2501060201_CAP_Emissions.zip	2008	Yes
	2505030120	Gasoline Distribution Stage I; Tank Trucks in Transit	Gasoline_Distribution_Stage_I_Documentation.zip	Gasoline_Distribution_Stage_I_Tank_Trucks_in_Transit_2505030120_Emissions.zip	2008	Yes
	2505040120	Gasoline Distribution Stage I; Pipelines	Gasoline_Distribution_Stage_I_Documentation.zip	Gasoline_Distribution_Stage_I_Pipelines_2505040120_CAP_Emissions.zip	2008	No
Open Burning (NEI emissions for Open Burning of Land Clearing Debris were transmitted to AMEC for incorporation into SEMAP's fire inventory)	2610000100	Open Burning - Yard Waste - Leaves	Open_Burning_Yard_Waste_Leaf_2610000100_and_Brush_2610000400_Documentation.zip	Open_Burning_Yard_Waste_Leaf_2610000100_Emissions.zip	2008	No
	2610000400	Open Burning - Yard Waste - Brush	Open_Burning_Yard_Waste_Leaf_2610000100_and_Brush_2610000400_Documentation.zip	Open_Burning_Yard_Waste_Brush_2610000400_Emissions.zip	2008	No
	2610000500	Open Burning - Land Clearing Debris	Open_Burning_Land_Clearing_Debris_2610000500_Documentation.zip	Open_Burning_Land_Clearing_Debris_2610000500_Emissions.zip	Multiple Years	No
	2610030000	Open Burning - Household Waste	Open_Burning_MSW_2610030000_Documentation.zip	Open_Burning_MSW_2610030000_Emissions.zip	2008	No
Paved and Unpaved Roads	2294000000	Paved Road Dust	Paved_Roads_2294000000_Documentation.zip	Paved_Roads_2294000000_Emissions.zip	2007	No
	2296000000	Unpaved Road Dust	Unpaved_Roads_2296000000_Documentation.zip	Unpaved_Roads_2296000000_Emissions.zip	2007	No
Publicly Owned Treatment Works (POTW)	2630020000	Publicly Owned Treatment Works (POTW)	Publicly_Owned_Treatment_Works_2630020000_Documentation.zip	Publicly_Owned_Treatment_Works_630020000_Emissions.zip	2008	Yes
Residential Heating (SEMAP Residential Wood Combustion/Wax Firelog emissions were calculated using NEI's RWC Tool with SESARM-revised inputs)	2104001000	Residential Anthracite Coal	Residential_Coal_2104001000_2104002000_Documentation.zip	Residential_Coal_2104001000_2104002000_Emissions.zip	2006	No
	2104002000	Residential Bituminous Coal	Residential_Coal_2104001000_2104002000_Documentation.zip	Residential_Coal_2104001000_2104002000_Emissions.zip	2006	No
	2104004000	Residential Distillate Oil	Residential_Distillate_Fuel_2104004000_Documentation.zip	Residential_Distillate_Fuel_2104004000_Emissions.zip	2006	No

Source Category	Source Classification Code(s)	Source Classification Code Description	Link to Emission Calculation Documentation	Link to Emission Calculation Workbook	Year of Activity Data	Point Source Component
	2104006000	Residential Natural Gas	Residential_Natural_Gas_2104006000_Documentation.zip	Residential_Natural_Gas_2104006000_Emissions.zip	2006	No
	2104007000	Residential LPG	Residential_LPG_2104007000_Documentation.zip	Residential_LPG_2104007000_Emissions.zip	2006	No
	2104008nnn 2104009000	Residential Wood Combustion and Wax Firelogs	Residential_Wood_Combustion_Documentation.zip	RWC_2008_Toolv4.1_Feb09_2010.zip	Inputs represent various years	No
	2104011000	Residential Kerosene	Residential_Kerosene_2104011000_Documentation.zip	Residential_Kerosene_2104011000_Emissions.zip	2006	No
Solvent Usage - Surface Coatings	2401001000	Architectural Coatings	Solvent_Utilization_Documentation.zip	Surface_Coating_Architectural_Coating_2401001000_Emissions.zip	2008	No
	2401005000	Automobile Refinishing	Solvent_Utilization_Documentation.zip	Surface_Coating_Automobile_Refinishing_2401005000_Emissions.zip	2006	Yes
	2401008000	Traffic Paints	Solvent_Utilization_Documentation.zip	Surface_Coating_Traffic_Painting_2401008000_Emissions.zip	2007	No
	2401015000	Factory Finished Wood	Solvent_Utilization_Documentation.zip	Surface_Coating_Factory_Finished_Wood_2401015000_Emissions.zip	2006	Yes
	2401020000	Wood Furniture and Fixtures	Solvent_Utilization_Documentation.zip	Surface_Coating_Wood_Furniture_and_Fixtures_401020000_Emissions.zip	2006	Yes
	2401025000	Metal Furniture	Solvent_Utilization_Documentation.zip	Surface_Coating_Metal_Furniture_2401025000_Emissions.zip	2006	Yes
	2401030000	Paper, Film and Foil	Solvent_Utilization_Documentation.zip	Surface_Coating_Paper_Film_and_Foil_2401030000_Emissions.zip	2006	Yes
	2401040000	Metal Cans	Solvent_Utilization_Documentation.zip	Surface_Coating_Metal_Can_Coating_2401040000_Emissions.zip	2006	Yes
	2401045000	Metal Sheet, Strip and Coils	Solvent_Utilization_Documentation.zip	Surface_Coating_Metal_Sheet_Strip_Coil_2401045000_Emissions.zip	2006	Yes
	2401055000	Machinery and Equipment	Solvent_Utilization_Documentation.zip	Surface_Coating_Machinery_and_Equipment_2401055000_Emissions.zip	2006	Yes
	2401060000	Appliances	Solvent_Utilization_Documentation.zip	Surface_Coating_Appliances_2401060000_Emissions.zip	2006	Yes

Source Category	Source Classification Code(s)	Source Classification Code Description	Link to Emission Calculation Documentation	Link to Emission Calculation Workbook	Year of Activity Data	Point Source Component
	2401065000	Electronic and Other Electrical Coatings	Solvent_Utilization_Documentation.zip	Surface_Coating_Electronic_and_Other_Electrical_Coatings_2401065000_Emissions.zip	2006	Yes
	2401070000	Motor Vehicles	Solvent_Utilization_Documentation.zip	Surface_Coating_Motor_Vehicles_2401070000_Emissions.zip	2006	Yes
	2401075000	Aircraft	Solvent_Utilization_Documentation.zip	Surface_Coating_Aircraft_2401075000_Emissions.zip	2006	Yes
	2401080000	Marine coatings	Solvent_Utilization_Documentation.zip	Surface_Coating_Marine_Coatings_2401080000_Emissions.zip	2006	Yes
	2401085000	Railroads	Solvent_Utilization_Documentation.zip	Surface_Coating_Railroad_2401085000_Emissions.zip	2006	No
	2401090000	Misc. Manufacturing	Solvent_Utilization_Documentation.zip	Surface_Coating_Misc_Manufacturing_2401090000_Emissions.zip	2006	Yes
	2401100000	Industrial Maintenance Coatings	Solvent_Utilization_Documentation.zip	Surface_Coating_Industrial_Maintenance_Coating_2401100000_Emissions.zip	2008	No
	2401200000	Other Special Purpose Coatings	Solvent_Utilization_Documentation.zip	Surface_Coating_Other_Special_Purpose_Coating_2401200000_Emissions.zip	2008	No
Solvent Usage - Other	2415000000	Cleaning Products: Industrial and Institutional	Solvent_Utilization_Documentation.zip	Cleaning_Products_Industrial_and_Institutional_2415000000_Emissions.zip	2006	Yes
	2420000000	Dry Cleaning	Solvent_Utilization_Documentation.zip	Dry_Cleaning_2420000000_Emissions.zip	2006	No
	2425000000	Graphic Arts	Solvent_Utilization_Documentation.zip	Graphic_Arts_2425000000_Emissions.zip	2006	Yes
	2460100000	Consumer & Commercial - Personal Care Products (Cosmetics and Toiletries)	Solvent_Utilization_Documentation.zip	Consumer_Solvents-Personal_Care_Products_(Cosmetics_and_Toiletries)_2460100000_Emissions.zip	2008	No
	2460200000	Consumer & Commercial - Household Cleaning Products	Solvent_Utilization_Documentation.zip	Consumer_Solvents-Household_Cleaning_Products_2460200000_Emissions.zip	2008	No
	2460400000	Consumer & Commercial - Automotive Aftermarket	Solvent_Utilization_Documentation.zip	Consumer_SolventsAutomotive_Aftermarket_2460400000_Emissions.zip	2008	No

Source Category	Source Classification Code(s)	Source Classification Code Description	Link to Emission Calculation Documentation	Link to Emission Calculation Workbook	Year of Activity Data	Point Source Component
	2460500000	Consumer & Commercial - Coatings and Related Products	Solvent_Utilization_Documentation.zip	Consumer_SolventsCoatings_and_Related_Products_2460500000_Emissions.zip	2008	No
	2460600000	Consumer & Commercial - Adhesives and Sealants	Solvent_Utilization_Documentation.zip	Consumer_Solvents-Adhesives_and_Sealants_2460600000_Emissions.zip	2008	No
	2460800000	Consumer & Commercial - FIFRA Regulated Products	Solvent_Utilization_Documentation.zip	Consumer_Solvents_FIFRA_Regulated_Products_2460800000_Emissions	2008	No
	2460900000	Consumer & Commercial - Misc. Products	Solvent_Utilization_Documentation.zip	Consumer_Solvents-Misc_Products_2460900000_Emissions.zip	2008	No

a. Adjustment of NEI Data to Reflect 2007 Activity Levels[7]

When the 2008 nonpoint source NEI reflected 2007 activity data, TranSystems incorporated the 2008 NEI emission estimates as the default SEMAP area source inventory. When a source category's NEI data reflected 2006 or 2008 emissions activity data, TranSystems updated the NEI estimates to reflect 2007 emission activity levels. Table II-3 documents these specific adjustments.

For many area source categories, emissions activity data are not available at the county-level. In these cases, county-level emissions are estimated using two sets of activity data: one set reflecting state or regional-level emissions activity (e.g., volume of natural gas consumed by the residential sector in each state), and the other set representing data that are used to allocate emissions activity to the county-level (e.g., number of houses using natural gas as the primary heating fuel in each county). Specifically, the "Backcasting or Forecasting Methodology" column in Table II-3 presents the approach used to update emissions activity data to represent 2007, and the "County Allocation Method" column identifies the approach used to update the county allocation data. As noted in Table II-3, all county allocation data were not updated to 2007. These data were not updated because of the level-of-effort that would be involved, and the fact that these data are generally not expected to differ significantly from year-to-year.

b. Adjustment of NEI Data to Remove Activity Reflected in the Point Source Inventory

To prevent double-counting of emissions in the stationary point source and area source emissions inventories, it was necessary to perform point source subtractions on some of the source categories in the TranSystems default area source inventory. To facilitate the point source subtractions, TranSystems prepared crosswalks that link area SCCs to point SCCs. These crosswalks are presented in Appendix A. The general point source subtraction approach consisted of the following steps:

1. Compile 2007 point source emissions and control efficiency data provided by each state for the applicable point SCCs.
2. Identify potential quality assurance issues for S/L agency review;
3. Revise control efficiency data to incorporate S/L agency comments;
4. Back-calculate 2007 uncontrolled point source emissions from reported emissions and control efficiency data -- e.g., 40 tpy of controlled NO_x emissions and 80 percent control efficiency = 50 tpy of uncontrolled NO_x emissions.
5. Sum the emissions for each record from step 4 to the state-level to yield state total uncontrolled point source emissions by pollutant.
6. For each pollutant and state, compute the fraction of <u>total</u> 2007 state-level emissions in the 2007 TranSystems default inventory represented by area sources (using step 5 total <u>point source</u> uncontrolled emissions).
7. Multiply the emission estimates in the draft base year inventory by the appropriate percentages in step 6 to yield area source emissions.

TranSystems performed the point source subtractions at the state- rather than county-level because of the uncertainty associated with the NEI county emission allocations in that actual county-level emissions activity data are generally not available (i.e., a surrogate indicator such as employment is typically used to allocate state-level activity to counties).[8] Although the final inventory reflected Georgia's request to perform Georgia's point source subtractions at the county-level, Georgia's revised final inventory reflects subtractions at the state-level.

[7] In addition, TranSystems incorporated silt content inputs provided by Alabama for updated NEI-based emissions estimation calculations used for the residential and nonresidential construction dust categories (SCCs 2311010000 and 2311020000).
[8] Efforts to perform subtractions at the county-level commonly result in negative emission estimates.

Table II-3. Methods for Updating 2008 NEI Estimates that Are Not Based on 2007 Emissions Activity

Source Category	Source Classification Code(s)	Source Classification Code Description	Year of Activity Data	Backcasting or Forecasting Methodology	Is Update Actual Activity Data?	Geographic Resolution of Backcast/ Forecast Data	County Allocation Method	Point Source Component
Asphalt Paving	2461021000	Cutback Asphalt	2008	Recalculated using 2007 asphalt usage	Yes	State	Allocated using 2007 county VMT	No
	2461022000	Emulsified Asphalt	2008	Recalculated using 2007 asphalt usage	Yes	State	Allocated using 2007 county VMT	No
Aviation Gasoline Distribution: Stage I	2501080050	Aviation Gasoline: Stage I	2008	Recalculated using 2007 AvGas consumption	Yes	National	Allocated to district-level according to AvGas consumption reported for each Petroleum Administration District and then to county-level using 2008 LTO data for general aviation flights	No
Aviation Gasoline Distribution: Stage II	2501080100	Aviation Gasoline: Stage II	2008	Recalculated using 2007 AvGas consumption	Yes	National	Allocated to district-level according to AvGas consumption reported for each Petroleum Administration District and then to county-level using 2008 LTO data for general aviation flights	No
Commercial Cooking	2302002nnn 2302003nnn	Commercial Cooking	2008	Recalculated using 2007 population estimates	Yes	County		No
Construction Dust	2311010000	Residential Construction	2008	Recalculated surface soil estimate using new privately owned housing units started in 2007 (all other activity data reflects 2007)	Yes	Regional	Allocated to county using 2007 annual housing units	Yes
	2311020000	Non-Residential Construction	2008	Recalculated using 2007 value of construction put in place	Yes	National	Did not revise the county allocation (based on 2006 non-residential construction employment)	Yes
	2311030000	Road Construction	2006	Recalculated using 2007 FHWA capital outlays	Yes	State	NEI county allocation data (number of building starts) are 2007	No
Gasoline Distribution	25010110nn 25010120nn	Portable Fuel Containers	2008	Estimated 2007 using a linear fit between 2002 and 2010 emissions	N/A	County	This is the same procedure used to estimate 2008 estimates for NEI	No
	2501050120	Gasoline Distribution Stage I; Bulk Terminals	2008	Recalculated using 2007 national volume of wholesale gasoline supplied	Yes	National	Allocated to state-level using 2007 refinery, bulk terminal, and natural gas plant stocks of motor gasoline and then to county-level using 2007 County Business Patterns for NAICS code 42471	Yes
	2501055120	Gasoline Distribution Stage I; Bulk Plants	2008	Recalculated using EIA's estimate of 2007 finished motor gasoline supplied	No	National	Allocated to county-level using 2007 County Business Patterns for NAICS code 42471	Yes
	2501060100	Gasoline Distribution Stage II;	2008	Applied county-level VMT ratio:	Yes	County		Yes

Source Category	Source Classification Code(s)	Source Classification Code Description	Year of Activity Data	Backcasting or Forecasting Methodology	Is Update Actual Activity Data?	Geographic Resolution of Backcast/ Forecast Data	County Allocation Method	Point Source Component
		Gasoline Service Stations		VMT from 2007 NMIM run : VMT from 2008 NMIM run*				
	2501060201	Gasoline Distribution Stage I; Underground storage tank, breathing and emptying	2008	Applied county-level CO2 emissions ratio: CO2 emissions from 2007 NMIM run : CO2 emissions from 2008 NMIM run	No	County		Yes
	2505030120	Gasoline Distribution Stage I; Tank Trucks in Transit	2008	Applied county-level CO2 emissions ratio: CO2 emissions from 2007 NMIM run : CO2 emissions from 2008 NMIM run	No	County		Yes
	2505040120	Gasoline Distribution Stage 1; Pipelines	2008	Recalculated using 2007 national volume of wholesale gasoline supplied	Yes	National	Allocated to PAD-level using 2007 finished motor gasoline moved by pipeline in each PAD in 2007 and then to county-level using 2007 County Business Patterns for NAICS code 42471	No
Open Burning	2610000100	Open Burning - Yard Waste - Leaves	2008	Recalculated using 2007 population estimate	Yes	County		No
	2610000400	Open Burning - Yard Waste - Brush	2008	Recalculated using 2007 population estimate	Yes	County		No
	2610030000	Open Burning - Household Waste	2008	Recalculated using 2007 population estimate	Yes	County		No
Publicly Owned Treatment Works (POTW)	2630020000	Publicly Owned Treatment Works (POTW)	2008	Estimated 2007 using a linear fit between 2004 and 2010 POTW flow rates. Allocate to county-level using 2007 population.	Yes	National	This is the same procedure used to estimate 2008 estimates for NEI. Allocated to county-level using 2007 population estimate.	Yes
Residential Heating	2104001000	Residential Anthracite Coal	2006	Recalculated using 2007 coal consumption data and 2007 ratio of anthracite to bituminous coal consumption	Yes	State	County allocation based on 2000 Census data	No
	2104002000	Residential Bituminous Coal	2006	Recalculated using 2007 coal consumption data and 2007 ratio of anthracite to bituminous coal consumption	Yes	State	County allocation based on 2000 Census data	No
	2104004000	Residential Distillate Oil	2006	Recalculated using 2007 distillate oil consumption	Yes	State	County allocation based on 2000 Census data	No
	2104006000	Residential Natural Gas	2006	Recalculated using 2007 natural gas consumption	Yes	State	County allocation based on 2000 Census data	No

Source Category	Source Classification Code(s)	Source Classification Code Description	Year of Activity Data	Backcasting or Forecasting Methodology	Is Update Actual Activity Data?	Geographic Resolution of Backcast/ Forecast Data	County Allocation Method	Point Source Component
	2104007000	Residential LPG	2006	Recalculated using 2007 LPG consumption	Yes	State	County allocation based on 2000 Census data	No
	2104011000	Residential Kerosene	2006	Recalculated using 2007 kerosene consumption	Yes	State	County allocation based on 2000 Census data	No
Solvent Usage - Surface Coatings	2401001000	Architectural Coatings	2008	Recalculated using 2007 population estimate	Yes	County		No
	2401005000	Automobile Refinishing	2006	Recalculated using 2007 employment data	Yes	County		Yes
	2401015000	Factory Finished Wood	2006	Recalculated using 2007 employment data	Yes	County		Yes
	2401020000	Wood Furniture and Fixtures	2006	Recalculated using 2007 employment data	Yes	County		Yes
	2401025000	Metal Furniture	2006	Recalculated using 2007 employment data	Yes	County		Yes
	2401030000	Paper, Film and Foil	2006	Recalculated using 2007 employment data	Yes	County		Yes
	2401040000	Metal Cans	2006	Recalculated using 2007 employment data	Yes	County		Yes
	2401045000	Metal Sheet, Strip and Coils	2006	Recalculated using 2007 employment data	Yes	County		Yes
	2401055000	Machinery and Equipment	2006	Recalculated using 2007 employment data	Yes	County		Yes
	2401060000	Appliances	2006	Recalculated using 2007 employment data	Yes	County		Yes
	2401065000	Electronic and Other Electrical Coatings	2006	Recalculated using 2007 employment data	Yes	County		Yes
	2401070000	Motor Vehicles	2006	Recalculated using 2007 employment data	Yes	County		Yes
	2401075000	Aircraft	2006	Recalculated using 2007 employment data	Yes	County		Yes
	2401080000	Marine coatings	2006	Recalculated using 2007 employment data	Yes	County		Yes
	2401085000	Railroads	2006	Recalculated using 2007 employment data	Yes	County		No
	2401090000	Misc. Manufacturing	2006	Recalculated using 2007 employment data	Yes	County		Yes
	2401100000	Industrial Maintenance Coatings	2008	Recalculated using 2007 population estimate	Yes	County		No

Source Category	Source Classification Code(s)	Source Classification Code Description	Year of Activity Data	Backcasting or Forecasting Methodology	Is Update Actual Activity Data?	Geographic Resolution of Backcast/ Forecast Data	County Allocation Method	Point Source Component
	2401200000	Other Special Purpose Coatings	2008	Recalculated using 2007 population estimate	Yes	County		No
Solvent Usage - Other	2415000000	Cleaning Products: Industrial and Institutional	2006	Recalculated using 2007 employment data	Yes	County		Yes
	2420000000	Dry Cleaning	2006	Recalculated using 2007 employment data	Yes	County		No
	2425000000	Graphic Arts	2006	Recalculated using 2007 employment data	Yes	County		Yes
	2460100000	Consumer & Commercial - Personal Care Products (Cosmetics and Toiletries)	2008	Recalculated using 2007 population estimate	Yes	County		No
	2460200000	Consumer & Commercial - Household Cleaning Products	2008	Recalculated using 2007 population estimate	Yes	County		No
	2460400000	Consumer & Commercial - Automotive Aftermarket	2008	Recalculated using 2007 population estimate	Yes	County		No
	2460500000	Consumer & Commercial - Coatings and Related Products	2008	Recalculated using 2007 population estimate	Yes	County		No
	2460600000	Consumer & Commercial - Adhesives and Sealants	2008	Recalculated using 2007 population estimate	Yes	County		No
	2460800000	Consumer & Commercial - FIFRA Regulated Products	2008	Recalculated using 2007 population estimate	Yes	County		No
	2460900000	Consumer & Commercial - Misc. Products	2008	Recalculated using 2007 population estimate	Yes	County		No

*Note that Stage II gasoline refueling VOC emissions were revised from the emissions reported in the final version of the 2007 SEMAP inventory, using updated 2007/2008 VMT adjustment factor ratios. The updated ratios reflect incorporation of the 2007 VMT data that was used as input to MOVES onroad mobile source emissions modeling runs.

As a final step, TranSystems set post-subtraction PM2.5-PRI emissions equal to PM10-PRI emissions in cases where the initial post-subtraction emissions indicated that PM2.5-PRI emissions were greater than PM10-PRI emissions.

Because of the inconsistent reporting of throughput data in the SEMAP point source inventory, throughput data were used in the point source subtraction procedure in only a limited number of cases. These cases are listed below in Table II-4. For these areas/SCCs, all pollutants' total emissions are adjusted by the same percentage. For a few area source categories, it was necessary to incorporate source category-specific point source subtraction procedures. Appendix A summarizes the specific point source subtraction approaches for these source categories.

Table II-4. Throughput-Based Area Source Emission Adjustments

Area	SCC	Area Source %
Jefferson County, KY	2102008000	95.66
South Carolina	2102002000	25.35
	2102004000	0.00
	2102005000	0.00
	2102006000	21.33
	2102007000	0.00
	2102008000	43.40
	2103004000	93.14
	2103006000	94.10
	2103007000	99.84
Knox County, TN	2102006000	76.71
	2103006000	99.13
Tennessee - Rest of State	2103008000	49.36
	2401015000	94.40

2. Estimation of Area Source Emissions from Industrial and Commercial/Institutional Fuel Combustion

In early 2010, the 2008 NEI data for the ICI fuel combustion categories represented total *emission activity* estimates, rather than area source *emission* estimates. Because emission estimates were not available and because of the relative importance of this category, TranSystems recommended that 2007 ICI combustion area source emission estimates be developed as part of this project. This section documents the emission inventory development methodology that TranSystems used in preparing 2007 year ICI fuel combustion area source emission estimates for the SESARM states. The following are elements of the methodology that provide improvements over the 2008 NEI methodology:

- Obtained Industrial and Commercial/Institutional energy consumption by fuel type and SESARM state for the year 2007 from the Energy Information Administration (EIA)'s State Energy Data System (SEDS) – the 2008 NEI used 2006 year data;

- Obtained geographic- and year-specific estimates of non-fuel use consumption of industrial energy from the 2006 Manufacturing Energy Consumption Survey (MECS) – the 2008 NEI used data from the 2002 MECS survey;

- Applied a county allocation procedure that reflects the energy-intensity of each industrial sector – the 2008 NEI methods only reflect the number of employees in each sector; and

- Updated SO_2 emission factors to reflect coal sulfur content estimates for coal used in the industrial sector in 2007 – a recent review of industrial coal sulfur content values concluded that the NEI values are based on unrepresentative data (Pechan, 2009b).

Table II-5 identifies the SCCs for which TranSystems prepared ICI fuel combustion area source emission estimates. The key data inputs in the emissions estimation methodology are:

1. Total Industrial and total Commercial/Institutional energy consumption by fuel type and SESARM state for the year 2007;
2. Estimates of the percentage of total ICI distillate fuel and liquefied petroleum gas (LPG) consumption from stationary sources;
3. Industrial energy consumption used for non-fuel purposes by fuel type and state in 2006;
4. ICI energy consumption by fuel type for point sources by SESARM state in year 2007;
5. Emission factors relating emission rates to volume of energy consumed by fuel type for the ICI sectors;
6. Sulfur content of coal consumed in the ICI sectors by state in year 2007;
7. County-level Industrial sector energy consumption estimates by state for year 2007; and
8. County-level Commercial/Institutional sector employment by state for the year 2006.[9]

Table II.5. ICI Fuel Combustion Area Source Classification Codes

SCC	DESCRIPTION
2102001000	Stationary Source Fuel Combustion; Industrial; Anthracite Coal; Total: All Boiler Types
2102002000	Stationary Source Fuel Combustion; Industrial; Bituminous/Subbituminous Coal; Total: All Boiler Types
2102004000	Stationary Source Fuel Combustion; Industrial; Distillate Oil; Total: Boilers and IC Engines
2102005000	Stationary Source Fuel Combustion; Industrial; Residual Oil; Total: All Boiler Types
2102006000	Stationary Source Fuel Combustion; Industrial; Natural Gas; Total: Boilers and IC Engines
2102007000	Stationary Source Fuel Combustion; Industrial; Liquid Petroleum Gas; Total: All Boiler Types
2102008000	Stationary Source Fuel Combustion; Industrial; Wood; Total: All Boiler Types
2102011000	Stationary Source Fuel Combustion; Industrial; Kerosene; Total: All Boiler Types
2103001000	Stationary Source Fuel Combustion; Commercial/Institutional; Anthracite Coal; Total: All Boiler Types
2103002000	Stationary Source Fuel Combustion; Commercial/Institutional; Bituminous/Subbituminous Coal; Total: All Boiler Types
2103004000	Stationary Source Fuel Combustion; Commercial/Institutional; Distillate Oil; Total: Boilers and IC Engines
2103005000	Stationary Source Fuel Combustion; Commercial/Institutional; Residual Oil; Total: All Boiler Types
2103006000	Stationary Source Fuel Combustion; Commercial/Institutional; Natural Gas; Total: Boilers and IC Engines
2103007000	Stationary Source Fuel Combustion; Commercial/Institutional; Liquid Petroleum Gas; Total: All Combustor Types
2103008000	Stationary Source Fuel Combustion; Commercial/Institutional; Wood; Total: All Boiler Types
2103011000	Stationary Source Fuel Combustion; Commercial/Institutional; Kerosene; Total: All Combustor Types

[9] To conserve project resources, Pechan relied on 2006 employment data compiled in support of the 2008 NEI rather than develop 2007 employment data (note that year-to-year county employment proportions are expected to remain relatively constant).

The following sections describe the methodology/data source(s) for developing each of these data inputs, and the source(s) of information for each of these data elements. In selecting the information sources for each of these data elements, TranSystems evaluated the completeness, representativeness, comparability, and accuracy criteria identified in the Quality Assurance Project Plan (QAPP) for this project. For example, information sources that provide data specific to the source category/geography/inventory period were selected over those that were less specific.

a. Total ICI Energy Consumption

For total Industrial and total Commercial/Institutional energy consumption by fuel type/state, TranSystems primarily used the same source that EPA uses in developing ICI combustion emission estimates for the NEI –EIA's SEDS (EIA, 2009a). The SEDS provides total energy consumption estimates by sector, state, fuel type, and year. To facilitate use with the criteria pollutant emission factors, TranSystems compiled the SEDS energy consumption data in both sets of units provided by the EIA: physical units and British thermal units (Btus). For estimates of industrial distillate consumption, TranSystems relied on estimates reported in EIA's "Fuel Oil and Kerosene Sales" (EIA, 2009b). This source is preferred over the SEDS data because it provides additional sectoral detail that is needed to perform the stationary source energy consumption adjustments described below.

b. Stationary Source Energy Consumption

To avoid double-counting with energy consumption accounted for in mobile source inventories, it was necessary to adjust 2007 year SEDS distillate and LPG consumption estimates for mobile source fuel consumption. For LPG, the adjustments account for energy consumption reflected in the nonroad mobile sector. The adjustments were performed by subtracting estimated proportions of total Industrial sector and Commercial sector consumption computed from a national NONROAD model run. TranSystems compiled national LPG consumption estimates for relevant SCCs from a 2006 run of EPA's NONROAD model (a 2006 run was performed in support of the NEI—it is not anticipated that the percentages differ considerably between 2006 and 2007). Table II-6 identifies a complete list of nonroad SCCs associated with Industrial and Commercial sector LPG. The shaded entries in this table indicate where NONROAD reports LPG consumption. This procedure estimates that nonroad mobile sources account for 9 percent of Industrial sector, and 18 percent of Commercial sector LPG consumption. The SEDS LPG consumption estimates for each state/sector were adjusted downward using these percentages.

For distillate oil, it was necessary to remove energy consumption reflected in onroad/nonroad mobile source emission inventories. To facilitate this step, TranSystems used more detailed distillate fuel consumption estimates reported in EIA's "Fuel Oil and Kerosene Sales," and stationary source fuel consumption percentage assumptions used in the regulatory impact analysis for EPA's nonroad diesel emissions rulemaking (EPA, 2003a). Table II-7 displays the assumptions that were applied to the state-level Industrial sector distillate fuel consumption estimates reported in "Fuel Oil and Kerosene Sales" to estimate Industrial sector stationary source consumption. Table II-8 identifies the assumptions that were applied to estimate total stationary source Commercial/Institutional sector consumption.

Table II-6. LPG Nonroad Mobile Source Classification Codes

SCC	Description_2	Description_3	Description_4
		Industrial Sector	
2267002000	LPG	Construction and Mining Equipment	All
2267002003	LPG	Construction and Mining Equipment	Pavers
2267002006	LPG	Construction and Mining Equipment	Tampers/Rammers
2267002009	LPG	Construction and Mining Equipment	Plate Compactors
2267002015	LPG	Construction and Mining Equipment	Rollers
2267002018	LPG	Construction and Mining Equipment	Scrapers
2267002021	LPG	Construction and Mining Equipment	Paving Equipment
2267002024	LPG	Construction and Mining Equipment	Surfacing Equipment
2267002027	LPG	Construction and Mining Equipment	Signal Boards/Light Plants
2267002030	LPG	Construction and Mining Equipment	Trenchers
2267002033	LPG	Construction and Mining Equipment	Bore/Drill Rigs
2267002036	LPG	Construction and Mining Equipment	Excavators
2267002039	LPG	Construction and Mining Equipment	Concrete/Industrial Saws
2267002042	LPG	Construction and Mining Equipment	Cement and Mortar Mixers
2267002045	LPG	Construction and Mining Equipment	Cranes
2267002048	LPG	Construction and Mining Equipment	Graders
2267002051	LPG	Construction and Mining Equipment	Off-highway Trucks
2267002054	LPG	Construction and Mining Equipment	Crushing/Processing Equipment
2267002057	LPG	Construction and Mining Equipment	Rough Terrain Forklifts
2267002060	LPG	Construction and Mining Equipment	Rubber Tire Loaders
2267002063	LPG	Construction and Mining Equipment	Rubber Tire Tractors/Dozers
2267002066	LPG	Construction and Mining Equipment	Tractors/Loaders/Backhoes
2267002069	LPG	Construction and Mining Equipment	Crawler Tractor/Dozers
2267002072	LPG	Construction and Mining Equipment	Skid Steer Loaders
2267002075	LPG	Construction and Mining Equipment	Off-Highway Tractors
2267002078	LPG	Construction and Mining Equipment	Dumpers/Tenders
2267002081	LPG	Construction and Mining Equipment	Other Construction Equipment
2267003000	LPG	Industrial Equipment	All
2267003010	LPG	Industrial Equipment	Aerial Lifts
2267003020	LPG	Industrial Equipment	Forklifts
2267003030	LPG	Industrial Equipment	Sweepers/Scrubbers
2267003040	LPG	Industrial Equipment	Other General Industrial Equipment

SCC	Description_2	Description_3	Description_4
2267003050	LPG	Industrial Equipment	Other Material Handling Equipment
2267003060	LPG	Industrial Equipment	AC\Refrigeration
2267003070	LPG	Industrial Equipment	Terminal Tractors
2267005000	LPG	Agricultural Equipment	All
2267005010	LPG	Agricultural Equipment	2-Wheel Tractors
2267005015	LPG	Agricultural Equipment	Agricultural Tractors
2267005020	LPG	Agricultural Equipment	Combines
2267005025	LPG	Agricultural Equipment	Balers
2267005030	LPG	Agricultural Equipment	Agricultural Mowers
2267005035	LPG	Agricultural Equipment	Sprayers
2267005040	LPG	Agricultural Equipment	Tillers >6 HP
2267005045	LPG	Agricultural Equipment	Swathers
2267005050	LPG	Agricultural Equipment	Hydro-power Units
2267005055	LPG	Agricultural Equipment	Other Agricultural Equipment
2267005060	LPG	Agricultural Equipment	Irrigation Sets
2267007000	LPG	Logging Equipment	All
2267007005	LPG	Logging Equipment	Chain Saws > 6 HP
2267007010	LPG	Logging Equipment	Shredders > 6 HP
2267007015	LPG	Logging Equipment	Forest Eqp – Feller/Bunch/Skidder
2267009000	LPG	Underground Mining Equipment	All
2267009010	LPG	Underground Mining Equipment	Other Underground Mining Equipment
2267010000	LPG	Industrial Equipment	All
2267010010	LPG	Industrial Equipment	Other Oil Field Equipment
Commercial Sector			
2267004011	LPG	Lawn and Garden Equipment	Lawn Mowers (Commercial)
2267004016	LPG	Lawn and Garden Equipment	Rotary Tillers < 6 HP (Commercial)
2267004021	LPG	Lawn and Garden Equipment	Chain Saws < 6 HP (Commercial)
2267004026	LPG	Lawn and Garden Equipment	Trimmers/Edgers/Brush Cutters (Commercial)
2267004031	LPG	Lawn and Garden Equipment	Leafblowers/Vacuums (Commercial)
2267004036	LPG	Lawn and Garden Equipment	Snowblowers (Commercial)
2267004041	LPG	Lawn and Garden Equipment	Rear Engine Riding Mowers (Commercial)
2267004046	LPG	Lawn and Garden Equipment	Front Mowers (Commercial)
2267004051	LPG	Lawn and Garden Equipment	Shredders < 6 HP (Commercial)
2267004056	LPG	Lawn and Garden Equipment	Lawn and Garden Tractors (Commercial)
2267004061	LPG	Lawn and Garden Equipment	Wood Splitters (Commercial)
2267004066	LPG	Lawn and Garden Equipment	Chippers/Stump Grinders (Commercial)

SCC	Description_2	Description_3	Description_4
2267004071	LPG	Lawn and Garden Equipment	Turf Equipment (Commercial)
2267004076	LPG	Lawn and Garden Equipment	Other Lawn and Garden Equipment (Commercial)
2267006000	LPG	Commercial Equipment	All
2267006005	LPG	Commercial Equipment	Generator Sets
2267006010	LPG	Commercial Equipment	Pumps
2267006015	LPG	Commercial Equipment	Air Compressors
2267006020	LPG	Commercial Equipment	Gas Compressors
2267006025	LPG	Commercial Equipment	Welders
2267006030	LPG	Commercial Equipment	Pressure Washers
2267006035	LPG	Commercial Equipment	Hydro-power Units
2267008000	LPG	Airport Ground Support Equipment	All
2267008005	LPG	Airport Ground Support Equipment	Airport Ground Support Equipment

Note: EPA's NONROAD model reports emissions/fuel consumption for the shaded entries.

Table II-7. Assumptions Used to Estimate Industrial Sector Stationary Source Distillate Fuel Consumption

Sector	Distillate Fuel Type	% of Total Consumption from Stationary Sources
Industrial	No. 1 Distillate Fuel Oil	60
	No. 2 Distillate Fuel Oil	100
	No. 2 Distillate/Low and High Sulfur Diesel	15[a]
	No. 4 Distillate Fuel Oil	100
Farm	Diesel	0
	Other Distillate Fuel Oil	100
Off-Highway (Construction and Other)	Distillate Fuel Oil	5
Oil Company	Distillate Fuel Oil	50

[a] This value differs from the 0 percent assumption adopted in EPA's nonroad diesel emissions rulemaking because it is known that some diesel fuel is used by stationary sources (a 15 percent value was selected for use as an approximate mid-point of a potential range of 8 to 24 percent stationary source use computed from a review of national data from the EIA's *Manufacturing Energy Consumption Survey* and "Fuel Oil and Kerosene Sales").

Table II-8. Assumptions Used to Estimate Commercial/Institutional Sector Stationary Source Distillate Fuel Consumption

Sector	Distillate Fuel Type	% of Total Consumption from Stationary Sources
Commercial	No. 1 Distillate Fuel Oil	80
	No. 2 Distillate Fuel Oil	100
	No. 2 Distillate/Ultra-Low, Low, and High Sulfur Diesel	0[a]
	No. 4 Distillate Fuel Oil	100

[a] A very small portion of total commercial/institutional diesel is actually consumed by point sources (SCC 203001xx).

c. Non-Fuel Energy Consumption

Some Industrial sector energy is consumed for non-fuel purposes. For example, natural gas is used as a feedstock in chemical manufacturing plants and to make nitrogenous fertilizer, and LPG is used to create intermediate products that are made into plastics. To estimate the volume of fuel that is associated with ICI combustion, it is necessary to subtract the volume of fuel consumption for non-energy uses from the volume of total fuel consumption. The EPA's State Inventory Tool (SIT) provides national defaults representing the percentage of total Industrial fuel consumption from non-energy uses. These default values have an additional limitation beyond their lack of geographic detail - they represent the EIA's definition of the Industrial sector, which includes fuel use that is accounted for in other inventory source categories (e.g., Farm, Mining, Construction, and Commercial sectors fuel use that is accounted for in the nonroad inventory). Because of these limitations, TranSystems used regional non-fuel use percentages computed from energy consumption data from the EIA's *2006 Manufacturing Energy Consumption Survey* (MECS) for all fuel types (EIA, 2009c).

There are two reasons why MECS provides a more representative data set for use in this project: (1) MECS provides data specific to the region of interest; and (2) MECS focuses solely on the Manufacturing sector. The latter

characteristic is particularly important for fuel types which consume significant amounts of non-Manufacturing sector energy that is already included elsewhere (e.g., distillate fuel used by the Construction sector, which is included in the nonroad inventory). The MECS non-fuel consumption data treat coal that is used to produce coke as a feedstock (Lorenz, 2009). However, available data indicate that only four of the SESARM states produce coke (Alabama, Kentucky, Virginia, West Virginia; EIA, 2008a) and coke combustion is not included in the area source emissions inventory. Because of this, TranSystems estimated the percent energy consumption from non-fuel use for SESARM states without coke plants by subtracting the coal used in the primary metals industrial subsector (NAICS code 331*) from the MECS coal dataset. More than 97 percent of coking coal is ultimately consumed in this subsector (Lorenz, 2009). Table II-9 presents the non-fuel use percentages by type of energy.

Table II-9. Industrial Sector Energy Consumption from Non-Fuel Uses

Energy Type	2006 MECS % Energy Consumption from Non-Fuel Use	
	South[1]	National
Residual	30%	20%
Distillate	12%	12%
Natural Gas	11%	7%
LPG/NGL	99%	97%
Coal (excludes coking coal)	9%	6%

Sources: EIA, 2009c and Lorenz, 2009.
[1] All SESARM states are in the South region.

d. Emission Factors

Table II-10 presents the criteria pollutant emission factors that TranSystems used in calculating ICI combustion area source emissions. Except as noted below, all criteria air pollutant emission factors are from an EPA database used to prepare the 2008 nonpoint source NEI (Huntley, 2009).[10] Wood combustion emission factors are from *AP-42* (EPA, 2003b). Because there are no NH_3 emission factors for ICI fuel combustion available in the 2008 NEI emission factor database, *AP-42,* or EPA's WebFIRE, TranSystems used emission factors reported in an NH_3 emissions Emission Inventory Improvement Program (EIIP) guidance document (Pechan, 2004).

[10] All criteria pollutant emission factors were rounded to two decimal places.

Table II-10. Criteria Pollutant Emission Factors for ICI Combustion Area Source Categories

SCC	Description	Emission Factor Units[1]	VOC	NO_x	CO	SO_2	PM2.5-FIL	PM10-FIL	PM-CON	NH_3
2102001000	Industrial Anthracite Coal	lb/ton	0.3	9	0.6	39 * S%	0.48 * A%	1.1 * A%	0.08	0.03
2102002000	Industrial Bitum/Subbitum Coal	lb/ton	0.05	11	5	38 * S%	1.4	12	1.04	0.03
2102004000	Industrial Distillate Oil	lb/1000 gal	0.2	20	5	142 * S%	0.25	1	1.3	0.8
2102005000	Industrial Residual Oil	lb/1000 gal	0.28	55	5	157 * S%	4.67 * (1.12 * S% + 0.37)	7.17 * (1.12 * S% + 0.37)	1.5	0.8
2102006000	Industrial Natural Gas	lb/MMcf	5.5	100	84	0.6	0.11	0.2	0.32	0.49
2102007000	Industrial LPG [2]	lb/1000 bbl	21.9	398	502	2.39	0.438	0.797	1.275	1.95
2102008000	Industrial Wood [3]	lb/MMBtu	0.017	0.22	0.6	0.025	0.43	0.5	0.017	0.007[4]
2102011000	Industrial Kerosene	lb/1000 gal	0.19	19.29	4.82	142 * S%	0.24	0.96	1.25	0.771
2103001000	Comm/Inst Anthracite Coal	lb/ton	0.3	9	0.6	39 * S%	0.48 * A%	1.1 * A%	0.08 * A%	0.03
2103002000	Comm/Inst Bitum/Subbitum Coal	lb/ton	0.05	11	5	38 * S%	1.4	12	1.04	0.03
2103004000	Comm/Inst Distillate Oil	lb/1000 gal	0.34	20	5	142 * S%	0.83	1.08	1.3	0.8
2103005000	Comm/Inst Residual Oil	lb/1000 gal	1.13	55	5	157 * S%	1.92 * (1.12 * S% + 0.37)	5.17 * (1.12 * S% + 0.37)	1.5	0.8
2103006000	Comm/Inst Natural Gas	lb/MMcf	5.5	100	84	0.6	0.11	0.2	0.32	0.49
2103007000	Comm/Inst LPG	lb/1000 bbl	21.9	398	502	2.39	0.438	0.797	1.275	1.95
2103008000	Comm/Inst Wood [3]	lb/MMBtu	0.017	0.22	0.6	0.025	0.43	0.5	0.017	0.005[4]
2103011000	Comm/Inst Kerosene	lb/1000 gal	0.33	19.29	4.82	142 * S%	0.8	1.04	1.25	0.771

Source: Unless otherwise noted, 2008 nonpoint source NEI (Huntley, 2009).

Notes: [1] lb = pound; ton = short ton; gal = gallon; MMcf = million cubic feet; MMBtu = million British thermal units; bbl = barrels; S = sulfur content; A = ash content

[2] Emission factors from Commercial/Institutional LPG.

[3] Emission factors from *AP-42*, Section 1.6, Wood Residue Combustion in Boilers (EPA, 2003b).

[4] Emission factor from Pechan, 2004 (converted from lb/ton using 0.08 ton/MMBtu for Industrial sector and 0.0625 ton/MMBtu for Commercial sector).

With a few notable exceptions, the 2008 NEI emission factors are the same as those used for the 2002 NEI.[11] The PM emission factors for natural gas and LPG combustion are the major exceptions. Because the 2002 emission factors were deemed too high because of artifact formation in the test method (method 202) during stack testing, EPA developed a set of SCC-specific adjustment factors to apply to the 2002 NEI to better reflect PM emissions from these fuels.[12] In preparation for the 2008 NEI, EPA developed revised natural gas PM emission factors by applying these adjustment factors to the 2002 NEI emission factors. Revised emission factors for LPG were computed by applying appropriate conversion factors to the updated natural gas emission factors.

e. Coal Sulfur and Ash Content

For a recent ICI combustion area source inventory project for the Central Regional Air Planning Association (CENRAP), TranSystems evaluated the reliability of various data sources for coal sulfur content to be used to estimate emissions in that project. TranSystems evaluated five potential data sources:

1. 2002 CENRAP state point source inventories;
2. U.S. Geological Survey (USGS)'s U.S. Coal Quality Database;
3. Energy Information Administration (EIA)'s "Cost and Quality of Fuels for Electric Plants 2002 and 2003."
4. EIA's "EIA-423 - Monthly Nonutility Fuel Receipts and Fuel Quality Data, 2002;" and
5. EIA's "Quarterly Coal Report, January–March 2003."

TranSystems evaluated these coal sulfur content data sources with respect to two specific criteria identified in the QAPP for this project: representativeness and accuracy. Based on these evaluations, TranSystems used the average sulfur content data from EIA's "Quarterly Coal Report" to estimate the sulfur content of both Industrial and Commercial/Institutional sector bituminous/subbituminous coal in each SESARM state (EIA, 2008b). Even though this source does not report whether the coal is bituminous/subbituminous or anthracite, it is appropriate to treat the values for this source as representative of bituminous/subbituminous coal because anthracite accounts for only a very small proportion of coal consumption in SESARM states.

Due to the lack of available data for anthracite coal, TranSystems used the average ash content (13.38 percent) and sulfur content (0.89 percent) from the 2002 NEI for the Industrial and Commercial/Institutional sectors. These percentages are based on the composition of anthracite coal seams in Pennsylvania, where all anthracite coal imported by SESARM states originated in 2007 (EIA, 2008c). Tables II-11 and II-12 report the coal ash and/or sulfur content values that were used in calculating ICI combustion area source emissions for the 2007 base year inventory.

[11] The 2002 NEI documentation provides citations to the *AP-42* source for each emission factor.
[12] These factors reduce PM emissions by more than 90 percent.

Table II-11. Bituminous/Subbituminous Coal Sulfur Content for 2007 ICI Combustion

State	Industrial Coal[1] Sulfur Content (%)	Commercial/ Institutional Coal[2] Sulfur Content (%)
Alabama	0.94	0.94
Florida	0.87	0.87
Georgia	0.95	0.95
Kentucky	0.89	0.89
Mississippi	2.01	2.01
South Carolina	1.10	1.10
North Carolina	0.90	0.90
Tennessee	1.21	1.21
Virginia	0.96	0.96
West Virginia	0.95	0.95

[1]Reflects the average from coal received in 2007.
[2]Assumes that coal burned in the Commercial/Institutional sector has the same composition as coal burned in the Industrial sector.

Table II-12. Anthracite Coal Ash and Sulfur Content for 2007 ICI Combustion

State	Industrial		Commercial/Institutional	
	Ash Content (%)	Sulfur Content (%)	Ash Content (%)	Sulfur Content (%)
Alabama	13.38	0.89	13.38	0.89
Florida	13.38	0.89	13.38	0.89
Georgia	13.38	0.89	13.38	0.89
Kentucky	13.38	0.89	13.38	0.89
Mississippi	13.38	0.89	13.38	0.89
South Carolina	13.38	0.89	13.38	0.89
North Carolina	13.38	0.89	13.38	0.89
Tennessee	13.38	0.89	13.38	0.89
Virginia	13.38	0.89	13.38	0.89
West Virginia	13.38	0.89	13.38	0.89

f. County Allocation Data

After computing state-level area source emissions using the data described above, the next step is to allocate these emissions to individual counties. Separate allocation approaches were implemented for the Industrial and Commercial/Institutional sectors. For Commercial/Institutional sector source categories, the approach relies on county employment data compiled from government sources. For Industrial sector source categories, the approach utilizes county-level Industrial sector energy consumption estimates developed in this effort.

Commercial/Institutional

Because SEDS data originate from EIA fuel sector-specific surveys of energy suppliers,[13] TranSystems reviewed these survey forms/instructions for further details on what SEDS considers Commercial sector use of each fuel. This review found that the surveys/guidance do not always provide further clarity. In addition, the EIA has admitted that energy suppliers may use their own account classifications as well as EIA guidance in determining whether a particular account belongs in the Residential, Commercial, Industrial, or Transportation sector. The only source of NAICS-code based EIA definitions of the Commercial energy sector is a "rough crosswalk" between Commercial building types and NAICS codes developed for EIA's Commercial Building Energy Consumption Survey (CBECS). With the exception of NAICS code 814 (Private Households), this crosswalk links all NAICS codes between 42 and 92 with Commercial building energy consumption. Employment data for the CBECS-identified NAICS codes (42 though 92 with exception of 814) were used to allocate SEDS energy consumption data to individual counties. TranSystems used private sector 2006 employment data from *County Business Patterns* (CBP) and public sector 2006 employment data from the *Census of Governments* (Census, 2009a; and Census, 2009b) because these data were already compiled in support of the 2008 NEI (year-to-year changes in county employment proportions are expected to be minimal).

Industrial

Unlike the Commercial sector, documentation provides a clear listing of the NAICS codes associated with SEDS Industrial energy consumption data: "the industrial sector encompasses the following types of activity: Manufacturing (NAICS codes 31–33); Agriculture, Forestry, Fishing and Hunting (NAICS code 11); Mining, including Oil and Gas Extraction (NAICS code 21); and Construction (NAICS code 23)." As noted earlier, a portion of Industrial sector consumption (Agriculture, Mining and Construction) is already accounted for in other emission inventory sectors and was removed. Therefore, TranSystems did not expand the list of NAICS codes used to represent the area source Industrial fuel combustion category beyond the Manufacturing sector NAICS codes (31-33).

Employment-based county allocation methods lead to overrepresentation of energy consumption in counties with sectors that have high employment but low energy intensities (measured on a Btu per employee basis), and vice-versa. Given that Manufacturing sectors have much greater energy intensity variability than Commercial/Institutional sectors, TranSystems utilized energy use per employee values by NAICS code to improve upon the employment-based county allocation approach used in the 2008 NEI for the Industrial fuel combustion category. This procedure relied on 2007 national energy consumption data by NAICS code as reported by EIA in *Annual Energy Outlook* (EIA, 2009d). Energy intensity values were computed by dividing these Btu-based energy consumption estimates by NAICS code-level 2007 national employment data. The resulting intensity values were then multiplied by county/NAICS code-level employment estimates from CBP to estimate total county energy consumption by NAICS code. These values were then summed for the appropriate Industrial fuel combustion NAICS codes. The resulting county-level total Industrial energy consumption estimates were used to apportion state-level area source Industrial fuel combustion emissions to each county.

[13] For natural gas, for example – EIA-176 "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Estimation of Withheld Employment Data

Due to concerns with releasing confidential business information, the CBP withholds values for a given county/NAICS code if it would be possible to identify individual businesses from these values. In such cases, the CBP reports a letter code, representing a particular employment size range. TranSystems used the following procedure to estimate data for withheld counties/NAICS codes.

1. County-level employment for counties with reported values are totaled by state for the applicable NAICS code.
2. Value from step 1 is subtracted from the state employment value for the NAICS code.
3. Each of the withheld counties is assigned an initial employment estimate reflecting the midpoint of the CBP range code (e.g., code A, which reflects 1-19 employees, is assigned an estimate of 10 employees).
4. The initial employment estimates from step 3 are then summed to the state level.
5. The value from step 2 is divided by the value from step 4 to yield an adjustment factor to apply to the initial employment estimates to yield employment values that will sum to the state employment total for the applicable NAICS code.
6. The final county-level employment values are estimated by multiplying the initial employment estimates from step 3 by the step 5 adjustment factors.

Example: NAICS 31-33 (Manufacturing) in Maine

fipsstate	fipscty	naics	empflag	emp
23	001	31----		6,774
23	003	31----		3,124
23	005	31----		10,333
23	007	31----		1,786
23	009	31----		1,954
23	011	31----		2,535
23	013	31----		1,418
23	015	31----	F	0
23	017	31----		2,888
23	019	31----		4,522
23	021	31----		948
23	023	31----	I	0
23	025	31----		4,322
23	027	31----		1,434
23	029	31----		1,014
23	031	31----		9,749

1. The total of employees not including counties 015 and 023 is 52,801.
2. The state-level CBP reports 59,322 employees in NAICS 31—the difference is 6,521.
3. County 015 is given a midpoint of 1,750 (since range code F is 1,000-2,499) and County 023 is given a midpoint of 17,500.
4. State total for these two counties is 19,250.
5. 6,521/19,250 = 0.33875.

The final employment estimate for county 015 is 1,750 * 0.33875 = 593. The county 023 final employment estimate is computed as 17,500 * 0.33875 = 5,928.

3. Estimation of Area Source Emissions from Residential Wood Combustion

Residential wood combustion was calculated using the EPA's Residential Wood Combustion (RWC) Tool. The tool uses the following equation to estimate RWC emissions:

Emissions = (Number of wood-burning appliances) x (Cords of wood burned per appliance) x (Density of wood burned) x (Emission factor)

A review of the spatial distribution of SESARM region $PM_{2.5}$ emissions from the tool indicated much higher emissions in urbanized areas than rural areas. Although there is reason to expect some correlation between the number of occupied housing units and residential wood combustion emissions, this correlation would be expected to be fairly weak because of at least two factors. The first factor is that housing units in urbanized areas generally have greater access to natural gas as a heating fuel, and therefore, would be expected to have a greater penetration of natural gas fireplaces than rural areas. The second factor is that the access to inexpensive wood supplies would be expected to be much greater in rural areas (and related to this, the proportion of housing units with wood-burning appliances that are used as primary heating units – i.e., woodstoves, outdoor hydronic heaters, pellet stoves – would also be expected to be greater in rural areas). Review of several wood consumption surveys, including the latest survey from Minnesota, also showed a clear trend in households in urbanized areas consuming less wood than their counterparts in rural areas.

Based on this review, SESARM, with primary assistance from Tracy Anderson of the Alabama Department of Environmental Management, examined the EPA Tool's default assumptions for the first two variables in the RWC emissions estimation equation. The following describes the specific refinements that SESARM incorporated into a revised RWC Tool for these two variables.

<u>Number of Wood-Burning Appliances</u>
SESARM incorporated updates to the estimated number of the following types of wood-burning appliances:

- Fireplaces;
- Fireplace Insert Uncertified;
- Fireplace Insert EPA Certified Catalytic;
- Fireplace Insert EPA Certified Non-catalytic;
- Woodstove Uncertified;
- Woodstove EPA Certified Catalytic;
- Woodstove EPA Certified Non-catalytic; and
- Fireplaces Burning Wax Logs.

For these equipment types, the EPA's RWC tool estimates the number of wood-burning appliances in each county by multiplying the county's number of occupied housing units by an appropriate wood-burning appliance profile.

Where possible, SESARM first updated the occupied housing unit estimates in the Tool. The Tool estimates the number of occupied housing units by multiplying each county's total number of housing units in 2007, as reported by the U.S. Census Bureau, by the county-level occupancy rate in 2000 (last year of occupancy rate data available from the Census). For select counties (primarily those with large populations), the Census' American Community Survey (ACS) reports estimates of the 2007 year number of occupied housing units. Several states use the ACS data and indicated a preference for its use. Therefore, SESARM updated the EPA tool to use the ACS' housing unit estimates for counties where these data were available.

A second type of update involved revisions to the wood-burning appliance profiles. Appliance profiles represent the fraction of occupied housing units that have each of the wood-burning appliances listed above. The appliance profiles were developed from the number of wood burning appliances and number of occupied housing units data

compiled from the U.S. Census Bureau's "American Housing Survey" (AHS). The RWC Tool applies appliance profiles to one or more geographic locations. The Tool includes a set of Metropolitan Statistical Area (MSA)-specific appliance profiles and regional default appliance profiles (Northeast, Midwest, South, and West). Based on new information gathered from these surveys, SESARM calculated 12 additional appliance profiles to better characterize the wood-burning appliance population. These profiles are as follows:

1) A default urban appliance profile based on national urban values reported by the 2005 National AHS,
2) "Sub-MSA" area profiles for each of the following MSAs:
    a. Birmingham, AL;
    b. Miami-Dade County, FL;
    c. Urban Atlanta, GA;
    d. Kenton County, KY;
    e. De Soto County, MS;
    f. Gaston County, NC;
    g. Mecklenburg County, NC;
    h. York County, SC;
    i. Shelby County, TN;
    j. Fairfax County, VA; and
    k. Urban Norfolk-Virginia Beach-Newport News area, VA.

These sub-MSA appliance profiles were developed using the "sub-area" sections of the original Metropolitan Areas AHS used in the RWC tool. In keeping with EPA's MSA appliance profile assignment approach, SESARM assigned the sub-MSA profiles only to the counties to which they applied.

SESARM developed a default urban appliance profile in an attempt to better characterize wood-burning equipment populations in urbanized areas for which the AHS does not report MSA-specific data. This profile reflects national average wood-burning appliance information from the 2005 National AHS. The next step was to develop a set of criteria for determining what counties should be assigned the applicable regional average appliance profile (South), and which would be assigned the new national urban appliance profile. Figure 1 shows the decision tree that SESEARM developed to assign each of these two appliance profiles.

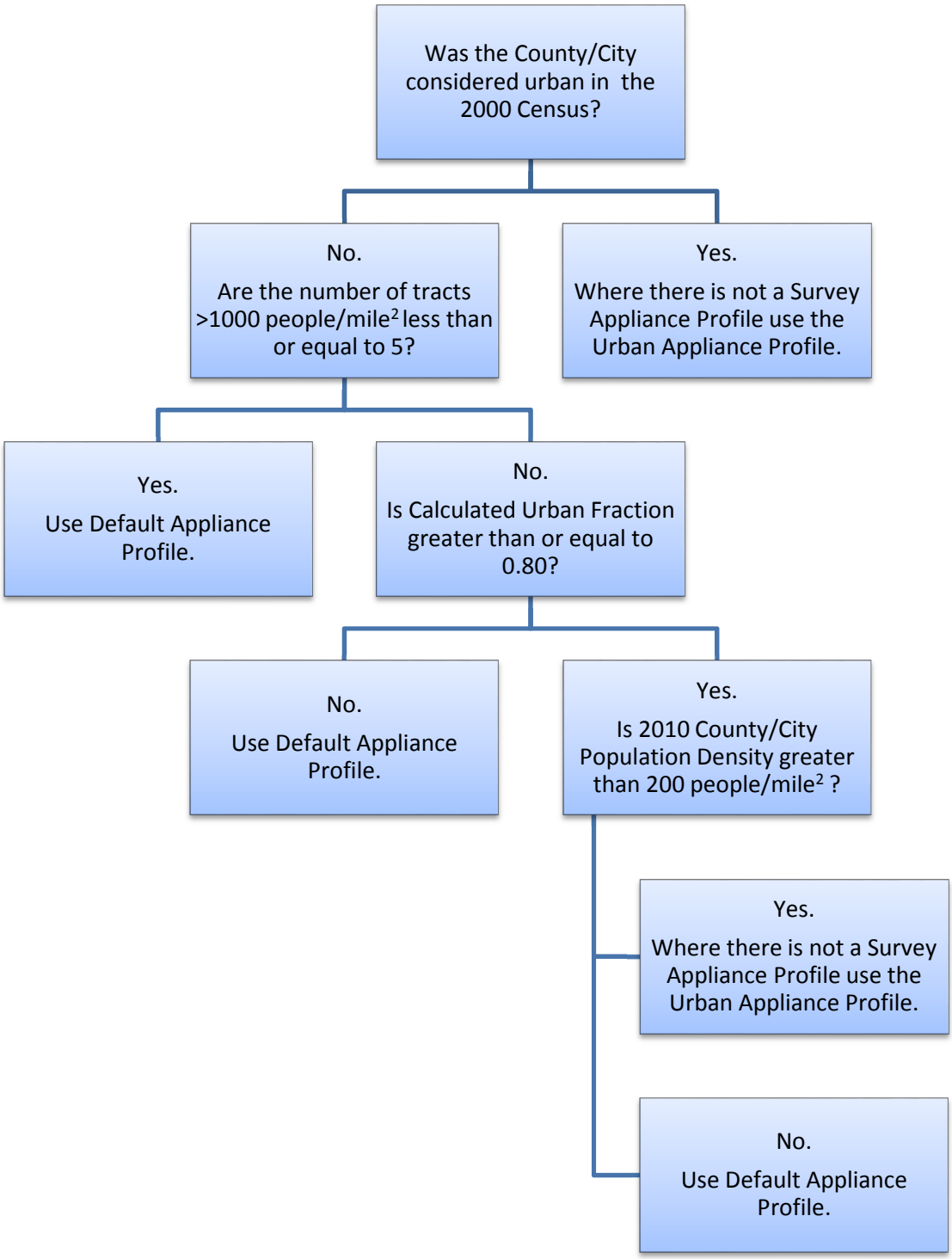

Figure 1. Decision Tree for Assigning Regional Average (Default) or National Urban Appliance Profile

The above does not address the estimated count of the following wood-burning appliance types:

- Pellet stoves;
- Indoor furnaces; and
- Hydronic heaters (also known as outdoor wood boilers).

The estimates for these equipment types are hard-coded into the RWC Tool. After review of the EPA's appliance count estimation methods for these units, SESARM decided that the estimates for these appliances should also be updated.

In the case of pellet stoves and hydronic heaters, the RWC Tool allocates regional (pellet stoves) or state-level (hydronic heater) counts of each appliance type. The RWC Tool utilizes estimates of the number of each type of equipment as calculated from cumulative sales data. The Tool then allocates these regional/state estimates to counties based on the proportion of regional/state number of woodstoves in each county. Because SESARM's revised RWC Tool includes updated county-level woodstove population estimates, consistency with EPA's methodology requires re-allocating the estimated number of regional/state pellet stoves and hydronic heaters to each county using the updated woodstove data incorporated into the revised Tool.

The RWC Tool estimates the number of wood-burning indoor furnaces by multiplying the estimated number of woodstoves in each county by a factor. The EPA calculated this factor (0.53) from data on the number of woodstoves and indoor furnaces used for main heating in climate zones 1-3. To be consistent with the RWC Tool methods for estimating indoor furnaces, SESARM updated the indoor furnace appliance counts by multiplying the revised number of woodstoves in each county by the 0.53 factor.

<u>Cords of Wood Burned per Appliance</u>

SESARM also incorporated new burn rate profiles that characterize the amount of wood burned in each type of appliance. As with the appliance profiles, burn rate profiles can be assigned to one or more geographical areas. The EPA's RWC Tool included burn rate profiles that were developed and refined by EPA using survey data from the U.S. Forest Service's North Central region as the starting point. The EPA adjusted these data based on the ratio of energy consumption in the surveyed climate to energy consumption in other areas of the country. For example, if the energy consumption in climate zone 5 (the warmest climate zone) was half of the energy consumption in climate zone 1 (the surveyed climate zone), burn rates in climate zone 5 were estimated to be 50 percent of the burn rates in climate zone 1. The energy consumption data for these adjustments was obtained from the Energy Information Administration (EIA)'s 2005 Residential Energy Consumption Survey (RECS).

SESARM compiled 2005 RECS data to refine the EPA's burn rates, by computing the average cords of wood burned per household for each of three categories: Rural, Urban (sum of cities, towns, and suburbs), and Total. SESARM then calculated two ratios: Rural to Total wood consumption per household (1.563); and Urban to Total wood consumption per household (0.537). These ratios were then applied to the existing burn rate profiles to create new Rural and Urban burn rate profiles for each of the SESARM region climate zones—2, 3, 4, and 5. After the appropriate calculations were performed the new burn rate profiles were developed by adding either an "r" for Rural or "u" for urban to the original RWC tool default burn rate profile number. They are as follows:

1. Climate zone 2 : Nu and Nr
2. Climate zone 3 : 3Au and 3Ar
3. Climate zone 4 : 4u and 4r
4. Climate zone 5 : 5u and 5r

The next step in refining the burn rate information was to identify the criteria for assigning the Rural, Urban, and overall average burn rates (the original tool burn rate for a given climate zone) to each county within a climate zone. SESEARM developed these criteria, which are represented in Figure 2.

After implementing the appliance profile and burn rate refinements, SESARM developed emission summary comparisons of EPA's default RWC Tool versus the Tool updated by ADEM. These comparisons were submitted for State//Local agency review and comment. The following identify the revisions that were implemented based on comments supplied by S/L agencies:

- West Virginia revised the burn rate profiles in the following counties:
  - Berkeley – from default to urban;
  - Fayette – from rural to default; and
  - Jefferson – from rural to default.

It should also be noted that Shelby County, Tennessee directed SESARM to utilize Local agency RWC emissions in place of the RWC Tool emissions.

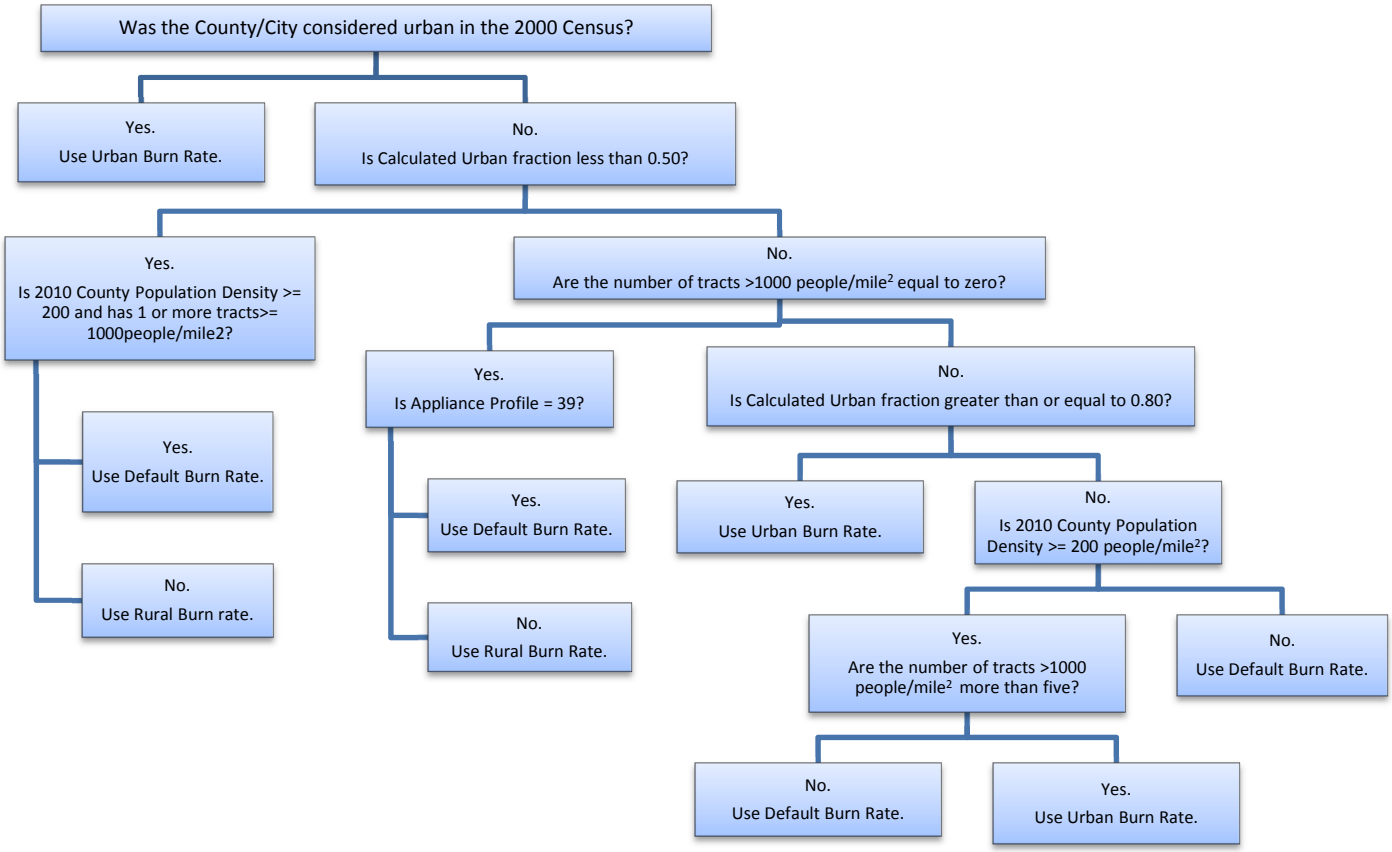

Figure 2. Decision Tree for Assigning Average (Default), Urban, or Rural Burn Profiles

4. Estimation of Area Source Emissions from Gasoline Service Stations/Stage I

TranSystems estimated stage I gasoline service station emissions using the NEI methodology referenced in Table II-2. To improve emission estimates, TranSystems prepared a proposed set of key Stage I gasoline service station emission calculation parameter values for review by S/L agencies: (a) county-level gasoline throughput values; (b) emission control parameter values; and (c) county/month-level Reid vapor pressure (RVP) values. TranSystems specifically requested that agencies provide any updates they have to these values, including updates to the following control information: (a) filling technologies used (splash, submerged, and balanced submerged); (b) the rule effectiveness of S/L requirements for submerged and/or balanced submerged filling; (c) the rule penetration (RP) for submerged and/or balanced submerged filling; and (d) the control efficiency of balanced submerged filling. The RP value represents the proportion of throughput that is filled using submerged/balanced submerged filling, while the remaining proportion is assumed to be splash filling. In keeping with past NEI practice, the default rule effectiveness assumption was 100 percent (rule effectiveness is an adjustment to reflect any assumed non-compliance with the requirements of a regulation). The default control efficiency for balanced submerged filling was 90 percent for all SESARM counties (control efficiency is the percentage of a source category's emissions that is controlled by a control device). There is no control efficiency for submerged filling because the emission reduction effects of submerged filling are accounted for in the emission estimation equation (via a submerged-filling specific saturation factor) rather than a post-emission estimation adjustment.

TranSystems reviewed all updated parameter values supplied by S/L agencies, provided follow-up questions/data requests to ensure the completeness and validity of the data, and incorporated any updated Stage I emission calculation parameter values provided by agencies. TranSystems prepared revised base year stage I gasoline service station VOC emission estimates using the agency-supplied values and provided S/L agencies with spreadsheets comparing the original and revised emission estimates. TranSystems updated the draft revised emission estimates to reflect S/L agency comments, and incorporated the final revised Stage I estimates into the revised final stationary area source inventory.

C. INVENTORY SUPPLEMENTATION/FINAL DATA MERGING

As directed by S/L agencies, TranSystems supplemented 2007 S/L agency supplied emissions data (when supplied) and TranSystems default emissions data with emissions data from the 2002 nonpoint source NEI, or in the case of Georgia, the State's 2005 Consolidated Emissions Reporting Rule (CERR) submittal. To assist agencies that supplied S/L emissions data, TranSystems compiled a list of SCC/pollutant combinations in the S/L area's portion of the 2002 nonpoint source NEI that did not match to combinations in either the S/L agency inventory or TranSystems' default inventory. This list was documented in an Excel worksheet and transmitted along with a request for agencies to identify whether each combination's emissions should be carried forward or grown to 2007 using EGAS growth factors. TranSystems contacted agencies with any necessary follow-up questions to clarify guidance on the NEI supplementation procedure.

To assist agencies that did not supply their own emissions data, TranSystems compiled a list of SCC/pollutant combinations in the state's portion of the 2002 nonpoint source NEI that did not match to combinations in TranSystems default inventory. These lists were documented in an Excel workbook, which also contained a worksheet identifying associated inventory supplementation questions (e.g., "the 2002 NEI reports VOC emissions under Dry Cleaning/Perchloroethylene SCCs—TranSystems default inventory does not include VOC emissions for this SCC because perchloroethylene is no longer considered a VOC by EPA. Please confirm that VOC emissions from these SCCs should not be carried forward/grown"). After reviewing state agency responses to these data merging questions, TranSystems contacted agencies with follow-up questions as necessary to clarify state guidance.

Table II-13 displays the SCC/pollutant combinations for which 2002 nonpoint source NEI emissions were carried forward or grown to 2007 using growth factors from EGAS.[14] Further documenting the data merging procedures are NIF EM table records and the SCC/county-level emission summaries that display a data source code for each record. Table II-14 presents the data source codes used to document the source of each area source emission record. The compiled inventory was converted into EPA's NIF 3.0 nonpoint source file format.[15]

[14] Note that for some SCCs, EGAS did not provide growth factors. In these cases, Pechan used underlying EGAS 5.0 information (i.e., the EGAS Version 5.0 SCC-to-growth indicator crosswalk and economic output data from version 5.5 of the Regional Economic Models, Inc. [REMI] model) to develop growth factors.

[15] Pechan removed throughput data when 2002 nonpoint source NEI data were carried forward,

Table II-13. Summary of Data Carried Forward/Grown From 2002 NEI

Source Classification Code	Source Classification Code Description	Alabama	Florida	Georgia[1]	Kentucky-Rest of State	Mississippi	South Carolina	Tennessee-Rest of State	Virginia	West Virginia
2275085000	Aircraft/Unpaved Airstrips/Total		EGAS	EGAS						
2275900000	Aircraft/Refueling: All Fuels/All Processes ** (Use 25-01-080-xxx)			EGAS						
2301030000	Chemical Manufacturing/Process Emissions from Pharmaceutical Manuf/Total		Carry	EGAS	EGAS			Carry	Carry	Carry
2301040000	Chemical Manufacturing/Fugitive Emissions from Synthetic Organic Chem Manuf/Total		Carry	EGAS		Carry				Carry
2302050000	Food & Kindred Products/Bakery Products/Total	EGAS	EGAS	EGAS		Carry	EGAS			Carry
2302070005	Food & Kindred Products/Fermentation/Beverages/Wineries			EGAS						
2302070010	Food & Kindred Products/Fermentation/Beverages/Distilleries			EGAS						
2305070000	Mineral Processes/Concrete, Gypsum, Plaster Products/Total							Carry		
2306000000	Petroleum Refining/All Processes/Total			EGAS						Carry
2306010000	Petroleum Refining/Asphalt Paving/Roofing Materials/Total							Carry		
2307060000	Wood Products/Misc Wood Products/Total							Carry		
2308000000	Rubber/Plastics/All Processes/Total		Carry					Carry		
2309000000	Fabricated Metals/All Processes/Total							Carry		
2309100010	Fabricated Metals/Coating, Engraving, and Allied Services/Electroplating							Carry		
2309100230	Fabricated Metals/Coating, Engraving, and Allied Services/Alkaline Cleaning							Carry		
2310000000	Oil & Gas Expl & Prod/All Processes/Total: All Processes	EGAS	Carry	EGAS	EGAS	Carry		Carry		Carry
2325000000	Mining &Quarrying/All Processes/Total		Carry	EGAS	EGAS	EGAS	EGAS	Carry	Carry	
2399000000	Industrial Processes: NEC/Industrial Processes: NEC/Total	EGAS	Carry	EGAS	EGAS			Carry		Carry
2401001010	Surface Coating/Architectural Coatings/Primers, Sealers, and Undercoaters							Carry		
2401001050	Surface Coating/Architectural Coatings/All Other Architectural Categories							Carry		
2401005600	Surface Coating/Auto Refinishing/Primers							Carry		
2401005700	Surface Coating/Auto Refinishing/Top Coats							Carry		
2440000000	Misc Industrial/All Processes/Total: All Solvent Types		Carry		EGAS			Carry		
2461800000	Misc Non-industrial: Commercial/Pesticide Applic.: All Processes/Total: All Solvent Types	EGAS	EGAS	EGAS	EGAS	Carry	EGAS			
2461850000	Misc Non-indus: Consumer/Pesticide Application: Agricultural/All Processes			EGAS	EGAS	Carry		Carry		

Source Classification Code	Source Classification Code Description	Alabama	Florida	Georgia[1]	Kentucky-Rest of State	Mississippi	South Carolina	Tennessee-Rest of State	Virginia	West Virginia
2465800000	Misc Non-indus: Consumer/Pesticide Application/Total: All Solvent Types				EGAS			Carry		
2501000090	Petrol & Petrol Product Storage/All Storage Types: Breathing Loss/Distillate Oil							Carry		
2501050090	Petrol & Petrol Product Storage/Bulk Terminals: All Evaporative Losses/Distillate Oil							Carry		
2501050150	Petrol & Petrol Product Storage/Bulk Terminals: All Evaporative Losses/Jet Naphtha							Carry		
2501050180	Petrol & Petrol Product Storage/Bulk Terminals: All Evaporative Losses/Kerosene							Carry		
2501070000	Diesel Service Stations/Total: All Products/All Processes			EGAS						
2501070051	Diesel Service Stations/Stage 1: Submerged Filling		Carry							Carry
2501070052	Diesel Service Stations/Stage 1: Splash Filling									Carry
2501070101	Diesel Service Stations/Stage 2: Displacement Loss/Uncontrolled									Carry
2501070103	Diesel Service Stations/Stage 2: Spillage									Carry
2501070201	Diesel Service Stations/Underground Tank: Breathing and Emptying		Carry							Carry
2510000000	Organic Chemical Storage/All Storage Types: Breathing Loss/Total: All Products							Carry		
2530000020	Bulk Materials Storage/All Storage Types/Cement							Carry		
2530000100	Bulk Materials Storage/All Storage Types/Limestone							Carry		
2530000120	Bulk Materials Storage/All Storage Types/Sand							Carry		
2530050000	Bulk Materials Storage/Bulk Stations/Terminals/Total: All Products							Carry		
2601000000	On-site Incineration/All Categories/Total		Carry							
2601010000	On-site Incineration/Industrial/Total		EGAS	EGAS						
2601020000	On-site Incineration/Commercial/Institutional/Total		EGAS	EGAS	EGAS			Carry		
2620000000	Landfills/All Categories/Total		EGAS							
2620030000	Landfills/Municipal/Total		Carry	EGAS				Carry		Carry
2630020000	Wastewater Treatment/Public Owned/Total Processed							Carry		
2630020001	Wastewater Treatment/Public Owned/Flaring of Gases							Carry		
2640000000	TSDFs/All TSDF Types/Total: All Processes		EGAS	EGAS	EGAS	EGAS		Carry		Carry
2660000000	Leaking Underground Storage Tanks/Leaking Underground Storage Tanks/Total: All Storage Types		EGAS	EGAS						Carry
2801000000	Agric - Crops/Total		Carry	EGAS		Carry	EGAS	Carry	Carry	

Source Classification Code	Source Classification Code Description	Alabama	Florida	Georgia[1]	Kentucky-Rest of State	Mississippi	South Carolina	Tennessee-Rest of State	Virginia	West Virginia
2801000003	Agric - Crops/Tilling		Carry	EGAS	EGAS	Carry	EGAS	Carry	Carry	Carry
2805001000	Agric - Livestock/Beef cattle - finishing operations on feedlots (drylots)/Dust Kicked-up by Hooves		EGAS	EGAS			EGAS			Carry
2810030000	Structure Fires/Unspecified		Carry	EGAS	EGAS	Carry	EGAS	Carry		Carry
2810050000	Motor Vehicle Fires/Unspecified		EGAS	EGAS						Carry
2810060200	Cremation/Animals									
2830000000	Catastrophic/Accidental Releases/All Catastrophic/Accidental Releases/Total		Carry							
2830001000	Catastrophic/Accidental Releases/Industrial Accidents/Total		Carry							
2841000040	Misc Repair Shops/Misc Repair Shops/Soldering Operations							Carry		

[1] TranSystems Default inventory for GA supplemented with EGAS-grown emissions from Georgia's 2005 CERR submission.

Table II-14. Area Source Inventory Data Source Codes

Code	Description
P-07-X-NPT	TranSystems default area source estimate
P-07-X-PT	TranSystems default total source estimate adjusted for point source activity (note that adjustment only occurred if emissions were reported in point source inventory).
N-02-G	2002 nonpoint source NEI estimate grown using EGAS
N-02-F	2002 nonpoint source NEI estimate carried forward (no growth)
S-05-G	2005 Georgia area source CERR submission estimate grown using EGAS
S-07-X	State agency-supplied estimate
L-07-X	Local agency-supplied estimate
L-07-X-VR	Estimated from local agency VOC estimate and TranSystems default inventory derived ratio of pollutant emission factor to VOC emission factor.

D. QA/QC PROCEDURES

In addition to the quality assurance procedures that TranSystems performed on the revised final 2007 stationary area source inventory (e.g., running EPA's NIF QA/Content Checker program to check for referential integrity issues, invalid entries, and out of typical range values), TranSystems quality assured all updates provided by S/L agencies to ensure that they were correctly incorporated into the final inventory, and reviewed the ratios of post-point source subtraction emissions to pre-point source subtraction emissions to confirm that these subtractions were properly implemented.

III. 2007 NONROAD MOBILE SOURCE INVENTORY

The nonroad sector is comprised of nonroad engines included in EPA's NONROAD model, as well as other engines not modeled in NONROAD, including aircraft, commercial marine vessels and locomotives. A 2007 nonroad sector inventory was developed using the following general procedures:

- NONROAD model categories were based on the National Mobile Inventory Model (NMIM2008). SESARM agencies were asked to review the latest 2007 NMIM County Database and provide revisions as needed to the NMIM inputs.
- The aircraft category was based on EPA's 2008 NEI. The 2008 estimates were backcast to 2007, and any state comments were incorporated.
- The commercial marine vessel category was based on EPA's 2008 NEI, adjusted to 2007, and supplemented with any state emissions data.
- The locomotive category was based on draft Class I and Class II/III line haul emissions, as well as draft railyard emissions developed by ERTAC. Passenger and commuter rail emissions were based on EPA's 2002 NEI. State emission estimates were also included.

A more detailed description of how 2007 emissions estimates for all nonroad categories were prepared is provided below.

A. NONROAD MODEL CATEGORIES

NONROAD model categories include equipment such as recreational marine and land-based vehicles, farm, construction and industrial machinery, and lawn and garden equipment. These equipment are powered by compression-ignition engines, which are typically diesel-fueled, as well as spark-ignition or gasoline-fueled engines. Compressed natural gas (CNG) and LPG engines are also included in the NONROAD model. Criteria pollutant emissions may not be reported for all SCCs for all counties in the SESARM region, and will depend on the geographic allocation methods used by the model, or state-specific allocation data.

NMIM2008 incorporates EPA's latest NONROAD model (NONROAD2008) released in April 2009, and reflects all of EPA's final nonroad standards to date. TranSystems first distributed the 2007 year NMIM county-level database (NCD) to SESARM agencies for review and comment. TranSystems prepared a report to accompany nonroad-related tables from the 2007 NCD providing instructions for agencies to provide any updates to these files that may represent S/L/T improvements to the NMIM/NONROAD defaults (Pechan, 2009c). A summary of the tables distributed and comments received from states is provided in Table III-1.

Table III-1. Summary of 2007 NCD Tables and State Comments

NMIM Table	Description	Comments	State(s)
County	County-specific variables	Revised OzoneSeasonStartMonth and OzoneSeasonEndMonth Update Barometric Pressure	AL, SC, VA Jefferson County KY, VA
CountyYearMonthHour	Hourly temps and relative humidity by month and county	Revised temperatures and relative humidity using NCDC data and EPA-prescribed methodology	VA
CountyNRFile	External NONROAD data files	Provided updates to SEASON.DAT file Revised Underground Mining Cty Allocation File	NC WV
CountyYear	Additional external data files (mostly onroad related)	None	
CountyYearMonth	Maps counties to monthly fuel data	Revised county/monthly gasoline profile assignments	GA, KY, Jefferson County KY, NC, SC, Davidson County TN, VA
Gasoline	Gasoline fuel properties	Revised/added gasoline fuel profiles	GA, KY, Jefferson County KY, NC, SC, Davidson Cty TN, VA
Diesel	Diesel sulfur content	Revised Diesel sulfur content	Davidson County, TN
Natural Gas	Natural gas content	None	

Further descriptions of the state data provided and how they were evaluated and used is provided below.

CountyYearMonthHour Table

Virginia provided revised temperatures and relative humidity using National Climatic Data Center (NCDC) data and the EPA-prescribed methodology for stretching hourly averages to capture daily minima and maxima values.

CountyNR Table

North Carolina provided an updated SEASON.DAT file (37000.sea) that changed the seasonal profile assignment for North Carolina from the default Mid-Atlantic region to the Southeast region.

West Virginia provided an updated county allocation file for distributing activity and emissions related to underground mining equipment in their state. This revised county distribution was based on 2007 Underground Coal Production values as reported by the West Virginia's *Office of Miners' Health Safety and Training 2007 Coal Production by County*.

CountyYearMonth, Gasoline, and Diesel Tables

Several states provided revised fuel profile assignments by county, as reflected in changes to the CountyYearMonth table. In many cases, this also involved the creation of new gasoline profiles in the Gasoline table. The revisions submitted primarily related to changes by month for Reid Vapor Pressure (RVP) values as well as gasoline sulfur content. Updates to the oxygenated fuel data were provided for some states as well.

Some states also revised the diesel fuel sulfur content values for 2007. For regional consistency, unless the values were based on actual testing that reflected the diesel sulfur content in use for an area, the NMIM default values of 1218 parts per million (ppm) for land-based equipment 1389 ppm for recreational marine were retained.

Once the inputs to NMIM/NONROAD were quality assured, TranSystems ran NMIM to generate 2007 annual emission estimates for all SESARM states for all nonroad SCCs. Emissions from aircraft ground support equipment are now entirely addressed by the aircraft sector inventory (see discussion under Section III.B of this report).

TranSystems removed emission estimates from the NMIM output for the airport GSE SCCs (i.e., SCCs 2265008005, 2267008005, and 2270008005).

B. AIRCRAFT

Airport-related emission estimates were developed for the following SCCs listed in Table III-2.

Table III-2. Aircraft Source Classification Codes

Description	SCC
Military Aircraft	2275001000
Commercial Aircraft	2275020000
General Aviation - Piston	2275050011
General Aviation - Turbine	2275050012
Air Taxi - Piston	2275060011
Air Taxi - Turbine	2275060012
Auxiliary Power Unit (APU)	2275070000
4-Stroke Gasoline GSE	2265008005
LPG GSE	2267008005
CNG GSE	2268008005
Diesel GSE	2270008005

2007 aircraft emissions were primarily based on EPA's 2008 NEI. The procedures and data for developing aircraft emissions are described in further detail in EPA's 2008 NEI documentation (ERG, 2009a).

For commercial aircraft, the emission estimation methodology relied on airport and aircraft-specific landing and take-off (LTO) data, coupled with mode and aircraft-specific emission rates from the FAA's Emission and Dispersion Modeling System (EDMS). Emissions for ground support equipment (GSE) and auxiliary power units (APUs) associated with commercial air carriers were estimated by EDMS, using operating time defaults based on the type of service performed. LTO data for general aviation and air taxi were obtained from FAA's Terminal Area Forecasts (TAF) and 5010 Forms. This activity was assigned to jet and propeller-driven fractions, and fleet-average emission factors were then applied. Finally, military aircraft activity at civilian and commercial airports was obtained by EPA from FAA's TAF, and these emissions (with a few noted exceptions) were largely included in the 2007 SEMAP. Unless provided by a state or local agency (e.g., Georgia, North Carolina, and Virginia), military aircraft activity and emissions occurring at military facility bases are not accounted for in the SEMAP inventory.

The 2008 emissions and LTO data were back-cast to 2007 using approach operations by airport and aircraft type compiled from the FAA's Air Traffic Activity Data System (ATADS) (FAA, 2010). The airport-level LTOs were assigned to counties and summed for the county. For counties with aircraft emissions without a county match in ATADS, state average growth factors were calculated and applied. The county-level growth factors are not presented in this report, but could be provided to SESARM if requested. The 2007 to 2008 growth factors were developed for each of the six airport source categories. Commercial aircraft, APU, and GSE categories relied on growth factors calculated from commercial air carrier LTOs. General aviation and air taxi were grown using LTO data reported for these specific aviation categories. Military aircraft were held constant from 2008 to 2007.

State-supplied data are summarized in Table III-3. Comments from Alabama, Georgia, and Davidson County, Tennessee related to removing non-operational airports, correcting county assignments for individual airports, or

updating emissions for specific commercial airports. Georgia, North Carolina, and Virginia submitted military aircraft emissions for military bases in their state. In addition, North Carolina provided emissions for military aircraft activity at commercial airports, and also provided diesel GSE emissions associated with all military aircraft. Note that for several North Carolina facilities, EPA had already reported diesel GSE emissions associated with commercial aircraft activity, so state-provided diesel GSE emissions were added to these existing EPA estimates at the SCC level.

Table III-3. Summary of State Updates to Aircraft Category Emissions

State/County	SCC	SCC Description	Pollutants	Comments
Alabama	2275050011	General Aviation Piston	All	Removed emissions for 1 non-operational airport; 1 airport in GA incorrectly assigned to AL county
	2275050012	General Aviation Turbine		
Georgia	2275001000	Military Aircraft	All	Updated emissions for Dobbins Air Reserve Base
	2275007000	Auxiliary Power Unit (APU)	All	Updated emissions for Dobbins Air Reserve Base
	2275050011	General Aviation Piston	All	Made revisions to county assignments for 2 airports
	2275050012	General Aviation Turbine		
	All SCCs	See Table III-2	All	Updated emissions for Atlanta Hartsfield Airport
North Carolina	2275001000	Military Aircraft	All	Added military aircraft emissions at military bases and civilian airports
	2270008005	Diesel Airport GSE		
Davidson County, TN	2275050011	General Aviation Piston	All	Removed emissions for 4 non-operational airports; reassigned 1 airport from Davidson to Rutherford County
	2275050012	General Aviation Turbine		
	2275020000	Commercial Aircraft	All	Updated emissions for Nashville International Airport
	2265008005	Gasoline Airport GSE	All	Updated emissions for Nashville International Airport
	2270008005	Diesel Airport GSE	All	Updated emissions for Nashville International Airport
Virginia	2275001000	Military Aircraft	All but PM-10, PM-2.5, SO2	Added military aircraft emissions for 15 military bases

North Carolina and Georgia provided estimates for all needed pollutants, and Virginia provided estimates for all pollutants, with some exceptions for PM-10 and PM-2.5. Where PM-10 was provided by Virginia for two facilities, we estimated PM-2.5 using a particle size multiplier of 0.669, from Table "Military Aircraft Emission Factors" in Appendix A to EPA 2008 NEI documentation (ERG, 2009a). PM and SO_2 emissions for the remaining military facilities in Virginia were not estimated.

C. COMMERCIAL MARINE VESSELS

Commercial marine vessel emissions are reported under the following SCCs:

- 2280002100 – Diesel, In Port
- 2280002200 – Diesel, Underway
- 2280003100 – Residual, In Port
- 2280003200 – Residual, Underway

For the purpose of the NEI it was assumed that Category 1 and 2 vessels typically use distillate fuels, while Category 3 vessels primarily use residual blends. Category 3 engines are defined as having displacement above 30 liters per cylinder.

2007 CMV emissions were based largely on EPA's 2008 NEI. For Category 1 and 2 engines, national diesel emissions, based on national 2008 fuel sales, were split into near-shore port and underway components. Port emissions were assigned to 150 largest ports using port traffic data per *Waterborne Commerce of the U.S.* For the county allocation procedure, EPA developed a GIS shape file library based on Bureau of Transportation data to more precisely assign port emissions to counties, and to better allocate underway emissions to line segments/counties. This represents an improvement to the spatial allocation procedure used for previous versions of the NEI.

2008 Category 3 CMV estimates were projected from a 2002 hourly modeling inventory developed by EPA's Office of Transportation and Air Quality (OTAQ), and aggregated to an annual basis for the NEI. EPA developed Category 3 inventories for a total of 117 deep sea and inland ports, accounting for 4 different types of near-port emissions, including hotelling, maneuvering, reduced-speed zone, and cruise mode. EPA spatially allocated emissions using GIS shapefiles to specify the geographic locations for each type of near port emissions. Additional details concerning the methodologies are described in EPA's 2008 NEI documentation (ERG, 2009b).

The 2008 CMV estimates were then adjusted to represent 2007. For Category 1 & 2 diesel commercial marine vessels, 2007 emissions were estimated by applying growth factors to the 2008 emissions. National 2007 and 2008 emissions, by pollutant, were used to estimate the growth factors (EPA, 2008a). Emissions were adjusted at a national level because the surrogate data used to estimate county-level emissions for the 2008 NEI actually represent year 2007. Table III-4 shows the growth factors, by pollutant. The PM10-PRI and PM25-PRI growth factor value was also used for NH_3.

Table III-4. Category 1 & CMV Growth Factors, by Pollutant

Pollutant	Growth Factor
CO	1.009
NH_3	1.045
NO_x	1.016
PM10-PRI	1.045
PM25-PRI	1.045
SO_2	1.110
VOC	1.008

To estimate 2007 emissions for Category 3 residual commercial marine vessels, an annual average regional growth rate was applied as a corresponding decrease to the 2008 NEI emissions (EPA, 2008b). A correspondence was developed between the SESARM states and available regional growth rates for the East Coast and Gulf Coast. Table III-5 contains this correspondence along with the growth factor. Counties in the State of Florida were assigned to the two regions as appropriate.

Table III-5. Category 3 CMV Growth Factors, by State and SCC

FIPSST	State	SCC	Region	GF
01	AL	2280003100	Gulf Coast	0.955
01	AL	2280003200	Gulf Coast	0.955
12	FL	2280003100	Gulf Coast	0.955
12	FL	2280003200	Gulf Coast	0.955
12	FL	2280003100	East Coast	0.971
12	FL	2280003200	East Coast	0.971
13	GA	2280003100	East Coast	0.971
13	GA	2280003200	East Coast	0.971
21	KY	2280003100	East Coast	0.971
21	KY	2280003200	East Coast	0.971
28	MS	2280003100	Gulf Coast	0.955
28	MS	2280003200	Gulf Coast	0.955
37	NC	2280003100	East Coast	0.971
37	NC	2280003200	East Coast	0.971
45	SC	2280003100	East Coast	0.971
45	SC	2280003200	East Coast	0.971
47	TN	2280003100	East Coast	0.971
47	TN	2280003200	East Coast	0.971
51	VA	2280003100	East Coast	0.971
51	VA	2280003200	East Coast	0.971
54	WV	2280003100	East Coast	0.971
54	WV	2280003200	East Coast	0.971

State provided data are listed in Table III-6. South Carolina provided a county-level inventory for the port of Charleston for 2005. The 2005 estimates were grown to 2007 using Army Corps of Engineers data on total commodity tonnage handled at the Port of Charleston (ACE, 2010). Davidson County provided a county-level CMV inventory reported under the general SCC 2280000000. Finally, Virginia also provided a military marine emissions inventory, with the exclusion of Coast Guard Vessels, since activity for these ships should be captured by EPA's Category 1 & 2 inventory. The port and underway components of Virginia's marine inventory were assigned to the Residual, In Port and Residual, Underway SCCs, respectively. In counties where EPA had already reported residual port or underway emissions, state-provided military marine emissions were added to these existing EPA estimates at the SCC level. Any necessary pollutant augmentation is described in Table III-6.

Table III-6. Summary of State Updates to Commercial Marine Category Emissions

State/County	SCC	SCC Description	Pollutants	Comments	Additional Revisions
Charleston County, SC	2280002100	Category 1&2 Residual Port	All but NH_3	Removed NEI emissions and added SC supplied emissions for Charleston County, SC.	NH_3 estimated using PM-10 multiplier of 0.00477 (ERG, 2009b)
	2280002200	Category 1&2 Residual Underway	All but NH_3		NH_3 estimated using the ratio of 2008 NEI NH_3/PM-10 emissions for the particular County/SCC.
	2280003100	Category 3 Diesel Port	All but NH_3		NH_3 estimated using PM-10 multiplier of 0.00477 (ERG, 2009b)
	2280003200	Category 3 Diesel Underway	All but NH_3		NH_3 estimated using the ratio of 2008 NEI NH_3/PM-10 emissions for the particular County/SCC.
Davidson County, TN	2280000000	All Commercial Marine	All but PM-10, PM-25 and NH_3	Removed all CMV NEI emissions for Davidson County, TN and added emissions supplied by the county.	PM-10 estimated using emission factor (EPA, 2008a) and fuel consumption (provided by Davidson County, TN). PM-25 estimated using PM-10 multiplier of 0.92 (EPA, 2008a). NH_3 estimated using PM-10 multiplier of 0.00477 (ERG, 2009b)
Shelby County, TN	2280002100	Category 1&2 Residual Port	All	Replaced CMV NEI emissions for Shelby County, TN with emissions supplied by the county.	
	2280002200	Category 1&2 Residual Underway	All but NH_3		Relied on EPA NEI NH_3 emissions
Virginia	2280003100	Category 3 Diesel Port	All but VOC, PM-25, and NH_3	Added military marine emissions	VOC estimated using HC multiplier of 1.053 (EPA, 2008a). PM-25 estimated using PM-10 multiplier of 0.92 (EPA, 2008a). NH_3 estimated using ratio of 2008 NEI NH_3/PM-10 emissions for the particular County/SCC.
	2280003200	Category 3 Diesel Underway	All but VOC, PM-25, and NH_3		VOC estimated using HC multiplier of 1.053 (EPA, 2008a). PM-25 estimated using PM-10 multiplier of 0.92 (EPA, 2008a). NH_3 estimated using ratio of 2008 NEI NH_3/PM-10 emissions for the particular County/SCC.

D. LOCOMOTIVES

Locomotive emissions are reported under the following SCCs:

- 2285002006 – Diesel Class I Line Haul
- 2285002007 – Diesel Class II/III Line Haul
- 2285002008 – Diesel Passenger (Amtrak)
- 2285002009 – Diesel Commuter
- 2285002010 – Diesel Switchyard Locomotives

Class I line haul operations typically account for the majority of fuel consumed and emissions when preparing locomotive inventories. As such, resources should be focused on developing emission estimates for these operations relative to other rail-related operations. However, for some local areas, certain operations related to switchyard activity may also be important.

For Class I line-haul locomotives, emissions are normally calculated by multiplying the amount of fuel consumed in the inventory area by pollutant-specific emission factors. This calculation is performed for each railroad. The results for each railroad are then summed to obtain the total Class I railroad emissions in the inventory area.

For Class I line haul, TranSystems obtained 2007 emission estimates from the Eastern Regional Technical Advisory Committee (ERTAC, 2010a). ERTAC used the Federal Railroad Administration's GIS data to construct a dataset of link-level million gross tons per mile (MGT). Next the Railroad Fuel Consumption Index (RFCI) value was calculated for each railroad, which represents the number of GTM produced per gallon of diesel fuel. When applied to each link's GTM per year, link-based fuel consumption can be calculated. This methodology allows for a more accurate reflection of how GTM are actually concentrated across rail line route miles. Finally, the fuel consumed is multiplied by the various emission factors derived for each Class I rail line to determine link-level emissions for each pollutant. An important aspect is determining the fraction of locomotives that fall under each regulatory "Tier," since each Tier has an increasingly stringent emission rate for pollutants of concern.

A limitation of the link-level MGT data maintained by the FRA is that the data are proprietary and can only be publicly released with the express permission of each Class I railroad. In addition, when the FRA coded the link-level MGT data they did not provide a means for separating out individual MGT contributions for links that are operated by multiple railroad companies. As such, some assumptions were made for these contributions by ERTAC.

Class II/III line haul emissions were also developed and distributed by ERTAC (ERTAC, 2010b). Limited documentation has been developed to describe the procedures used by ERTAC to develop this inventory. Generally, fuel consumption for all Class II/III railroads was obtained from the American Shortline and Regional Railroad Association and assigned to counties using route miles by rail line within each county. An average fuel use factor expressed in gallons per mile was then multiplied by the route miles to estimate fuel consumption by railroad and by county. Class II/III locomotives were all assumed to be uncontrolled with respect to emission rates used for estimating pollutant emissions. Class II/III rail emissions represent calendar year 2008, and as such were back-cast to 2007 using a surrogate growth indicator. A SESARM regional growth factor of 1.438 was developed using 2007 and 2008 total distillate fuel sales/deliveries to railroad consumers which were obtained from the DOE Energy Information Administration State Energy Data (DOE, 2009a).

Passenger and commuter rail line emissions from EPA's 2002 NEI were grown to 2007. For both categories, the growth factor was developed using 2002 and 2007 passenger/commuter fuel use data obtained from the DOE Transportation Energy Data Book (DOE, 2009b). For passenger rail operations, the growth factor value was 0.732. For commuter rail operations, a growth factor of 1.11 was used.

Finally, a switchyard inventory was completed by ERTAC on June 4, 2010 (ERTAC, 2010c). This inventory was compiled at a railyard level by ERTAC, but was summed to a county level for use in the SEMAP 2007 inventory. In general, switcher emissions were estimated using total switcher fuel consumption available from each Class I R-1 report allocated to railyards based on average density code data reported by the Federal Railroad Administration. Documentation describing the specific methodology and data sources used will be forthcoming from ERTAC.

Some state data were provided for the locomotive category. These data are summarized in Table III-7. North Carolina provided a statewide passenger rail inventory for 2007. Davidson County provided a county level inventory comprised of Class I line haul and switchyard activity, reported under the general SCC 2285000000. Shelby County provided an updated Class I line haul, passenger, and yard locomotive inventory for most pollutants. Any needed pollutant augmentation is described in Table III-7.

E. QA/QC PROCEDURES

TranSystems performed the following quality assurance procedures on the final 2007 nonroad sector inventory.

For the NONROAD/NMIM categories, TranSystems quality assured all NCD updates provided by states to ensure consistency with the NCD formats, and for reasonableness. Where questions came up, we coordinated with the appropriate S/L agency. Cross-checks were performed to confirm that state-supplied revisions were correctly incorporated into the NCD. TranSystems compared results with 2007 emission estimates prepared by EPA using a prior version of the NCD. These comparisons were performed to ensure that results changed as expected given the updates made by specific states to the NMIM inputs.

Table III-7. Summary of State Updates to Locomotive Category Emissions

State	SCC	SCC Description	Pollutants	Comments	Additional Revisions
North Carolina	2285002008	Line Haul Locomotives: Passenger Trains (Amtrak)	All but NH_3	Replaced NEI passenger emissions with NC supplied emissions	NH_3 estimated using the ratio of 2008 NEI NH_3/PM-25 emissions for the particular County/SCC.
	2285002007	Line Haul Locomotives: Class II/III Locomotives	All	Removed activity/emissions for several rail lines	
Davidson County, TN	2285000000	All Railroad All Fuels	All but PM-25 and NH_3	Replaced ERTAC rail emissions with Davidson County supplied emissions	PM-25 estimated using PM-10 multiplier of 0.97 (EPA, 2008a). NH_3 estimated using ratio of 2008 NEI NH_3/PM-25 emissions for the particular County/SCC.
Shelby County, TN	2285002006	Line Haul Locomotives: Class I Operations	All but PM-25 and NH_3	Replaced ERTAC rail emissions with Shelby County supplied emissions	Relied on ERTAC emissions for missing pollutants
	2285002008	Line Haul Locomotives: Passenger Trains (Amtrak)	All but NH_3		Relied on SEMAP default emissions for NH3
	2285002010	Yard Locomotives	All		

TranSystems compiled records for the SESARM region from EPA's NEI for aircraft, CMV, and passenger/commuter rail, and obtained Class I and Class II/III line haul, and railyard emission estimates from ERTAC. TranSystems performed and quality assured any needed adjustments to year 2007 (i.e., correct application of growth or backcast factors). Cross-checks were also performed to verify that state-supplied emission estimates were correctly incorporated into the draft inventory. TranSystems also calculated missing pollutants for SCC-level state emission estimates, where emission factors or emission ratios were available.

Emission estimates were converted into EPA's NIF3.0 as a final deliverable. For the NMIM categories, commercial marine, and locomotive, separate database files were prepared for each subsector following EPA's NIF3.0 nonpoint format. Aircraft emission estimates were prepared in EPA's NIF3.0 point source format. EPA's NIF QA Checker program was then run on these final files, and any referential integrity issues and invalid codes were identified and corrected. Finally, data source codes as described in Table III-8 were added to the NIF3.0 files to represent the source of the SCC, county-level emissions data for the final inventory.

Table III-8. Data Source Codes Used for Revised Final 2007 Nonroad Mobile Emission Estimates

Code	Description
P-07-X	TranSystems default
N-02-G	2002 NEI grown
S-07-X	State supplied
S-07-X-PS	State supplied added to TranSystems default
S-05-G	State supplied 2005 grown
L-07-X	Local agency supplied

IV. EMISSIONS SUMMARIES

This section presents the emission summaries for the revised final 2007 stationary area and nonroad mobile emissions inventory for the SEMAP project. In addition to the summaries provided in this section, TranSystems has also provided SESARM with detailed county-level emission summaries in Excel worksheets.

A. STATIONARY AREA SOURCE EMISSIONS

Table IV-1 provides a summary of the final 2007 SESARM area source emissions inventory by the four major area source subsectors. Table IV-2 displays final area source emission estimates by state, as well as the percent contribution of each state to total regional emissions. Similar summaries providing 2007 annual state-level emission estimates for each major area source sector, as well as percent contributions by state, are shown in Tables IV-3 through IV-6.

Table IV-1. Final 2007 SESARM Area Source Emissions by Major Sector

	Pollutant Emissions, TPY						
Category	**SO_2**	**NO_x**	**VOC**	**PM10-PRI**	**PM2.5-PRI**	**CO**	**NH_3**
Combustion	81,876	105,283	28,444	95,946	69,362	273,557	7,901
Solvents			712,961	24	4	0.1	
Fugitive Dust				2,311,660	242,976		
All Other	2,905	11,807	433,868	299,768	109,872	157,631	576,975
All Nonpoint	**84,782**	**117,090**	**1,175,273**	**2,707,398**	**422,214**	**431,188**	**584,876**

Table IV-2. Final 2007 Area Source Emission Estimates by State

State	Pollutant Emissions, TPY						
	SO_2	NO_x	VOC	PM10-PRI	PM2.5-PRI	CO	NH_3
Alabama	431	3,940	79,030	349,981	41,587	15,152	62,426
Florida	11,203	13,014	296,131	340,693	55,515	43,381	33,940
Georgia	4,858	25,552	143,469	652,757	95,801	83,246	86,544
Kentucky	15,590	12,693	75,100	226,829	40,341	55,450	52,332
Mississippi	344	6,091	74,755	326,350	42,758	22,377	58,774
North Carolina	8,365	12,715	152,825	51,678	16,829	47,379	169,440
South Carolina	6,048	9,353	76,838	266,749	39,538	32,208	30,248
Tennessee	14,415	12,418	111,100	215,667	33,948	44,668	35,277
Virginia	17,022	17,740	133,935	176,265	39,034	63,838	43,038
West Virginia	6,504	3,574	32,089	100,429	16,862	23,490	12,858
Total SESARM	**84,782**	**117,090**	**1,175,273**	**2,707,398**	**422,214**	**431,188**	**584,876**

State	Percentage of Regional Total						
	SO_2	NO_x	VOC	PM10-PRI	PM2.5-PRI	CO	NH_3
Alabama	0.5	3.4	6.7	12.9	9.8	3.5	10.7
Florida	13.2	11.1	25.2	12.6	13.1	10.1	5.8
Georgia	5.7	21.8	12.2	24.1	22.7	19.3	14.8
Kentucky	18.4	10.8	6.4	8.4	9.6	12.9	8.9
Mississippi	0.4	5.2	6.4	12.1	10.1	5.2	10.0
North Carolina	9.9	10.9	13.0	1.9	4.0	11.0	29.0
South Carolina	7.1	8.0	6.5	9.9	9.4	7.5	5.2
Tennessee	17.0	10.6	9.5	8.0	8.0	10.4	6.0
Virginia	20.1	15.2	11.4	6.5	9.2	14.8	7.4
West Virginia	7.7	3.1	2.7	3.7	4.0	5.4	2.2
Total SESARM	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table IV-3. Final 2007 Combustion Emission Estimates by State

State	Pollutant Emissions, TPY						
	SO_2	NO_x	VOC	PM10-PRI	PM2.5-PRI	CO	NH_3
Alabama	376	3,490	1,903	1,400	1,391	11,257	449
Florida	11,032	12,163	2,421	27,419	19,713	29,097	585
Georgia	4,528	23,648	2,751	14,118	14,092	59,474	1,851
Kentucky	15,250	11,287	3,892	13,006	8,573	31,102	670
Mississippi	206	5,274	1,238	1,074	1,043	9,933	307
North Carolina	8,090	11,534	4,313	4,795	4,394	29,963	910
South Carolina	5,900	8,480	1,743	10,510	7,926	18,699	427
Tennessee	14,058	10,853	2,929	12,756	2,521	25,816	833
Virginia	16,061	15,569	5,270	8,142	7,358	43,205	1,443
West Virginia	6,376	2,985	1,984	2,728	2,354	15,012	424
Total SESARM	**81,876**	**105,283**	**28,444**	**95,946**	**69,362**	**273,557**	**7,901**

State	Percentage of Regional Total						
	SO_2	NO_x	VOC	PM10-PRI	PM2.5-PRI	CO	NH_3
Alabama	0.5	3.3	6.7	1.5	2.0	4.1	5.7
Florida	13.5	11.6	8.5	28.6	28.4	10.6	7.4
Georgia	5.5	22.5	9.7	14.7	20.3	21.7	23.4
Kentucky	18.6	10.7	13.7	13.6	12.4	11.4	8.5
Mississippi	0.3	5.0	4.4	1.1	1.5	3.6	3.9
North Carolina	9.9	11.0	15.2	5.0	6.3	11.0	11.5
South Carolina	7.2	8.1	6.1	11.0	11.4	6.8	5.4
Tennessee	17.2	10.3	10.3	13.3	3.6	9.4	10.5
Virginia	19.6	14.8	18.5	8.5	10.6	15.8	18.3
West Virginia	7.8	2.8	7.0	2.8	3.4	5.5	5.4
Total SESARM	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table IV-4. Final 2007 Solvent Emission Estimates by State

State	Pollutant Emissions, TPY						
	SO_2	NO_x	VOC	PM10-PRI	PM2.5-PRI	CO	NH_3
Alabama			54,760				
Florida			164,244				
Georgia			86,349				
Kentucky			45,697	1	1		
Mississippi			42,797				
North Carolina			113,623			0.1	
South Carolina			38,952				
Tennessee			63,279	22	4		
Virginia			89,798				
West Virginia			13,463				
Total SESARM			**712,961**	**24**	**4**	**0.1**	

State	Percentage of Regional Total						
	SO_2	NO_x	VOC	PM10-PRI	PM2.5-PRI	CO	NH_3
Alabama			7.7	0.0	0.0	0.0	
Florida			23.0	0.0	0.0	0.0	
Georgia			12.1	0.0	0.0	0.0	
Kentucky			6.4	5.0	16.5	0.0	
Mississippi			6.0	0.0	0.0	0.0	
North Carolina			15.9	0.0	0.0	100.0	
South Carolina			5.5	0.0	0.0	0.0	
Tennessee			8.9	95.0	83.5	0.0	
Virginia			12.6	0.0	0.0	0.0	
West Virginia			1.9	0.0	0.0	0.0	
Total SESARM			**100**	**100**	**100**	**100**	

Table IV-5. Final 2007 Fugitive Dust Emission Estimates by State

State	Pollutant Emissions, TPY						
	SO_2	NO_x	VOC	PM10-PRI	PM2.5-PRI	CO	NH_3
Alabama				318,858	33,717		
Florida				270,262	22,325		
Georgia				580,492	62,104		
Kentucky				184,551	19,979		
Mississippi				301,642	32,897		
North Carolina				37,467	3,722		
South Carolina				235,508	23,304		
Tennessee				176,850	19,521		
Virginia				134,014	18,730		
West Virginia				72,018	6,676		
Total SESARM				**2,311,660**	**242,976**		

State	Percentage of Regional Total						
	SO_2	NO_x	VOC	PM10-PRI	PM2.5-PRI	CO	NH_3
Alabama				13.8	13.9		
Florida				11.7	9.2		
Georgia				25.1	25.6		
Kentucky				8.0	8.2		
Mississippi				13.0	13.5		
North Carolina				1.6	1.5		
South Carolina				10.2	9.6		
Tennessee				7.7	8.0		
Virginia				5.8	7.7		
West Virginia				3.1	2.7		
Total SESARM				**100**	**100**		

Table IV-6. Final 2007 All Other Area Source Emission Estimates by State

State	Pollutant Emissions, TPY						
	SO_2	NO_x	VOC	PM10-PRI	PM2.5-PRI	CO	NH_3
Alabama	56	450	22,368	29,724	6,480	3,895	61,977
Florida	171	851	129,465	43,012	13,477	14,285	33,355
Georgia	331	1,903	54,369	58,148	19,605	23,771	84,693
Kentucky	340	1,406	25,512	29,271	11,789	24,347	51,662
Mississippi	138	817	30,720	23,634	8,819	12,445	58,467
North Carolina	276	1,181	34,888	9,417	8,713	17,416	168,530
South Carolina	147	873	36,143	20,732	8,308	13,508	29,820
Tennessee	357	1,565	44,892	26,039	11,903	18,852	34,444
Virginia	961	2,172	38,867	34,109	12,946	20,633	41,594
West Virginia	128	589	16,643	25,683	7,833	8,478	12,433
Total SESARM	**2,905**	**11,807**	**433,868**	**299,768**	**109,872**	**157,631**	**576,975**

State	Percentage of Regional Total						
	SO_2	NO_x	VOC	PM10-PRI	PM2.5-PRI	CO	NH_3
Alabama	1.9	3.8	5.2	9.9	5.9	2.5	10.7
Florida	5.9	7.2	29.8	14.3	12.3	9.1	5.8
Georgia	11.4	16.1	12.5	19.4	17.8	15.1	14.7
Kentucky	11.7	11.9	5.9	9.8	10.7	15.4	9.0
Mississippi	4.8	6.9	7.1	7.9	8.0	7.9	10.1
North Carolina	9.5	10.0	8.0	3.1	7.9	11.0	29.2
South Carolina	5.1	7.4	8.3	6.9	7.6	8.6	5.2
Tennessee	12.3	13.3	10.3	8.7	10.8	12.0	6.0
Virginia	33.1	18.4	9.0	11.4	11.8	13.1	7.2
West Virginia	4.4	5.0	3.8	8.6	7.1	5.4	2.2
Total SESARM	**100**	**100**	**100**	**100**	**100**	**100**	**100**

B. NONROAD MOBILE SOURCE EMISSIONS

Table IV-7 provides a summary of final 2007 nonroad mobile annual emissions by the four major nonroad subsectors for the SESARM region. PM-10 and PM-2.5 emissions represent primary PM, and are reported as PM10-PRI, and PM25-PRI. The commercial marine category is the most significant contributor regionally to SO_2 emissions. Nonroad model categories account for the large majority of emissions for NO_x, VOC, PM10-PRI, PM25-PRI, and CO.

Table IV-8 presents a summary of the final annual NONROAD model emission estimates by state, as well as the percent contribution of each state to total regional emissions. Similar summaries providing 2007 annual state-level emission estimates for aircraft, commercial marine, and locomotives, as well as the percent contributions, are shown in Tables IV-9, IV-10, and IV-11, respectively.

Since development of the draft inventory, locomotive switchyard emissions developed by ERTAC have been added. These emission estimates were developed at a railyard level, and summed to the county level for the 2007 SEMAP inventory. As mentioned in Section III.D, we are providing an electronic file that provides emissions at a railyard level, so that SESARM agencies can review the data that form the basis of the county-level estimates, and make any needed revisions. In addition, for the aircraft category, EPA made some additions to the 2008 military aircraft NEI that formed the basis of the initial draft SEMAP inventory. As discussed in Section III.B, we are distributing an

electronic file showing additional emission records calculated by EPA for military aircraft by airport for the SESARM region. Agencies should provide feedback as to whether these records should be added to their inventory.

Table IV-7. Final 2007 SESARM Nonroad Source Emissions by Major Sector

Category	Pollutant Emissions, tons per year						
	SO_2	NO_x	VOC	PM10-PRI	PM25-PRI	CO	NH_3
NONROAD Model	23,308	404,580	629,693	41,489	39,517	4,642,050	447
Aircraft	3,105	32,153	18,444	4,066	3,037	196,823	NA
Commercial Marine	33,715	162,801	4,516	7,869	7,462	28,726	86
Locomotive	2,178	155,025	8,285	5,085	4,693	21,633	67
All Nonroad	**62,307**	**754,560**	**660,938**	**58,508**	**54,709**	**4,889,232**	**601**

Table IV-8. Final 2007 NONROAD Model Emission Estimates by State

State	Pollutant Emissions, tons per year						
	SO_2	NO_x	VOC	PM10-PRI	PM25-PRI	CO	NH_3
Alabama	1,483	26,695	49,956	2,806	2,665	316,138	30
Florida	6,714	109,218	193,974	11,543	10,986	1,431,464	134
Georgia	3,079	51,524	69,914	5,315	5,067	629,419	56
Kentucky	1,630	28,665	36,641	2,877	2,749	240,397	28
Mississippi	1,147	20,050	33,760	2,126	2,025	187,258	21
North Carolina	3,111	55,743	76,568	5,434	5,181	597,360	58
South Carolina	1,522	26,742	42,293	2,661	2,534	328,606	29
Tennessee	1,884	36,756	54,089	3,637	3,467	388,496	38
Virginia	2,329	41,658	55,164	4,132	3,937	416,303	45
West Virginia	410	7,529	17,333	957	905	106,610	9
Total SESARM	**23,308**	**404,091**	**630,621**	**41,489**	**39,517**	**4,674,012**	**447**

State	Percentage of Regional Total						
	SO_2	NO_x	VOC	PM10-PRI	PM25-PRI	CO	NH_3
Alabama	6.4	6.6	7.9	6.8	6.7	6.8	6.7
Florida	28.8	27.0	30.8	27.8	27.8	30.8	29.9
Georgia	13.2	12.7	11.1	12.8	12.8	13.6	12.6
Kentucky	7.0	7.1	5.8	6.9	7.0	5.2	6.2
Mississippi	4.9	5.0	5.4	5.1	5.1	4.0	4.7
North Carolina	13.3	13.8	12.2	13.1	13.1	12.9	13.0
South Carolina	6.5	6.6	6.7	6.4	6.4	7.1	6.6
Tennessee	8.1	9.1	8.6	8.8	8.8	8.4	8.4
Virginia	10.0	10.3	8.8	10.0	10.0	9.0	10.0
West Virginia	1.8	1.9	2.8	2.3	2.3	2.3	2.0
Total SESARM	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table IV-9. Final 2007 Aircraft Emission Estimates by State

State	Pollutant Emissions, tons per year					
	SO_2	NO_x	VOC	PM10-PRI	PM25-PRI	CO
Alabama	51	440	891	294	205	14,778
Florida	992	10,746	5,060	1,028	772	57,332
Georgia	608	4,909	2,771	433	346	28,082
Kentucky	219	2,257	918	204	154	11,555
Mississippi	26	219	665	168	117	8,520
North Carolina	370	3,499	2,487	521	423	22,482
South Carolina	68	586	930	210	149	11,117
Tennessee	354	4,054	1,623	292	227	16,318
Virginia	410	5,385	2,842	844	594	23,032
West Virginia	7	59	257	72	50	3,607
Total SESARM	**3,105**	**32,153**	**18,444**	**4,066**	**3,037**	**196,823**

State	Percentage of Regional Total					
	SO_2	NO_x	VOC	PM10-PRI	PM25-PRI	CO
Alabama	1.6	1.4	4.8	7.2	6.8	7.5
Florida	32.0	33.4	27.4	25.3	25.4	29.1
Georgia	19.6	15.3	15.0	10.7	11.4	14.3
Kentucky	7.1	7.0	5.0	5.0	5.1	5.9
Mississippi	0.8	0.7	3.6	4.1	3.9	4.3
North Carolina	11.9	10.9	13.5	12.8	13.9	11.4
South Carolina	2.2	1.8	5.0	5.2	4.9	5.6
Tennessee	11.4	12.6	8.8	7.2	7.5	8.3
Virginia	13.2	16.7	15.4	20.8	19.6	11.7
West Virginia	0.2	0.2	1.4	1.8	1.6	1.8
Total SESARM	**100**	**100**	**100**	**100**	**100**	**100**

Table IV-10. Final 2007 Commercial Marine Vessel Emission Estimates by State

State	Pollutant Emissions, tons per year						
	SO_2	NO_x	VOC	PM10-PRI	PM25-PRI	CO	NH_3
Alabama	1,739	18,554	411	726	699	3,723	8
Florida	18,146	48,271	1,261	2,971	2,778	7,014	29
Georgia	2,044	10,582	257	476	456	1,845	5
Kentucky	1,015	15,726	338	576	558	3,009	11
Mississippi	1,784	18,119	401	710	683	3,368	10
North Carolina	1,846	4,233	109	222	209	670	2
South Carolina	1,289	1,946	109	138	123	220	1
Tennessee	731	7,565	765	502	469	2,082	4
Virginia	4,094	21,918	524	966	922	3,755	10
West Virginia	1,026	15,888	341	582	564	3,040	8
Total SESARM	**33,715**	**162,801**	**4,516**	**7,869**	**7,462**	**28,726**	**86**

State	Percentage of Regional Total						
	SO_2	NO_x	VOC	PM10-PRI	PM25-PRI	CO	NH_3
Alabama	5.2	11.4	9.1	9.2	9.4	13.0	9.4
Florida	53.8	29.7	27.9	37.8	37.2	24.4	33.3
Georgia	6.1	6.5	5.7	6.1	6.1	6.4	5.3
Kentucky	3.0	9.7	7.5	7.3	7.5	10.5	12.6
Mississippi	5.3	11.1	8.9	9.0	9.2	11.7	11.3
North Carolina	5.5	2.6	2.4	2.8	2.8	2.3	2.3
South Carolina	3.8	1.2	2.4	1.8	1.6	0.8	1.0
Tennessee	2.2	4.6	16.9	6.4	6.3	7.2	4.6
Virginia	12.1	13.5	11.6	12.3	12.4	13.1	11.5
West Virginia	3.0	9.8	7.6	7.4	7.6	10.6	8.8
Total SESARM	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table IV-11. Final 2007 Locomotive Emission Estimates by State

State	Pollutant Emissions, tons per year						
	SO_2	NO_x	VOC	PM10-PRI	PM25-PRI	CO	NH_3
Alabama	196	17,899	972	598	552	2,542	8
Florida	175	11,625	592	356	332	1,505	5
Georgia	252	24,066	1,303	801	739	3,402	11
Kentucky	173	16,806	888	550	508	2,355	7
Mississippi	131	9,933	489	304	280	1,295	4
North Carolina	130	11,592	622	378	350	1,610	5
South Carolina	99	8,968	479	296	273	1,264	4
Tennessee	367	19,461	1,083	650	591	2,799	8
Virginia	444	21,639	1,180	728	678	3,066	9
West Virginia	212	13,037	677	423	389	1,796	6
Total SESARM	**2,178**	**155,025**	**8,285**	**5,085**	**4,693**	**21,633**	**67**

State	Percentage of Regional Total						
	SO_2	NO_x	VOC	PM10-PRI	PM25-PRI	CO	NH_3
Alabama	9.0	11.5	11.7	11.8	11.8	11.8	11.8
Florida	8.0	7.5	7.1	7.0	7.1	7.0	6.9
Georgia	11.6	15.5	15.7	15.7	15.7	15.7	15.8
Kentucky	8.0	10.8	10.7	10.8	10.8	10.9	10.9
Mississippi	6.0	6.4	5.9	6.0	6.0	6.0	6.0
North Carolina	6.0	7.5	7.5	7.4	7.5	7.4	7.5
South Carolina	4.6	5.8	5.8	5.8	5.8	5.8	5.8
Tennessee	16.8	12.6	13.1	12.8	12.6	12.9	12.5
Virginia	20.4	14.0	14.2	14.3	14.4	14.2	14.0
West Virginia	9.8	8.4	8.2	8.3	8.3	8.3	8.7
Total SESARM	**100**	**100**	**100**	**100**	**100**	**100**	**100**

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APPENDIX A. POINT SOURCE SUBTRACTION PROCEDURE DETAILS

This Appendix describes source category-specific details on the point source subtraction procedures, and displays the area SCC to point SCC crosswalk (see Tables A-1 through A-8).

A. ICI FUEL COMBUSTION

To assist in the point source subtractions for industrial, commercial, and institutional (ICI) fuel combustion, TranSystems developed two crosswalks: one between each industrial fuel combustion area SCC and associated point SCCs (Table A-1), and an analogous crosswalk developed for commercial/institutional fuel combustion (Table A-2).

Because natural gas consumed as pipeline fuel is not included by the Energy Information Administration (EIA) in EIA's state energy consumption data for the Industrial sector, it was necessary to exclude pipeline natural gas combustion emissions from the point source subtraction procedure. Since there are no SCCs specific to pipeline natural gas combustion, point source pipeline natural gas combustion emission estimates were compiled by summing emissions for industrial sector natural gas internal combustion engine records (SCC 202002xx) with a pipeline-related Standard Industrial Classification (SIC) or North American Industrial Classification System (NAICS) code (SIC codes 1311, 1321, 1381, 4612, 4613, 4619, 4922, 4923, 4924, 4925, or 4931; NAICS codes 211111, 21112, 22121, 221210, 486110, 48621, 486210, 486910, 48699, or 486990).

B. CONSTRUCTION DUST

Table A-3 displays the point SCCs associated with dust from Construction activities. These SCCs do not provide information to separate activity into the two area source category processes:

- 2311010000 - Construction: SIC 15-17; Residential; Total; and
- 2311020000 - Construction: SIC 15-18; Industrial/Commercial/Institutional; Total.

TranSystems apportioned point source construction dust emissions between the two categories using state-level acreage data reported in the EPA October 2008 report "Economic Analysis of Final Effluent Limitation Guidelines and Standards for the Construction and Development Industry" (EPA, 2009). These proportions for each SESARM state are displayed below.

Percentage of Construction Acreage by State and Type of Construction

State	Residential %	Other %
Alabama	36	64
Florida	41	59
Georgia	39	61
Kentucky	31	69
Mississippi	24	76
North Carolina	48	52
South Carolina	42	58
Tennessee	35	65
Virginia	45	55
West Virginia	40	60

Source: Table 4-8 from EPA, 2009.

C. SOLVENT UTILIZATION

Table A-5 presents the point source crosswalk for each solvent utilization nonpoint SCC. This crosswalk was derived from the crosswalk used in performing VOC emissions-based point source subtractions for the 2002 NEI. As noted in the Table A-5 crosswalk, two area source solvent utilization SCCs (2401005000-Auto Refinishing and 2401070000-Motor Vehicles) are associated with the same point SCCs. For the Auto Refinishing area source category, point source subtractions for the listed SCCs were limited to records identified with Auto Refinishing industry sector SIC/NAICS codes (e.g., NAICS code 8111*). Emissions for all other applicable point SCC S/L inventory records were subtracted from total emissions for the Motor Vehicles source category.

D. GASOLINE DISTRIBUTION

Table A-6 displays the point SCCs associated with gasoline distribution. Some of these SCCs do not provide information to separate activity into each area source stage I gasoline distribution filling technology. Therefore, TranSystems allocated the emissions from these point SCCs to each filling technology based on the proportion of emissions from TranSystems default inventory.

Table A-1. Industrial Fuel Combustion Crosswalk for Point Source Subtractions.

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
2102001000 - Stationary Source Fuel Combustion; Industrial; Anthracite Coal; Total: All Boiler Types					
10200101	External Combustion Boilers	Industrial	Anthracite Coal	Pulverized Coal	
10200104	External Combustion Boilers	Industrial	Anthracite Coal	Traveling Grate (Overfeed) Stoker	
10200107	External Combustion Boilers	Industrial	Anthracite Coal	Hand-fired	
10200117	External Combustion Boilers	Industrial	Anthracite Coal	Fluidized Bed Boiler Burning Anthracite-Culm Fuel	
39000189	Industrial Processes	In-process Fuel Use	Anthracite Coal	General	
39000199	Industrial Processes	In-process Fuel Use	Anthracite Coal	General	
2102002000 - Stationary Source Fuel Combustion; Industrial; Bituminous/Subbituminous Coal; Total: All Boiler Types					
10200201	External Combustion Boilers	Industrial	Bituminous/Subbituminous Coal	Pulverized Coal: Wet Bottom	
10200202	External Combustion Boilers	Industrial	Bituminous/Subbituminous Coal	Pulverized Coal: Dry Bottom	
10200203	External Combustion Boilers	Industrial	Bituminous/Subbituminous Coal	Cyclone Furnace	
10200204	External Combustion Boilers	Industrial	Bituminous/Subbituminous Coal	Spreader Stoker	
10200205	External Combustion Boilers	Industrial	Bituminous/Subbituminous Coal	Overfeed Stoker	
10200206	External Combustion Boilers	Industrial	Bituminous/Subbituminous Coal	Underfeed Stoker	
10200210	External Combustion Boilers	Industrial	Bituminous/Subbituminous Coal	Overfeed Stoker **	
10200212	External Combustion Boilers	Industrial	Bituminous/Subbituminous Coal	Pulverized Coal: Dry Bottom (Tangential)	
10200213	External Combustion Boilers	Industrial	Bituminous/Subbituminous Coal	Wet Slurry	
10200217	External Combustion Boilers	Industrial	Bituminous/Subbituminous Coal	Atmospheric Fluidized Bed Combustion: Bubbling Bed (Bituminous Coal)	
10200218	External Combustion Boilers	Industrial	Bituminous/Subbituminous Coal	Atmospheric Fluidized Bed Combustion: Circulating Bed (Bitum. Coal)	
10200219	External Combustion Boilers	Industrial	Bituminous/Subbituminous Coal	Cogeneration (Bituminous Coal)	
10200221	External Combustion Boilers	Industrial	Bituminous/Subbituminous Coal	Pulverized Coal: Wet Bottom (Subbituminous Coal)	
10200222	External Combustion Boilers	Industrial	Bituminous/Subbituminous Coal	Pulverized Coal: Dry Bottom (Subbituminous Coal)	
10200223	External Combustion Boilers	Industrial	Bituminous/Subbituminous Coal	Cyclone Furnace (Subbituminous Coal)	
10200224	External Combustion Boilers	Industrial	Bituminous/Subbituminous Coal	Spreader Stoker (Subbituminous Coal)	
10200225	External Combustion Boilers	Industrial	Bituminous/Subbituminous Coal	Traveling Grate (Overfeed) Stoker (Subbituminous Coal)	
10200226	External Combustion Boilers	Industrial	Bituminous/Subbituminous Coal	Pulverized Coal: Dry Bottom Tangential (Subbituminous Coal)	
10200229	External Combustion Boilers	Industrial	Bituminous/Subbituminous Coal	Cogeneration (Subbituminous Coal)	
10500102	External Combustion Boilers	Space Heaters	Industrial	Coal **	
39000201	Industrial Processes	In-process Fuel Use	Bituminous Coal	Cement Kiln/Dryer (Bituminous Coal)	
39000203	Industrial Processes	In-process Fuel Use	Bituminous Coal	Lime Kiln (Bituminous)	
39000288	Industrial Processes	In-process Fuel Use	Bituminous Coal	General (Subbituminous)	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
39000289	Industrial Processes	In-process Fuel Use	Bituminous Coal	General (Bituminous)	
39000299	Industrial Processes	In-process Fuel Use	Bituminous Coal	General (Bituminous)	
50390002	Waste Disposal	Solid Waste Disposal - Industrial	Auxiliary Fuel/No Emissions	Coal	
2102004000 - Stationary Source Fuel Combustion; Industrial; Distillate Oil; Total: Boilers and IC Engines					
10200501	External Combustion Boilers	Industrial	Distillate Oil	Grades 1 and 2 Oil	
10200502	External Combustion Boilers	Industrial	Distillate Oil	10-100 Million Btu/hr **	
10200503	External Combustion Boilers	Industrial	Distillate Oil	< 10 Million Btu/hr **	
10200504	External Combustion Boilers	Industrial	Distillate Oil	Grade 4 Oil	
10200505	External Combustion Boilers	Industrial	Distillate Oil	Cogeneration	
10201403	External Combustion Boilers	Industrial	CO Boiler	Distillate Oil	
10500105	External Combustion Boilers	Space Heaters	Industrial	Distillate Oil	
20200101	Internal Combustion Engines	Industrial	Distillate Oil (Diesel)	Turbine	
20200102	Internal Combustion Engines	Industrial	Distillate Oil (Diesel)	Reciprocating	
20200103	Internal Combustion Engines	Industrial	Distillate Oil (Diesel)	Turbine: Cogeneration	
20200104	Internal Combustion Engines	Industrial	Distillate Oil (Diesel)	Reciprocating: Cogeneration	
20200105	Internal Combustion Engines	Industrial	Distillate Oil (Diesel)	Reciprocating: Crankcase Blowby	
20200106	Internal Combustion Engines	Industrial	Distillate Oil (Diesel)	Reciprocating: Evaporative Losses (Fuel Storage and Delivery System)	
20200107	Internal Combustion Engines	Industrial	Distillate Oil (Diesel)	Reciprocating: Exhaust	
20200108	Internal Combustion Engines	Industrial	Distillate Oil (Diesel)	Turbine: Evaporative Losses (Fuel Storage and Delivery System)	
20200109	Internal Combustion Engines	Industrial	Distillate Oil (Diesel)	Turbine: Exhaust	
20200401	Internal Combustion Engines	Industrial	Large Bore Engine	Diesel	
20200405	Internal Combustion Engines	Industrial	Large Bore Engine	Crankcase Blowby	
20200406	Internal Combustion Engines	Industrial	Large Bore Engine	Evaporative Losses (Fuel Storage and Delivery System)	
20200407	Internal Combustion Engines	Industrial	Large Bore Engine	Exhaust	
27000320	Internal Combustion Engines	Off-highway Diesel Engines	Industrial Equipment	Industrial Fork Lift: Diesel	
30190001	Industrial Processes	Chemical Manufacturing	Fuel Fired Equipment	Distillate Oil (No. 2): Process Heaters	
30190011	Industrial Processes	Chemical Manufacturing	Fuel Fired Equipment	Distillate Oil (No. 2): Incinerators	
30190021	Industrial Processes	Chemical Manufacturing	Fuel Fired Equipment	Distillate Oil (No. 2): Flares	
30290001	Industrial Processes	Food and Agriculture	Fuel Fired Equipment	Distillate Oil (No. 2): Process Heaters	
30390001	Industrial Processes	Primary Metal Production	Fuel Fired Equipment	Distillate Oil (No. 2): Process Heaters	
30390011	Industrial Processes	Primary Metal Production	Fuel Fired Equipment	Distillate Oil (No. 2): Incinerators	
30390021	Industrial Processes	Primary Metal Production	Fuel Fired Equipment	Distillate Oil (No. 2): Flares	
30400406	Industrial Processes	Secondary Metal Production	Lead	Pot Furnace Heater: Distillate Oil	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
30490001	Industrial Processes	Secondary Metal Production	Fuel Fired Equipment	Distillate Oil (No. 2): Process Heaters	
30490011	Industrial Processes	Secondary Metal Production	Fuel Fired Equipment	Distillate Oil (No. 2): Incinerators	
30490021	Industrial Processes	Secondary Metal Production	Fuel Fired Equipment	Distillate Oil (No. 2): Flares	
30490031	Industrial Processes	Secondary Metal Production	Fuel Fired Equipment	Distillate Oil (No. 2): Furnaces	
30500208	Industrial Processes	Mineral Products	Asphalt Concrete	Asphalt Heater: Distillate Oil	
30505022	Industrial Processes	Mineral Products	Asphalt Processing (Blowing)	Asphalt Heater: Distillate Oil	
30590001	Industrial Processes	Mineral Products	Fuel Fired Equipment	Distillate Oil (No. 2): Process Heaters	
30590011	Industrial Processes	Mineral Products	Fuel Fired Equipment	Distillate Oil (No. 2): Incinerators	
30590021	Industrial Processes	Mineral Products	Fuel Fired Equipment	Distillate Oil (No. 2): Flares	
30600901	Industrial Processes	Petroleum Industry	Flares	Distillate Oil	
30609901	Industrial Processes	Petroleum Industry	Incinerators	Distillate Oil (No. 2)	
30790001	Industrial Processes	Pulp and Paper and Wood Products	Fuel Fired Equipment	Distillate Oil (No. 2): Process Heaters	
30790011	Industrial Processes	Pulp and Paper and Wood Products	Fuel Fired Equipment	Distillate Oil (No. 2): Incinerators	
30790021	Industrial Processes	Pulp and Paper and Wood Products	Fuel Fired Equipment	Distillate Oil (No. 2): Flares	
30890001	Industrial Processes	Rubber and Miscellaneous Plastics Products	Fuel Fired Equipment	Distillate Oil (No. 2): Process Heaters	
30890011	Industrial Processes	Rubber and Miscellaneous Plastics Products	Fuel Fired Equipment	Distillate Oil (No. 2): Incinerators	
30890021	Industrial Processes	Rubber and Miscellaneous Plastics Products	Fuel Fired Equipment	Distillate Oil (No. 2): Flares	
30990001	Industrial Processes	Fabricated Metal Products	Fuel Fired Equipment	Distillate Oil (No. 2): Process Heaters	
30990011	Industrial Processes	Fabricated Metal Products	Fuel Fired Equipment	Distillate Oil (No. 2): Incinerators	
31000401	Industrial Processes	Oil and Gas Production	Process Heaters	Distillate Oil (No. 2)	
31000411	Industrial Processes	Oil and Gas Production	Process Heaters	Distillate Oil (No. 2): Steam Generators	
31390001	Industrial Processes	Electrical Equipment	Process Heaters	Distillate Oil (No. 2)	
39000501	Industrial Processes	In-process Fuel Use	Distillate Oil	Asphalt Dryer **	
39000502	Industrial Processes	In-process Fuel Use	Distillate Oil	Cement Kiln/Dryer	
39000503	Industrial Processes	In-process Fuel Use	Distillate Oil	Lime Kiln	
39000589	Industrial Processes	In-process Fuel Use	Distillate Oil	General	
39000598	Industrial Processes	In-process Fuel Use	Distillate Oil	Grade 4 Oil: General	
39000599	Industrial Processes	In-process Fuel Use	Distillate Oil	General	
39900501	Industrial Processes	Miscellaneous Manufacturing Industries	Process Heater/Furnace	Distillate Oil	
39990001	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Manufacturing Industries	Distillate Oil (No. 2): Process Heaters	
39990011	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Manufacturing Industries	Distillate Oil (No. 2): Incinerators	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
39990021	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Manufacturing Industries	Distillate Oil (No. 2 Oil): Flares	
40201002	Petroleum and Solvent Evaporation	Surface Coating Operations	Coating Oven Heater	Distillate Oil	
40290011	Petroleum and Solvent Evaporation	Surface Coating Operations	Fuel Fired Equipment	Distillate Oil: Incinerator/Afterburner	
49090011	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Fuel Fired Equipment	Distillate Oil (No. 2): Incinerators	
49090021	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Fuel Fired Equipment	Distillate Oil (No. 2): Flares	
50390005	Waste Disposal	Solid Waste Disposal - Industrial	Auxiliary Fuel/No Emissions	Distillate Oil	
2102005000 - Stationary Source Fuel Combustion; Industrial; Residual Oil; Total: All Boiler Types					
10200401	External Combustion Boilers	Industrial	Residual Oil	Grade 6 Oil	
10200402	External Combustion Boilers	Industrial	Residual Oil	10-100 Million Btu/hr **	
10200403	External Combustion Boilers	Industrial	Residual Oil	< 10 Million Btu/hr **	
10200404	External Combustion Boilers	Industrial	Residual Oil	Grade 5 Oil	
10200405	External Combustion Boilers	Industrial	Residual Oil	Cogeneration	
10201404	External Combustion Boilers	Industrial	CO Boiler	Residual Oil	
20200501	Internal Combustion Engines	Industrial	Residual/Crude Oil	Reciprocating	
20200505	Internal Combustion Engines	Industrial	Residual/Crude Oil	Reciprocating: Crankcase Blowby	
20200506	Internal Combustion Engines	Industrial	Residual/Crude Oil	Reciprocating: Evaporative Losses (Fuel Storage and Delivery System)	
20200507	Internal Combustion Engines	Industrial	Residual/Crude Oil	Reciprocating: Exhaust	
30190002	Industrial Processes	Chemical Manufacturing	Fuel Fired Equipment	Residual Oil: Process Heaters	
30190012	Industrial Processes	Chemical Manufacturing	Fuel Fired Equipment	Residual Oil: Incinerators	
30190022	Industrial Processes	Chemical Manufacturing	Fuel Fired Equipment	Residual Oil: Flares	
30290002	Industrial Processes	Food and Agriculture	Fuel Fired Equipment	Residual Oil: Process Heaters	
30390002	Industrial Processes	Primary Metal Production	Fuel Fired Equipment	Residual Oil: Process Heaters	
30390012	Industrial Processes	Primary Metal Production	Fuel Fired Equipment	Residual Oil: Incinerators	
30390022	Industrial Processes	Primary Metal Production	Fuel Fired Equipment	Residual Oil: Flares	
30490002	Industrial Processes	Secondary Metal Production	Fuel Fired Equipment	Residual Oil: Process Heaters	
30490012	Industrial Processes	Secondary Metal Production	Fuel Fired Equipment	Residual Oil: Incinerators	
30490022	Industrial Processes	Secondary Metal Production	Fuel Fired Equipment	Residual Oil: Flares	
30490032	Industrial Processes	Secondary Metal Production	Fuel Fired Equipment	Residual Oil: Furnaces	
30500207	Industrial Processes	Mineral Products	Asphalt Concrete	Asphalt Heater: Residual Oil	
30505021	Industrial Processes	Mineral Products	Asphalt Processing (Blowing)	Asphalt Heater: Residual Oil	
30590002	Industrial Processes	Mineral Products	Fuel Fired Equipment	Residual Oil: Process Heaters	
30590012	Industrial Processes	Mineral Products	Fuel Fired Equipment	Residual Oil: Incinerators	
30600111	Industrial Processes	Petroleum Industry	Process Heaters	Oil-fired (No. 6 Oil) > 100 Million Btu Capacity	
30600902	Industrial Processes	Petroleum Industry	Flares	Residual Oil	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
30609902	Industrial Processes	Petroleum Industry	Incinerators	Residual Oil	
30790002	Industrial Processes	Pulp and Paper and Wood Products	Fuel Fired Equipment	Residual Oil: Process Heaters	
30790012	Industrial Processes	Pulp and Paper and Wood Products	Fuel Fired Equipment	Residual Oil: Incinerators	
30790022	Industrial Processes	Pulp and Paper and Wood Products	Fuel Fired Equipment	Residual Oil: Flares	
30890002	Industrial Processes	Rubber and Miscellaneous Plastics Products	Fuel Fired Equipment	Residual Oil: Process Heaters	
30890012	Industrial Processes	Rubber and Miscellaneous Plastics Products	Fuel Fired Equipment	Residual Oil: Incinerators	
30890022	Industrial Processes	Rubber and Miscellaneous Plastics Products	Fuel Fired Equipment	Residual Oil: Flares	
30990002	Industrial Processes	Fabricated Metal Products	Fuel Fired Equipment	Residual Oil: Process Heaters	
30990012	Industrial Processes	Fabricated Metal Products	Fuel Fired Equipment	Residual Oil: Incinerators	
31000402	Industrial Processes	Oil and Gas Production	Process Heaters	Residual Oil	
31000412	Industrial Processes	Oil and Gas Production	Process Heaters	Residual Oil: Steam Generators	
31390002	Industrial Processes	Electrical Equipment	Process Heaters	Residual Oil	
39000402	Industrial Processes	In-process Fuel Use	Residual Oil	Cement Kiln/Dryer	
39000403	Industrial Processes	In-process Fuel Use	Residual Oil	Lime Kiln	
39000489	Industrial Processes	In-process Fuel Use	Residual Oil	General	
39000499	Industrial Processes	In-process Fuel Use	Residual Oil	General	
39990002	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Manufacturing Industries	Residual Oil: Process Heaters	
39990012	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Manufacturing Industries	Residual Oil: Incinerators	
39990022	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Manufacturing Industries	Residual Oil: Flares	
40201003	Petroleum and Solvent Evaporation	Surface Coating Operations	Coating Oven Heater	Residual Oil	
40290012	Petroleum and Solvent Evaporation	Surface Coating Operations	Fuel Fired Equipment	Residual Oil: Incinerator/Afterburner	
49090012	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Fuel Fired Equipment	Residual Oil: Incinerators	
49090022	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Fuel Fired Equipment	Residual Oil: Flares	
2102006000 - Stationary Source Fuel Combustion; Industrial; Natural Gas; Total: Boilers and IC Engines					
10200601	External Combustion Boilers	Industrial	Natural Gas	> 100 Million Btu/hr	
10200602	External Combustion Boilers	Industrial	Natural Gas	10-100 Million Btu/hr	
10200603	External Combustion Boilers	Industrial	Natural Gas	< 10 Million Btu/hr	
10200604	External Combustion Boilers	Industrial	Natural Gas	Cogeneration	
10201401	External Combustion Boilers	Industrial	CO Boiler	Natural Gas	
10500106	External Combustion Boilers	Space Heaters	Industrial	Natural Gas	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
20200201	Internal Combustion Engines	Industrial	Natural Gas	Turbine	Exclude compressor station natural gas
20200202	Internal Combustion Engines	Industrial	Natural Gas	Reciprocating	Exclude compressor station natural gas
20200203	Internal Combustion Engines	Industrial	Natural Gas	Turbine: Cogeneration	Exclude compressor station natural gas
20200204	Internal Combustion Engines	Industrial	Natural Gas	Reciprocating: Cogeneration	Exclude compressor station natural gas
20200205	Internal Combustion Engines	Industrial	Natural Gas	Reciprocating: Crankcase Blowby	Exclude compressor station natural gas
20200206	Internal Combustion Engines	Industrial	Natural Gas	Reciprocating: Evaporative Losses (Fuel Delivery System)	Exclude compressor station natural gas
20200207	Internal Combustion Engines	Industrial	Natural Gas	Reciprocating: Exhaust	Exclude compressor station natural gas
20200208	Internal Combustion Engines	Industrial	Natural Gas	Turbine: Evaporative Losses (Fuel Delivery System)	Exclude compressor station natural gas
20200209	Internal Combustion Engines	Industrial	Natural Gas	Turbine: Exhaust	Exclude compressor station natural gas
20200251	Internal Combustion Engines	Industrial	Natural Gas	2-cycle Rich Burn	Exclude compressor station natural gas
20200252	Internal Combustion Engines	Industrial	Natural Gas	2-cycle Lean Burn	Exclude compressor station natural gas
20200253	Internal Combustion Engines	Industrial	Natural Gas	4-cycle Rich Burn	Exclude compressor station natural gas
20200254	Internal Combustion Engines	Industrial	Natural Gas	4-cycle Lean Burn	Exclude compressor station natural gas
20200255	Internal Combustion Engines	Industrial	Natural Gas	2-cycle Clean Burn	Exclude compressor station natural gas
20200256	Internal Combustion Engines	Industrial	Natural Gas	4-cycle Clean Burn	Exclude compressor station natural gas
30190003	Industrial Processes	Chemical Manufacturing	Fuel Fired Equipment	Natural Gas: Process Heaters	
30190013	Industrial Processes	Chemical Manufacturing	Fuel Fired Equipment	Natural Gas: Incinerators	
30190023	Industrial Processes	Chemical Manufacturing	Fuel Fired Equipment	Natural Gas: Flares	
30290003	Industrial Processes	Food and Agriculture	Fuel Fired Equipment	Natural Gas: Process Heaters	
30291001	Industrial Processes	Food and Agriculture	Fuel Fired Equipment	Broiling Food: Natural Gas	
30390003	Industrial Processes	Primary Metal Production	Fuel Fired Equipment	Natural Gas: Process Heaters	
30390013	Industrial Processes	Primary Metal Production	Fuel Fired Equipment	Natural Gas: Incinerators	
30390023	Industrial Processes	Primary Metal Production	Fuel Fired Equipment	Natural Gas: Flares	
30400407	Industrial Processes	Secondary Metal Production	Lead	Pot Furnace Heater: Natural Gas	
30490003	Industrial Processes	Secondary Metal Production	Fuel Fired Equipment	Natural Gas: Process Heaters	
30490013	Industrial Processes	Secondary Metal Production	Fuel Fired Equipment	Natural Gas: Incinerators	
30490023	Industrial Processes	Secondary Metal Production	Fuel Fired Equipment	Natural Gas: Flares	
30490033	Industrial Processes	Secondary Metal Production	Fuel Fired Equipment	Natural Gas: Furnaces	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
30500206	Industrial Processes	Mineral Products	Asphalt Concrete	Asphalt Heater: Natural Gas	
30505020	Industrial Processes	Mineral Products	Asphalt Processing (Blowing)	Asphalt Heater: Natural Gas	
30590003	Industrial Processes	Mineral Products	Fuel Fired Equipment	Natural Gas: Process Heaters	
30590013	Industrial Processes	Mineral Products	Fuel Fired Equipment	Natural Gas: Incinerators	
30590023	Industrial Processes	Mineral Products	Fuel Fired Equipment	Natural Gas: Flares	
30600105	Industrial Processes	Petroleum Industry	Process Heaters	Natural Gas	
30600903	Industrial Processes	Petroleum Industry	Flares	Natural Gas	
30602401	Industrial Processes	Petroleum Industry	Reciprocating Engine Compressors	Natural Gas Fired	
30609903	Industrial Processes	Petroleum Industry	Incinerators	Natural Gas	
30790003	Industrial Processes	Pulp and Paper and Wood Products	Fuel Fired Equipment	Natural Gas: Process Heaters	
30790013	Industrial Processes	Pulp and Paper and Wood Products	Fuel Fired Equipment	Natural Gas: Incinerators	
30790023	Industrial Processes	Pulp and Paper and Wood Products	Fuel Fired Equipment	Natural Gas: Flares	
30890003	Industrial Processes	Rubber and Miscellaneous Plastics Products	Fuel Fired Equipment	Natural Gas: Process Heaters	
30890013	Industrial Processes	Rubber and Miscellaneous Plastics Products	Fuel Fired Equipment	Natural Gas: Incinerators	
30890023	Industrial Processes	Rubber and Miscellaneous Plastics Products	Fuel Fired Equipment	Natural Gas: Flares	
30990003	Industrial Processes	Fabricated Metal Products	Fuel Fired Equipment	Natural Gas: Process Heaters	
30990013	Industrial Processes	Fabricated Metal Products	Fuel Fired Equipment	Natural Gas: Incinerators	
30990023	Industrial Processes	Fabricated Metal Products	Fuel Fired Equipment	Natural Gas: Flares	
31000404	Industrial Processes	Oil and Gas Production	Process Heaters	Natural Gas	
31000414	Industrial Processes	Oil and Gas Production	Process Heaters	Natural Gas: Steam Generators	
31390003	Industrial Processes	Electrical Equipment	Process Heaters	Natural Gas	
39000602	Industrial Processes	In-process Fuel Use	Natural Gas	Cement Kiln/Dryer	
39000603	Industrial Processes	In-process Fuel Use	Natural Gas	Lime Kiln	
39000605	Industrial Processes	In-process Fuel Use	Natural Gas	Metal Melting **	
39000689	Industrial Processes	In-process Fuel Use	Natural Gas	General	
39000699	Industrial Processes	In-process Fuel Use	Natural Gas	General	
39900601	Industrial Processes	Miscellaneous Manufacturing Industries	Process Heater/Furnace	Natural Gas	
39990003	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Manufacturing Industries	Natural Gas: Process Heaters	
39990013	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Manufacturing Industries	Natural Gas: Incinerators	
39990023	Industrial Processes	Miscellaneous Manufacturing Industries	Miscellaneous Manufacturing Industries	Natural Gas: Flares	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
40201001	Petroleum and Solvent Evaporation	Surface Coating Operations	Coating Oven Heater	Natural Gas	
40290013	Petroleum and Solvent Evaporation	Surface Coating Operations	Fuel Fired Equipment	Natural Gas: Incinerator/Afterburner	
40290023	Petroleum and Solvent Evaporation	Surface Coating Operations	Fuel Fired Equipment	Natural Gas: Flares	
49090013	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Fuel Fired Equipment	Natural Gas: Incinerators	
49090023	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Fuel Fired Equipment	Natural Gas: Flares	
50390006	Waste Disposal	Solid Waste Disposal - Industrial	Auxiliary Fuel/No Emissions	Natural Gas	
2102007000 - Stationary Source Fuel Combustion; Industrial; Liquified Petroleum Gas (LPG); Total: All Boiler Types					
10201001	External Combustion Boilers	Industrial	Liquified Petroleum Gas (LPG)	Butane	
10201002	External Combustion Boilers	Industrial	Liquified Petroleum Gas (LPG)	Propane	
10201003	External Combustion Boilers	Industrial	Liquified Petroleum Gas (LPG)	Butane/Propane Mixture: Specify Percent Butane in Comments	
10500110	External Combustion Boilers	Space Heaters	Industrial	Liquified Petroleum Gas (LPG)	
20201001	Internal Combustion Engines	Industrial	Liquified Petroleum Gas (LPG)	Propane: Reciprocating	
20201002	Internal Combustion Engines	Industrial	Liquified Petroleum Gas (LPG)	Butane: Reciprocating	
20201005	Internal Combustion Engines	Industrial	Liquified Petroleum Gas (LPG)	Reciprocating: Crankcase Blowby	
20201006	Internal Combustion Engines	Industrial	Liquified Petroleum Gas (LPG)	Reciprocating: Evaporative Losses (Fuel Storage and Delivery System)	
20201007	Internal Combustion Engines	Industrial	Liquified Petroleum Gas (LPG)	Reciprocating: Exhaust	
20201008	Internal Combustion Engines	Industrial	Liquified Petroleum Gas (LPG)	Turbine: Evaporative Losses (Fuel Storage and Delivery System)	
20201009	Internal Combustion Engines	Industrial	Liquified Petroleum Gas (LPG)	Turbine: Exhaust	
20201011	Internal Combustion Engines	Industrial	Liquified Petroleum Gas (LPG)	Turbine	
20201012	Internal Combustion Engines	Industrial	Liquified Petroleum Gas (LPG)	Reciprocating Engine	
20201013	Internal Combustion Engines	Industrial	Liquified Petroleum Gas (LPG)	Turbine: Cogeneration	
20201014	Internal Combustion Engines	Industrial	Liquified Petroleum Gas (LPG)	Reciprocating Engine: Cogeneration	
27300320	Internal Combustion Engines	Off-highway LPG-fueled Engines	Industrial Equipment	Industrial Fork Lift: Liquified Petroleum Gas (LPG)	
30290005	Industrial Processes	Food and Agriculture	Fuel Fired Equipment	Liquified Petroleum Gas (LPG): Process Heaters	
30490035	Industrial Processes	Secondary Metal Production	Fuel Fired Equipment	Propane: Furnaces	
30500209	Industrial Processes	Mineral Products	Asphalt Concrete	Asphalt Heater: LPG	
30505023	Industrial Processes	Mineral Products	Asphalt Processing (Blowing)	Asphalt Heater: LP Gas	
30590005	Industrial Processes	Mineral Products	Fuel Fired Equipment	Liquified Petroleum Gas (LPG): Process Heaters	
30600107	Industrial Processes	Petroleum Industry	Process Heaters	LPG-fired	
30600905	Industrial Processes	Petroleum Industry	Flares	Liquified Petroleum Gas	
30609905	Industrial Processes	Petroleum Industry	Incinerators	Liquified Petroleum Gas	
30890004	Industrial Processes	Rubber and Miscellaneous Plastics Products	Fuel Fired Equipment	Liquified Petroleum Gas (LPG): Process Heaters	
31000406	Industrial Processes	Oil and Gas Production	Process Heaters	Propane/Butane	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
39001089	Industrial Processes	In-process Fuel Use	Liquified Petroleum Gas	General	
39001099	Industrial Processes	In-process Fuel Use	Liquified Petroleum Gas	General	
39901001	Industrial Processes	Miscellaneous Manufacturing Industries	Process Heater/Furnace	LPG	
40201004	Petroleum and Solvent Evaporation	Surface Coating Operations	Coating Oven Heater	Liquified Petroleum Gas (LPG)	
50390010	Waste Disposal	Solid Waste Disposal - Industrial	Auxiliary Fuel/No Emissions	Liquified Petroleum Gas (LPG)	
2102008000 - Stationary Source Fuel Combustion; Industrial; Wood; Total: All Boiler Types					
10200901	External Combustion Boilers	Industrial	Wood/Bark Waste	Bark-fired Boiler	
10200902	External Combustion Boilers	Industrial	Wood/Bark Waste	Wood/Bark-fired Boiler	
10200903	External Combustion Boilers	Industrial	Wood/Bark Waste	Wood-fired Boiler - Wet Wood (>=20% moisture)	
10200904	External Combustion Boilers	Industrial	Wood/Bark Waste	Bark-fired Boiler (< 50,000 Lb Steam) **	
10200905	External Combustion Boilers	Industrial	Wood/Bark Waste	Wood/Bark-fired Boiler (< 50,000 Lb Steam) **	
10200906	External Combustion Boilers	Industrial	Wood/Bark Waste	Wood-fired Boiler (< 50,000 Lb Steam) **	
10200907	External Combustion Boilers	Industrial	Wood/Bark Waste	Wood Cogeneration	
10200908	External Combustion Boilers	Industrial	Wood/Bark Waste	Wood-fired Boiler - Dry Wood (<20% moisture)	
10200910	External Combustion Boilers	Industrial	Wood/Bark Waste	Fuel cell/Dutch oven boilers **	
10200911	External Combustion Boilers	Industrial	Wood/Bark Waste	Stoker boilers **	
10200912	External Combustion Boilers	Industrial	Wood/Bark Waste	Fluidized bed combustion boiler	
39000989	Industrial Processes	In-process Fuel Use	Wood	General	
39000999	Industrial Processes	In-process Fuel Use	Wood	General: Wood	
2102011000 - Stationary Source Fuel Combustion; Industrial; Kerosene; Total: All Boiler Types					
20200901	Internal Combustion Engines	Industrial	Kerosene/Naphtha (Jet Fuel)	Turbine	
20200902	Internal Combustion Engines	Industrial	Kerosene/Naphtha (Jet Fuel)	Reciprocating	
20200905	Internal Combustion Engines	Industrial	Kerosene/Naphtha (Jet Fuel)	Reciprocating: Crankcase Blowby	
20200906	Internal Combustion Engines	Industrial	Kerosene/Naphtha (Jet Fuel)	Reciprocating: Evaporative Losses (Fuel Storage and Delivery System)	
20200907	Internal Combustion Engines	Industrial	Kerosene/Naphtha (Jet Fuel)	Reciprocating: Exhaust	
20200908	Internal Combustion Engines	Industrial	Kerosene/Naphtha (Jet Fuel)	Turbine: Evaporative Losses (Fuel Storage and Delivery System)	
20200909	Internal Combustion Engines	Industrial	Kerosene/Naphtha (Jet Fuel)	Turbine: Exhaust	

Table A-2. Commercial/Institutional Fuel Combustion Crosswalk for Point Source Subtractions

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
2103001000 - Stationary Source Fuel Combustion; Commercial/Institutional; Anthracite Coal; Total: All Boiler Types					
10300101	External Combustion Boilers	Commercial/Institutional	Anthracite Coal	Pulverized Coal	
10300102	External Combustion Boilers	Commercial/Institutional	Anthracite Coal	Traveling Grate (Overfeed) Stoker	
10300103	External Combustion Boilers	Commercial/Institutional	Anthracite Coal	Hand-fired	
2103002000 - Stationary Source Fuel Combustion; Commercial/Institutional; Bituminous/Subbituminous Coal; Total: All Boiler Types					
10300203	External Combustion Boilers	Commercial/Institutional	Bituminous/Subbituminous Coal	Cyclone Furnace (Bituminous Coal)	
10300205	External Combustion Boilers	Commercial/Institutional	Bituminous/Subbituminous Coal	Pulverized Coal: Wet Bottom (Bituminous Coal)	
10300206	External Combustion Boilers	Commercial/Institutional	Bituminous/Subbituminous Coal	Pulverized Coal: Dry Bottom (Bituminous Coal)	
10300207	External Combustion Boilers	Commercial/Institutional	Bituminous/Subbituminous Coal	Overfeed Stoker (Bituminous Coal)	
10300208	External Combustion Boilers	Commercial/Institutional	Bituminous/Subbituminous Coal	Underfeed Stoker (Bituminous Coal)	
10300209	External Combustion Boilers	Commercial/Institutional	Bituminous/Subbituminous Coal	Spreader Stoker (Bituminous Coal)	
10300211	External Combustion Boilers	Commercial/Institutional	Bituminous/Subbituminous Coal	Overfeed Stoker **	
10300214	External Combustion Boilers	Commercial/Institutional	Bituminous/Subbituminous Coal	Hand-fired (Bituminous Coal)	
10300216	External Combustion Boilers	Commercial/Institutional	Bituminous/Subbituminous Coal	Pulverized Coal: Dry Bottom (Tangential) (Bituminous Coal)	
10300217	External Combustion Boilers	Commercial/Institutional	Bituminous/Subbituminous Coal	Atmospheric Fluidized Bed Combustion: Bubbling Bed (Bituminous Coal)	
10300218	External Combustion Boilers	Commercial/Institutional	Bituminous/Subbituminous Coal	Atmospheric Fluidized Bed Combustion: Circulating Bed (Bitum. Coal)	
10300221	External Combustion Boilers	Commercial/Institutional	Bituminous/Subbituminous Coal	Pulverized Coal: Wet Bottom (Subbituminous Coal)	
10300222	External Combustion Boilers	Commercial/Institutional	Bituminous/Subbituminous Coal	Pulverized Coal: Dry Bottom (Subbituminous Coal)	
10300223	External Combustion Boilers	Commercial/Institutional	Bituminous/Subbituminous Coal	Cyclone Furnace (Subbituminous Coal)	
10300224	External Combustion Boilers	Commercial/Institutional	Bituminous/Subbituminous Coal	Spreader Stoker (Subbituminous Coal)	
10300225	External Combustion Boilers	Commercial/Institutional	Bituminous/Subbituminous Coal	Traveling Grate (Overfeed) Stoker (Subbituminous Coal)	
10300226	External Combustion Boilers	Commercial/Institutional	Bituminous/Subbituminous Coal	Pulverized Coal: Dry Bottom Tangential (Subbituminous Coal)	
10500202	External Combustion Boilers	Space Heaters	Commercial/Institutional	Coal **	
50190002	Waste Disposal	Solid Waste Disposal - Government	Auxiliary Fuel/No Emissions	Coal	
50290002	Waste Disposal	Solid Waste Disposal - Commercial/Institutional	Auxiliary Fuel/No Emissions	Coal	
2103004000 - Stationary Source Fuel Combustion; Commercial/Institutional; Distillate Oil; Total: Boilers and IC Engines					
10300501	External Combustion Boilers	Commercial/Institutional	Distillate Oil	Grades 1 and 2 Oil	
10300502	External Combustion Boilers	Commercial/Institutional	Distillate Oil	10-100 Million Btu/hr **	
10300503	External Combustion Boilers	Commercial/Institutional	Distillate Oil	< 10 Million Btu/hr **	
10300504	External Combustion Boilers	Commercial/Institutional	Distillate Oil	Grade 4 Oil	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
10500205	External Combustion Boilers	Space Heaters	Commercial/Institutional	Distillate Oil	
20300101	Internal Combustion Engines	Commercial/Institutional	Distillate Oil (Diesel)	Reciprocating	
20300102	Internal Combustion Engines	Commercial/Institutional	Distillate Oil (Diesel)	Turbine	
20300105	Internal Combustion Engines	Commercial/Institutional	Distillate Oil (Diesel)	Reciprocating: Crankcase Blowby	
20300106	Internal Combustion Engines	Commercial/Institutional	Distillate Oil (Diesel)	Reciprocating: Evaporative Losses (Fuel Storage and Delivery System)	
20300107	Internal Combustion Engines	Commercial/Institutional	Distillate Oil (Diesel)	Reciprocating: Exhaust	
20300108	Internal Combustion Engines	Commercial/Institutional	Distillate Oil (Diesel)	Turbine: Evaporative Losses (Fuel Storage and Delivery System)	
20300109	Internal Combustion Engines	Commercial/Institutional	Distillate Oil (Diesel)	Turbine: Exhaust	
50100602	Waste Disposal	Solid Waste Disposal - Government	Fire Fighting	Structure: Distillate Oil	
50190005	Waste Disposal	Solid Waste Disposal - Government	Auxiliary Fuel/No Emissions	Distillate Oil	
50290005	Waste Disposal	Solid Waste Disposal - Commercial/Institutional	Auxiliary Fuel/No Emissions	Distillate Oil	
2103005000 - Stationary Source Fuel Combustion; Commercial/Institutional; Residual Oil; Total: All Boiler Types					
10300401	External Combustion Boilers	Commercial/Institutional	Residual Oil	Grade 6 Oil	
10300402	External Combustion Boilers	Commercial/Institutional	Residual Oil	10-100 Million Btu/hr **	
10300403	External Combustion Boilers	Commercial/Institutional	Residual Oil	< 10 Million Btu/hr **	
10300404	External Combustion Boilers	Commercial/Institutional	Residual Oil	Grade 5 Oil	
2103006000 - Stationary Source Fuel Combustion; Commercial/Institutional; Natural Gas; Total: Boilers and IC Engines					
10300601	External Combustion Boilers	Commercial/Institutional	Natural Gas	> 100 Million Btu/hr	
10300602	External Combustion Boilers	Commercial/Institutional	Natural Gas	10-100 Million Btu/hr	
10300603	External Combustion Boilers	Commercial/Institutional	Natural Gas	< 10 Million Btu/hr	
10500206	External Combustion Boilers	Space Heaters	Commercial/Institutional	Natural Gas	
20300201	Internal Combustion Engines	Commercial/Institutional	Natural Gas	Reciprocating	
20300202	Internal Combustion Engines	Commercial/Institutional	Natural Gas	Turbine	
20300203	Internal Combustion Engines	Commercial/Institutional	Natural Gas	Turbine: Cogeneration	
20300204	Internal Combustion Engines	Commercial/Institutional	Natural Gas	Cogeneration	
20300205	Internal Combustion Engines	Commercial/Institutional	Natural Gas	Reciprocating: Crankcase Blowby	
20300206	Internal Combustion Engines	Commercial/Institutional	Natural Gas	Reciprocating: Evaporative Losses (Fuel Delivery System)	
20300207	Internal Combustion Engines	Commercial/Institutional	Natural Gas	Reciprocating: Exhaust	
20300208	Internal Combustion Engines	Commercial/Institutional	Natural Gas	Turbine: Evaporative Losses (Fuel Delivery System)	
20300209	Internal Combustion Engines	Commercial/Institutional	Natural Gas	Turbine: Exhaust	
50190006	Waste Disposal	Solid Waste Disposal - Government	Auxiliary Fuel/No Emissions	Natural Gas	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
50290006	Waste Disposal	Solid Waste Disposal - Commercial/Institutional	Auxiliary Fuel/No Emissions	Natural Gas	
2103007000 - Stationary Source Fuel Combustion; Commercial/Institutional; Liquified Petroleum Gas (LPG); Total: All Combustor Types					
10301001	External Combustion Boilers	Commercial/Institutional	Liquified Petroleum Gas (LPG)	Butane	
10301002	External Combustion Boilers	Commercial/Institutional	Liquified Petroleum Gas (LPG)	Propane	
10301003	External Combustion Boilers	Commercial/Institutional	Liquified Petroleum Gas (LPG)	Butane/Propane Mixture: Specify Percent Butane in Comments	
10500210	External Combustion Boilers	Space Heaters	Commercial/Institutional	Liquified Petroleum Gas (LPG)	
20301001	Internal Combustion Engines	Commercial/Institutional	Liquified Petroleum Gas (LPG)	Propane: Reciprocating	
20301002	Internal Combustion Engines	Commercial/Institutional	Liquified Petroleum Gas (LPG)	Butane: Reciprocating	
20301005	Internal Combustion Engines	Commercial/Institutional	Liquified Petroleum Gas (LPG)	Reciprocating: Crankcase Blowby	
20301006	Internal Combustion Engines	Commercial/Institutional	Liquified Petroleum Gas (LPG)	Reciprocating: Evaporative Losses (Fuel Storage and Delivery System)	
20301007	Internal Combustion Engines	Commercial/Institutional	Liquified Petroleum Gas (LPG)	Reciprocating: Exhaust	
50190010	Waste Disposal	Solid Waste Disposal - Government	Auxiliary Fuel/No Emissions	Liquified Petroleum Gas (LPG)	
50290010	Waste Disposal	Solid Waste Disposal - Commercial/Institutional	Auxiliary Fuel/No Emissions	Liquified Petroleum Gas (LPG)	
2103008000 - Stationary Source Fuel Combustion; Commercial/Institutional; Wood; Total: All Boiler Types					
10300901	External Combustion Boilers	Commercial/Institutional	Wood/Bark Waste	Bark-fired Boiler	
10300902	External Combustion Boilers	Commercial/Institutional	Wood/Bark Waste	Wood/Bark-fired Boiler	
10300903	External Combustion Boilers	Commercial/Institutional	Wood/Bark Waste	Wood-fired Boiler - Wet Wood (>=20% moisture)	
10300908	External Combustion Boilers	Commercial/Institutional	Wood/Bark Waste	Wood-fired Boiler - Dry Wood (<20% moisture)	
10300910	External Combustion Boilers	Commercial/Institutional	Wood/Bark Waste	Fuel cell/Dutch oven boilers **	
10300911	External Combustion Boilers	Commercial/Institutional	Wood/Bark Waste	Stoker boilers **	
10300912	External Combustion Boilers	Commercial/Institutional	Wood/Bark Waste	Fluidized bed combustion boilers	
10500209	External Combustion Boilers	Space Heaters	Commercial/Institutional	Wood	
2103011000 - Stationary Source Fuel Combustion; Commercial/Institutional; Kerosene; Total: All Combustor Types					
20300901	Internal Combustion Engines	Commercial/Institutional	Kerosene/Naphtha (Jet Fuel)	Turbine: JP-4	
20300908	Internal Combustion Engines	Commercial/Institutional	Kerosene/Naphtha (Jet Fuel)	Turbine: Evaporative Losses (Fuel Storage and Delivery System)	
20300909	Internal Combustion Engines	Commercial/Institutional	Kerosene/Naphtha (Jet Fuel)	Turbine: Exhaust	
50100603	Waste Disposal	Solid Waste Disposal - Government	Fire Fighting	Structure: Kerosene	

Table A-3. Construction Crosswalk for Point Source Subtractions

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
2311010000 - Industrial Processes; Construction: SIC 15 – 17; Residential; Total and 2311020000 - Industrial Processes; Construction: SIC 15 – 18; Industrial/Commercial/Institutional; Total					
31100101	Industrial Processes	Building Construction	Construction: Building Contractors	Site Preparation: Topsoil Removal	See Table II-2 for state-level SCC 231101000 versus 2310020000 proportions
31100102	Industrial Processes	Building Construction	Construction: Building Contractors	Site Preparation: Earth Moving (Cut and Fill)	See Table II-2 for state-level SCC 231101000 versus 2310020000 proportions
31100103	Industrial Processes	Building Construction	Construction: Building Contractors	Site Preparation: Aggregate Hauling (On Dirt)	See Table II-2 for state-level SCC 231101000 versus 2310020000 proportions
31100199	Industrial Processes	Building Construction	Construction: Building Contractors	Other Not Classified	See Table II-2 for state-level SCC 231101000 versus 2310020000 proportions
31100201	Industrial Processes	Building Construction	Demolitions/Special Trade Contracts	Mechanical or Explosive Dismemberment	See Table II-2 for state-level SCC 231101000 versus 2310020000 proportions
31100202	Industrial Processes	Building Construction	Demolitions/Special Trade Contracts	Mechanical or Explosive Dismemberment	See Table II-2 for state-level SCC 231101000 versus 2310020000 proportions
31100205	Industrial Processes	Building Construction	Demolitions/Special Trade Contracts	On-site Truck Traffic	See Table II-2 for state-level SCC 231101000 versus 2310020000 proportions
31100206	Industrial Processes	Building Construction	Demolitions/Special Trade Contracts	On-site Truck Traffic	See Table II-2 for state-level SCC 231101000 versus 2310020000 proportions
31100299	Industrial Processes	Building Construction	Demolitions/Special Trade Contracts	Other Not Classified: Construction/Demolition	See Table II-2 for state-level SCC 231101000 versus 2310020000 proportions

Table A-4. Publicly Owned Treatment Works Crosswalk for Point Source Subtractions

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
2630020000 - Waste Disposal, Treatment, and Recovery; Wastewater Treatment; Public Owned; Total Processed					
50100701	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	Entire Plant	
50100702	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	Primary Settling Tank	
50100703	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	Secondary Settling Tank	
50100704	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	Aeration Tank	
50100707	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	POTW: Headworks Screening	
50100708	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	Comminutor	
50100710	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	Collector Sewers	
50100715	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	POTW: Aerated Grit Chamber	
50100719	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	Lift Station	
50100720	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	POTW: Primary Settling Tank	
50100731	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	POTW: Diffused Air Act Sludge	
50100732	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	POTW: Mechanical Mix Air Act Sludge	
50100733	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	POTW: Pure Oxygen Act Sludge	
50100734	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	POTW: Trickling Filter	
50100740	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	POTW: Secondary Clarifier	
50100750	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	POTW: Tertiary Filters	
50100760	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	POTW: Chlorine Contact Tank	
50100761	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	POTW: Dechlorination	
50100765	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	Weir	
50100769	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	Storage Basin or Open Tank	
50100771	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	POTW: Gravity Sludge Thickener	
50100772	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	POTW: DAF Sludge Thickener	
50100781	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	POTW: Anaerobic Digester	
50100791	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	POTW: Belt Filter Press	
50100792	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	POTW: Sludge Centrifuge	
50100793	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	POTW: Sludge Drying Bed	
50100795	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	Sludge Storage Lagoons/Drying Beds	
50100799	Waste Disposal	Solid Waste Disposal - Government	Sewage Treatment	Other Not Classified	

Table A-5. Solvent Utilization Crosswalk for Point Source Subtractions

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
2401005000 - Solvent Utilization; Surface Coating; Auto Refinishing: SIC 7532; Total: All Solvent Types					
40201601	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Prime Application/Electo-deposition/Dip/Spray	Only include if NAICS code = 8111*
40201602	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Cleaning/Pretreatment	Only include if NAICS code = 8111*
40201603	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Coating Mixing	Only include if NAICS code = 8111*
40201604	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Coating Storage	Only include if NAICS code = 8111*
40201605	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Equipment Cleanup	Only include if NAICS code = 8111*
40201606	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Topcoat Operation	Only include if NAICS code = 8111*
40201607	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Sealers	Only include if NAICS code = 8111*
40201608	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Deadeners	Only include if NAICS code = 8111*
40201609	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Anti-corrosion Priming	Only include if NAICS code = 8111*
40201619	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Prime Surfacing Operation	Only include if NAICS code = 8111*
40201620	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Repair Topcoat Application Area	Only include if NAICS code = 8111*
40201621	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Prime Coating: Solvent-borne - Automobiles	Only include if NAICS code = 8111*
40201622	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Prime Coating: Electro-deposition - Automobiles	Only include if NAICS code = 8111*
40201623	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Guide Coating: Solvent-borne - Automobiles	Only include if NAICS code = 8111*
40201624	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Guide Coating: Water-borne - Automobiles	Only include if NAICS code = 8111*
40201625	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Topcoat: Solvent-borne - Automobiles	Only include if NAICS code = 8111*
40201626	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Topcoat: Water-borne - Automobiles	Only include if NAICS code = 8111*
40201627	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Prime Coating: Solvent-borne - Light Trucks	Only include if NAICS code = 8111*
40201628	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Prime Coating: Electro-deposition - Light Trucks	Only include if NAICS code = 8111*
40201629	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Guide Coating: Solvent-borne - Light Trucks	Only include if NAICS code = 8111*
40201630	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Guide Coating: Water-borne - Light Trucks	Only include if NAICS code = 8111*
40201631	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Topcoat: Solvent-borne - Light Trucks	Only include if NAICS code = 8111*

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
40201632	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Topcoat: Water-borne - Light Trucks	Only include if NAICS code = 8111*
40201699	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Other Not Classified	Only include if NAICS code = 8111*
2401015000 - Solvent Utilization; Surface Coating; Factory Finished Wood: SIC 2426 thru 242; Total: All Solvent Types					
40202101	Petroleum and Solvent Evaporation	Surface Coating Operations	Flatwood Products	Base Coat	
40202103	Petroleum and Solvent Evaporation	Surface Coating Operations	Flatwood Products	Coating Mixing	
40202104	Petroleum and Solvent Evaporation	Surface Coating Operations	Flatwood Products	Coating Storage	
40202105	Petroleum and Solvent Evaporation	Surface Coating Operations	Flatwood Products	Equipment Cleanup	
40202106	Petroleum and Solvent Evaporation	Surface Coating Operations	Flatwood Products	Topcoat	
40202107	Petroleum and Solvent Evaporation	Surface Coating Operations	Flatwood Products	Filler	
40202108	Petroleum and Solvent Evaporation	Surface Coating Operations	Flatwood Products	Sealer	
40202109	Petroleum and Solvent Evaporation	Surface Coating Operations	Flatwood Products	Inks	
40202110	Petroleum and Solvent Evaporation	Surface Coating Operations	Flatwood Products	Grove Coat Application	
40202111	Petroleum and Solvent Evaporation	Surface Coating Operations	Flatwood Products	Stain Application	
40202117	Petroleum and Solvent Evaporation	Surface Coating Operations	Flatwood Products	Filler Sander	
40202118	Petroleum and Solvent Evaporation	Surface Coating Operations	Flatwood Products	Sealer Sander	
40202131	Petroleum and Solvent Evaporation	Surface Coating Operations	Flatwood Products	Water-borne Coating	
40202132	Petroleum and Solvent Evaporation	Surface Coating Operations	Flatwood Products	Solvent-borne Coating	
40202133	Petroleum and Solvent Evaporation	Surface Coating Operations	Flatwood Products	Ultraviolet Coating	
40202140	Petroleum and Solvent Evaporation	Surface Coating Operations	Flatwood Products	Surface Preparation (Includes Tempering, Sanding, Brushing, Grove Cut)	
40202199	Petroleum and Solvent Evaporation	Surface Coating Operations	Flatwood Products	Other Not Classified	
2401020000 - Solvent Utilization; Surface Coating; Wood Furniture: SIC 25; Total: All Solvent Types					
40201901	Petroleum and Solvent Evaporation	Surface Coating Operations	Wood Furniture Surface Coating	Coating Operation	
40201903	Petroleum and Solvent Evaporation	Surface Coating Operations	Wood Furniture Surface Coating	Coating Mixing	
40201904	Petroleum and Solvent Evaporation	Surface Coating Operations	Wood Furniture Surface Coating	Coating Storage	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
40201999	Petroleum and Solvent Evaporation	Surface Coating Operations	Wood Furniture Surface Coating	Other Not Classified	
2401025000 - Solvent Utilization; Surface Coating; Metal Furniture: SIC 25; Total: All Solvent Types					
40202001	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Coating Operation	
40202002	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Cleaning/Pretreatment	
40202003	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Coating Mixing	
40202004	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Coating Storage	
40202005	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Equipment Cleanup	
40202010	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Prime Coat Application	
40202011	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Prime Coat Application: Spray, High Solids	
40202012	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Prime Coat Application: Spray, Water-borne	
40202013	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Prime Coat Application: Dip	
40202014	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Prime Coat Application: Flow Coat	
40202015	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Prime Coat Application: Flashoff	
40202020	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Topcoat Application	
40202021	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Topcoat Application: Spray, High Solids	
40202022	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Topcoat Application: Spray, Water-borne	
40202023	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Topcoat Application: Dip	
40202024	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Topcoat Application: Flow Coat	
40202025	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Topcoat Application: Flashoff	
40202031	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Single Spray Line: General	
40202032	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Spray Dip Line: General ** (Use 4-02-020-37)	
40202033	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Spray High Solids Coating ** (Use 4-02-020-35)	
40202034	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Spray Water-borne Coating ** (Use 4-02-020-36)	
40202035	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Single Coat Application: Spray, High Solids	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
40202036	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Single Coat Application: Spray, Water-borne	
40202037	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Single Coat Application: Dip	
40202038	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Single Coat Application: Flow Coat	
40202039	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Single Coat Application: Flashoff	
40202099	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Furniture Operations	Other Not Classified	
2401030000 - Solvent Utilization; Surface Coating; Paper: SIC 26; Total: All Solvent Types					
40201301	Petroleum and Solvent Evaporation	Surface Coating Operations	Paper Coating	Coating Operation	
40201303	Petroleum and Solvent Evaporation	Surface Coating Operations	Paper Coating	Coating Mixing	
40201304	Petroleum and Solvent Evaporation	Surface Coating Operations	Paper Coating	Coating Storage	
40201305	Petroleum and Solvent Evaporation	Surface Coating Operations	Paper Coating	Equipment Cleanup	
40201310	Petroleum and Solvent Evaporation	Surface Coating Operations	Paper Coating	Coating Application: Knife Coater	
40201320	Petroleum and Solvent Evaporation	Surface Coating Operations	Paper Coating	Coating Application: Reverse Roll Coater	
40201330	Petroleum and Solvent Evaporation	Surface Coating Operations	Paper Coating	Coating Application: Rotogravure Printer	
40201399	Petroleum and Solvent Evaporation	Surface Coating Operations	Paper Coating	Other Not Classified	
2401040000 - Solvent Utilization; Surface Coating; Metal Cans: SIC 341; Total: All Solvent Types					
40201702	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Cleaning/Pretreatment	
40201703	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Coating Mixing	
40201704	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Coating Storage	
40201705	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Equipment Cleanup	
40201706	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Solvent Storage	
40201721	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Two Piece Exterior Base Coating	
40201722	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Interior Spray Coating	
40201723	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Sheet Base Coating (Interior)	
40201724	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Sheet Base Coating (Exterior)	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
40201725	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Side Seam Spray Coating	
40201726	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	End Sealing Compound (Also See 4-02-017-36 & -37)	
40201727	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Lithography	
40201728	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Over Varnish	
40201729	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Exterior End Coating	
40201731	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Three-piece Can Sheet Base Coating	
40201732	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Three-piece Can Sheet Lithographic Coating Line	
40201733	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Three-piece Can-side Seam Spray Coating	
40201734	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Three-piece Can Interior Body Spray Coat	
40201735	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Two-piece Can Coating Line	
40201736	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Two-piece Can End Sealing Compound	
40201737	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Three Piece Can End Sealing Compound	
40201738	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Two Piece Can Lithographic Coating Line	
40201739	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Three Piece Can Coating Line (All Coating Solvent Emission Points)	
40201799	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Can Coating	Other Not Classified	
2401045000 - Solvent Utilization; Surface Coating; Metal Coils: SIC 3498; Total: All Solvent Types					
40201801	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Coil Coating	Prime Coating Application	
40201802	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Coil Coating	Cleaning/Pretreatment	
40201803	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Coil Coating	Solvent Mixing	
40201804	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Coil Coating	Solvent Storage (Use 4-07-004-01 thru 4-07-999-98 if possible)	
40201805	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Coil Coating	Equipment Cleanup	
40201806	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Coil Coating	Finish Coating	
40201807	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Coil Coating	Coating Storage	
40201899	Petroleum and Solvent Evaporation	Surface Coating Operations	Metal Coil Coating	Other Not Classified	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
2401055000 - Solvent Utilization; Surface Coating; Machinery and Equipment: SIC 35; Total: All Solvent Types					
40202501	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Coating Operation	
40202502	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Cleaning/Pretreatment	
40202503	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Coating Mixing	
40202504	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Coating Storage	
40202505	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Equipment Cleanup	
40202510	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Prime Coat Application	
40202511	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Prime Coat Application: Spray, High Solids	
40202512	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Prime Coat Application: Spray, Water-borne	
40202515	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Prime Coat Application: Flashoff	
40202520	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Topcoat Application	
40202521	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Topcoat Application: Spray, High Solids	
40202522	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Topcoat Application: Spray, Water-borne	
40202523	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Topcoat Application: Dip	
40202524	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Topcoat Application: Flow Coat	
40202525	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Topcoat Application: Flashoff	
40202531	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Conveyor Single Flow	
40202532	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Conveyor Single Dip	
40202533	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Conveyor Single Spray	
40202534	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Conveyor Two Coat, Flow and Spray	
40202535	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Conveyor Two Coat, Dip and Spray	
40202536	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Conveyor Two Coat, Spray	
40202537	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Manual Two Coat, Spray and Air Dry	
40202542	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Single Coat Application: Spray, High Solids	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
40202543	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Single Coat Application: Spray, Water-borne	
40202544	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Single Coat Application: Dip	
40202545	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Single Coat Application: Flow Coat	
40202546	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Single Coat Application: Flashoff	
40202599	Petroleum and Solvent Evaporation	Surface Coating Operations	Miscellaneous Metal Parts	Other Not Classified	
2401060000 - Solvent Utilization; Surface Coating; Large Appliances: SIC 363; Total: All Solvent Types					
40201401	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Appliances	Prime Coating Operation	
40201402	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Appliances	Cleaning/Pretreatment	
40201403	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Appliances	Coating Mixing	
40201404	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Appliances	Coating Storage	
40201405	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Appliances	Equipment Cleanup	
40201406	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Appliances	Topcoat Spray	
40201410	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Appliances	Prime Coat Flashoff	
40201411	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Appliances	Topcoat Flashoff	
40201431	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Appliances	Coating Line: General	
40201432	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Appliances	Prime Air Spray	
40201433	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Appliances	Prime Electrostatic Spray	
40201434	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Appliances	Prime Flow Coat	
40201435	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Appliances	Prime Dip Coat	
40201436	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Appliances	Prime Electro-deposition	
40201437	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Appliances	Top Air Spray	
40201438	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Appliances	Top Electrostatic Spray	
40201499	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Appliances	Other Not Classified	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
2401065000 - Solvent Utilization; Surface Coating; Electronic and Other Electrical: SIC 36 – 363; Total: All Solvent Types					
40203001	Petroleum and Solvent Evaporation	Surface Coating Operations	Semiconductors	Specify Solvent	
2401070000 - Solvent Utilization; Surface Coating; Motor Vehicles: SIC 371; Total: All Solvent Types					
40201601	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Prime Application/Electo-deposition/Dip/Spray	Include unless NAICS = 8111*
40201602	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Cleaning/Pretreatment	Include unless NAICS = 8111*
40201603	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Coating Mixing	Include unless NAICS = 8111*
40201604	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Coating Storage	Include unless NAICS = 8111*
40201605	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Equipment Cleanup	Include unless NAICS = 8111*
40201606	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Topcoat Operation	Include unless NAICS = 8111*
40201607	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Sealers	Include unless NAICS = 8111*
40201608	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Deadeners	Include unless NAICS = 8111*
40201609	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Anti-corrosion Priming	Include unless NAICS = 8111*
40201619	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Prime Surfacing Operation	Include unless NAICS = 8111*
40201620	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Repair Topcoat Application Area	Include unless NAICS = 8111*
40201621	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Prime Coating: Solvent-borne - Automobiles	Include unless NAICS = 8111*
40201622	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Prime Coating: Electro-deposition - Automobiles	Include unless NAICS = 8111*
40201623	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Guide Coating: Solvent-borne - Automobiles	Include unless NAICS = 8111*
40201624	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Guide Coating: Water-borne - Automobiles	Include unless NAICS = 8111*
40201625	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Topcoat: Solvent-borne - Automobiles	Include unless NAICS = 8111*
40201626	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Topcoat: Water-borne - Automobiles	Include unless NAICS = 8111*
40201627	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Prime Coating: Solvent-borne - Light Trucks	Include unless NAICS = 8111*
40201628	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Prime Coating: Electro-deposition - Light Trucks	Include unless NAICS = 8111*
40201629	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Guide Coating: Solvent-borne - Light Trucks	Include unless NAICS = 8111*
40201630	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Guide Coating: Water-borne - Light Trucks	Include unless NAICS = 8111*

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
40201631	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Topcoat: Solvent-borne - Light Trucks	Include unless NAICS = 8111*
40201632	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Topcoat: Water-borne - Light Trucks	Include unless NAICS = 8111*
40201699	Petroleum and Solvent Evaporation	Surface Coating Operations	Automobiles and Light Trucks	Other Not Classified	Include unless NAICS = 8111*
2401075000 - Solvent Utilization; Surface Coating; Aircraft: SIC 372; Total: All Solvent Types					
40202401	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Aircraft	Prime Coating Operation	
40202402	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Aircraft	Cleaning/Pretreatment	
40202403	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Aircraft	Coating Mixing	
40202404	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Aircraft	Coating Storage	
40202405	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Aircraft	Equipment Cleanup	
40202406	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Aircraft	Topcoat Operation	
40202499	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Aircraft	Other Not Classified	
2401080000 - Solvent Utilization; Surface Coating; Marine: SIC 373; Total: All Solvent Types					
40202301	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Ships	Prime Coating Operation	
40202302	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Ships	Cleaning/Pretreatment	
40202303	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Ships	Coating Mixing	
40202304	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Ships	Coating Storage	
40202305	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Ships	Equipment Cleanup	
40202306	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Ships	Topcoat Operation	
40202399	Petroleum and Solvent Evaporation	Surface Coating Operations	Large Ships	Other Not Classified	
2401090000 - Solvent Utilization; Surface Coating; Miscellaneous Manufacturing; Total: All Solvent Types					
40202201	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Coating Operation	
40202202	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Cleaning/Pretreatment	
40202203	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Coating Mixing	
40202204	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Coating Storage	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
40202205	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Equipment Cleanup	
40202206	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Business: Baseline Coating Mix	
40202207	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Business: Low Solids Solvent-borne Coating	
40202208	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Business: Medium Solids Solvent-borne Coating	
40202209	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Business: High Solids Coating (25% Efficiency)	
40202210	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Business: High Solids Solvent-borne Coating (40% Efficiency)	
40202211	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Business: Water-borne Coating	
40202212	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Business: Low Solids Solvent-borne EMI/RFI Shielding Coating	
40202213	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Business: Higher Solids Solvent-borne EMI/RFI Shielding Coating	
40202214	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Business: Water-borne EMI/RFI Shielding Coating	
40202215	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Business: Zinc Arc Spray	
40202220	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Prime Coat Application	
40202229	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Prime Coat Flashoff	
40202230	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Color Coat Application	
40202239	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Color Coat Flashoff	
40202240	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Topcoat/Texture Coat Application	
40202249	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Topcoat/Texture Coat Flashoff	
40202250	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	EMI/RFI Shielding Coat Application	
40202259	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	EMI/RFI Shielding Coat Flashoff	
40202270	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Sanding/Grit Blasting Prior to EMI/RFI Shielding Coat Application	
40202280	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Maskant Application	
40202299	Petroleum and Solvent Evaporation	Surface Coating Operations	Plastic Parts	Other Not Classified	
2415000000 - Solvent Utilization; Degreasing; All Processes/All Industries; Total: All Solvent Types					
40100201	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Stoddard (Petroleum Solvent): Open-top Vapor Degreasing	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
40100202	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	1,1,1-Trichloroethane (Methyl Chloroform): Open-top Vapor Degreasing	
40100203	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Perchloroethylene: Open-top Vapor Degreasing	
40100204	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Methylene Chloride: Open-top Vapor Degreasing	
40100205	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Trichloroethylene: Open-top Vapor Degreasing	
40100206	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Toluene: Open-top Vapor Degreasing	
40100207	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Trichlorotrifluoroethane (Freon): Open-top Vapor Degreasing	
40100208	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Chlorosolve: Open-top Vapor Degreasing	
40100209	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Butyl Acetate: Open-top Vapor Degreasing	
40100215	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Entire Unit: Open-top Vapor Degreasing	
40100216	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Degreaser: Entire Unit	
40100217	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Entire Unit	
40100221	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Stoddard (Petroleum Solvent): Conveyorized Vapor Degreasing	
40100222	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	1,1,1-Trichloroethane (Methyl Chloroform):Conveyorized Vapor Degreaser	
40100223	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Perchloroethylene: Conveyorized Vapor Degreasing	
40100224	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Methylene Chloride: Conveyorized Vapor Degreasing	
40100225	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Trichloroethylene: Conveyorized Vapor Degreasing	
40100235	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Entire Unit: with Vaporized Solvent: Conveyorized Vapor Degreasing	
40100236	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Entire Unit: with Non-boiling Solvent: Conveyorized Vapor Degreasing	
40100251	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Stoddard (Petroleum Solvent): General Degreasing Units	
40100252	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	1,1,1-Trichloroethane (Methyl Chloroform): General Degreasing Units	
40100253	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Perchloroethylene: General Degreasing Units	
40100254	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Methylene Chloride: General Degreasing Units	
40100255	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Trichloroethylene: General Degreasing Units	
40100256	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Toluene: General Degreasing Units	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
40100257	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Trichlorotrifluoroethane (Freon): General Degreasing Units	
40100258	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Trichlorofluoromethane: General Degreasing Units	
40100259	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	1,1,1-Trichloroethane (Methyl Chloroform): General Degreasing Units	
40100295	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Other Not Classified: General Degreasing Units	
40100296	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Other Not Classified: General Degreasing Units	
40100297	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Other Not Classified: Open-top Vapor Degreasing	
40100298	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Other Not Classified: Conveyorized Vapor Degreasing	
40100299	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Degreasing	Other Not Classified: Open-top Vapor Degreasing	
40100301	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Cold Solvent Cleaning/Stripping	Methanol	
40100302	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Cold Solvent Cleaning/Stripping	Methylene Chloride	
40100303	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Cold Solvent Cleaning/Stripping	Stoddard (Petroleum Solvent)	
40100304	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Cold Solvent Cleaning/Stripping	Perchloroethylene	
40100305	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Cold Solvent Cleaning/Stripping	1,1,1-Trichloroethane (Methyl Chloroform)	
40100306	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Cold Solvent Cleaning/Stripping	Trichloroethylene	
40100307	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Cold Solvent Cleaning/Stripping	Isopropyl Alcohol	
40100308	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Cold Solvent Cleaning/Stripping	Methyl Ethyl Ketone	
40100309	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Cold Solvent Cleaning/Stripping	Freon	
40100310	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Cold Solvent Cleaning/Stripping	Acetone	
40100311	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Cold Solvent Cleaning/Stripping	Glycol Ethers	
40100335	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Cold Solvent Cleaning/Stripping	Entire Unit	
40100336	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Cold Solvent Cleaning/Stripping	Degreaser: Entire Unit	
40100398	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Cold Solvent Cleaning/Stripping	Other Not Classified	
40100399	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Cold Solvent Cleaning/Stripping	Other Not Classified	
40100401	Petroleum and Solvent Evaporation	Organic Solvent Evaporation	Knit Fabric Scouring with Chlorinated Solvent	Perchloroethylene	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
2425000000 - Solvent Utilization; Graphic Arts; All Processes; Total: All Solvent Types					
40500101	Petroleum and Solvent Evaporation	Printing/Publishing	Drying	Dryer	
40500199	Petroleum and Solvent Evaporation	Printing/Publishing	Drying	Dryer	
40500201	Petroleum and Solvent Evaporation	Printing/Publishing	General	Letter Press: 2751	
40500202	Petroleum and Solvent Evaporation	Printing/Publishing	General	Ink Thinning Solvent (Kerosene)	
40500203	Petroleum and Solvent Evaporation	Printing/Publishing	General	Ink Thinning Solvents (Mineral Solvents)	
40500211	Petroleum and Solvent Evaporation	Printing/Publishing	General	Letter Press: 2751	
40500212	Petroleum and Solvent Evaporation	Printing/Publishing	General	Printing: Letter Press	
40500215	Petroleum and Solvent Evaporation	Printing/Publishing	General	Letterpress: Cleaning Solution	
40500301	Petroleum and Solvent Evaporation	Printing/Publishing	General	Printing: Flexographic	
40500302	Petroleum and Solvent Evaporation	Printing/Publishing	General	Ink Thinning Solvent (Carbitol)	
40500303	Petroleum and Solvent Evaporation	Printing/Publishing	General	Ink Thinning Solvent (Cellosolve)	
40500304	Petroleum and Solvent Evaporation	Printing/Publishing	General	Ink Thinning Solvent (Ethyl Alcohol)	
40500305	Petroleum and Solvent Evaporation	Printing/Publishing	General	Ink Thinning Solvent (Isopropyl Alcohol)	
40500306	Petroleum and Solvent Evaporation	Printing/Publishing	General	Ink Thinning Solvent (n-Propyl Alcohol)	
40500307	Petroleum and Solvent Evaporation	Printing/Publishing	General	Ink Thinning Solvent (Naphtha)	
40500311	Petroleum and Solvent Evaporation	Printing/Publishing	General	Printing: Flexographic	
40500312	Petroleum and Solvent Evaporation	Printing/Publishing	General	Printing: Flexographic	
40500314	Petroleum and Solvent Evaporation	Printing/Publishing	General	Printing: Flexographic: Propyl Alcohol Cleanup	
40500315	Petroleum and Solvent Evaporation	Printing/Publishing	General	Flexographic: Steam: Water-based	
40500316	Petroleum and Solvent Evaporation	Printing/Publishing	General	Flexographic: Steam: Water-based	
40500317	Petroleum and Solvent Evaporation	Printing/Publishing	General	Flexographic: Steam: Water-based	
40500318	Petroleum and Solvent Evaporation	Printing/Publishing	General	Flexographic: Steam: Water-based in Ink	
40500319	Petroleum and Solvent Evaporation	Printing/Publishing	General	Flexographic: Steam: Water-based Ink Storage	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
40500401	Petroleum and Solvent Evaporation	Printing/Publishing	General	Lithographic: 2752	
40500411	Petroleum and Solvent Evaporation	Printing/Publishing	General	Lithographic: 2752	
40500412	Petroleum and Solvent Evaporation	Printing/Publishing	General	Lithographic: 2752	
40500413	Petroleum and Solvent Evaporation	Printing/Publishing	General	Lithographic: Isopropyl Alcohol Cleanup	
40500414	Petroleum and Solvent Evaporation	Printing/Publishing	General	Flexographic: Propyl Alcohol Cleanup	
40500415	Petroleum and Solvent Evaporation	Printing/Publishing	General	Offset Lithography: Dampening Solution with Alcohol Substitute	
40500416	Petroleum and Solvent Evaporation	Printing/Publishing	General	Offset Lithography: Dampening Solution with High Solvent Content	
40500417	Petroleum and Solvent Evaporation	Printing/Publishing	General	Offset Lithography: Cleaning Solution: Water-based	
40500418	Petroleum and Solvent Evaporation	Printing/Publishing	General	Offset Lithography: Dampening Solution with Isopropyl Alcohol	
40500421	Petroleum and Solvent Evaporation	Printing/Publishing	General	Offset Lithography: Heatset Ink Mixing	
40500422	Petroleum and Solvent Evaporation	Printing/Publishing	General	Offset Lithography: Heatset Solvent Storage	
40500431	Petroleum and Solvent Evaporation	Printing/Publishing	General	Offset Lithography: Nonheated Lithographic Inks	
40500432	Petroleum and Solvent Evaporation	Printing/Publishing	General	Offset Lithography: Nonheated Lithographic Inks	
40500433	Petroleum and Solvent Evaporation	Printing/Publishing	General	Offset Lithography: Nonheated Lithographic Inks	
40500501	Petroleum and Solvent Evaporation	Printing/Publishing	General	Gravure: 2754	
40500502	Petroleum and Solvent Evaporation	Printing/Publishing	General	Ink Thinning Solvent: Dimethylformamide	
40500503	Petroleum and Solvent Evaporation	Printing/Publishing	General	Ink Thinning Solvent: Ethyl Acetate	
40500506	Petroleum and Solvent Evaporation	Printing/Publishing	General	Ink Thinning Solvent: Methyl Ethyl Ketone	
40500507	Petroleum and Solvent Evaporation	Printing/Publishing	General	Ink Thinning Solvent: Methyl Isobutyl Ketone	
40500510	Petroleum and Solvent Evaporation	Printing/Publishing	General	Ink Thinning Solvent: Toluene	
40500511	Petroleum and Solvent Evaporation	Printing/Publishing	General	Gravure: 2754	
40500512	Petroleum and Solvent Evaporation	Printing/Publishing	General	Gravure: 2754	
40500513	Petroleum and Solvent Evaporation	Printing/Publishing	General	Gravure: 2754	
40500514	Petroleum and Solvent Evaporation	Printing/Publishing	General	Gravure: Cleanup Solvent	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
40500597	Petroleum and Solvent Evaporation	Printing/Publishing	General	Other Not Classified	
40500598	Petroleum and Solvent Evaporation	Printing/Publishing	General	Ink Thinning Solvent: Other Not Specified	
40500599	Petroleum and Solvent Evaporation	Printing/Publishing	General	Ink Thinning Solvent: Other Not Specified	
40500601	Petroleum and Solvent Evaporation	Printing/Publishing	General	Ink Mixing	
40500701	Petroleum and Solvent Evaporation	Printing/Publishing	General	Solvent Storage	
40500801	Petroleum and Solvent Evaporation	Printing/Publishing	General	Screen Printing	
40500802	Petroleum and Solvent Evaporation	Printing/Publishing	General	Fugitive Emissions: Cleaning Rags	
40500811	Petroleum and Solvent Evaporation	Printing/Publishing	General	Screen Printing	
40500812	Petroleum and Solvent Evaporation	Printing/Publishing	General	Screen Printing	
40588801	Petroleum and Solvent Evaporation	Printing/Publishing	Fugitive Emissions	Specify in Comments Field	
40588802	Petroleum and Solvent Evaporation	Printing/Publishing	Fugitive Emissions	Specify in Comments Field	
40588803	Petroleum and Solvent Evaporation	Printing/Publishing	Fugitive Emissions	Specify in Comments Field	
40588804	Petroleum and Solvent Evaporation	Printing/Publishing	Fugitive Emissions	Specify in Comments Field	
40588805	Petroleum and Solvent Evaporation	Printing/Publishing	Fugitive Emissions	Specify in Comments Field	

Table A-6. Gasoline Distribution Crosswalk for Point Source Subtractions

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
2501050120 - Storage and Transport; Petroleum and Petroleum Product Storage; Bulk Terminals: All Evaporative Losses; Gasoline					
40400101	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 13: Breathing Loss (67000 Bbl Capacity) - Fixed Roof Tank	
40400102	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 10: Breathing Loss (67000 Bbl Capacity) - Fixed Roof Tank	
40400103	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 7: Breathing Loss (67000 Bbl. Capacity) - Fixed Roof Tank	
40400104	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 13: Breathing Loss (250000 Bbl Capacity)-Fixed Roof Tank	
40400105	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 10: Breathing Loss (250000 Bbl Capacity)-Fixed Roof Tank	
40400106	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 7: Breathing Loss (250000 Bbl Capacity) - Fixed Roof Tank	
40400107	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 13: Working Loss (Diam. Independent) - Fixed Roof Tank	
40400108	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 10: Working Loss (Diam. Independent) - Fixed Roof Tank	
40400109	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 7: Working Loss (Diam. Independent) - Fixed Roof Tank	
40400110	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 13: Standing Loss (67000 Bbl Capacity)-Float. Roof Tank	
40400111	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 10: Standing Loss (67000 Bbl Capacity)-Float. Roof Tank	
40400112	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 7: Standing Loss (67000 Bbl Capacity)- Floating Roof Tank	
40400113	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 13: Standing Loss (250000 Bbl Cap.) - Floating Roof Tank	
40400114	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 10: Standing Loss (250000 Bbl Cap.) - Floating Roof Tank	
40400115	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 7: Standing Loss (250000 Bbl Cap.) - Floating Roof Tank	
40400116	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 13/10/7: Withdrawal Loss (67000 Bbl Cap.) - Float Rf Tnk	
40400117	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 13/10/7: Withdrawal Loss (250000 Bbl Cap.) - Float Rf Tnk	
40400118	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 13: Filling Loss (10500 Bbl Cap.) - Variable Vapor Space	
40400119	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 10: Filling Loss (10500 Bbl Cap.) - Variable Vapor Space	
40400120	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 7: Filling Loss (10500 Bbl Cap.) - Variable Vapor Space	
40400131	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 13: Standing Loss - Ext. Floating Roof w/ Primary Seal	
40400132	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 10: Standing Loss - Ext. Floating Roof w/ Primary Seal	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
40400133	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 7: Standing Loss - External Floating Roof w/ Primary Seal	
40400141	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 13: Standing Loss - Ext. Floating Roof w/ Secondary Seal	
40400142	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 10: Standing Loss - Ext. Floating Roof w/ Secondary Seal	
40400143	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 7: Standing Loss - Ext. Floating Roof w/ Secondary Seal	
40400148	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 13/10/7: Withdrawal Loss - Ext. Float Roof (Pri/Sec Seal)	
40400150	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Miscellaneous Losses/Leaks: Loading Racks	
40400151	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Valves, Flanges, and Pumps	
40400152	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Vapor Collection Losses	
40400153	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Vapor Control Unit Losses	
40400161	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 13: Standing Loss - Int. Floating Roof w/ Primary Seal	
40400162	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 10: Standing Loss - Int. Floating Roof w/ Primary Seal	
40400163	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 7: Standing Loss - Internal Floating Roof w/ Primary Seal	
40400171	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 13: Standing Loss - Int. Floating Roof w/ Secondary Seal	
40400172	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 10: Standing Loss - Int. Floating Roof w/ Secondary Seal	
40400173	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 7: Standing Loss - Int. Floating Roof w/ Secondary Seal	
40400178	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Gasoline RVP 13/10/7: Withdrawal Loss - Int. Float Roof (Pri/Sec Seal)	
2501055120 - Storage and Transport; Petroleum and Petroleum Product Storage; Bulk Plants: All Evaporative Losses; Gasoline					
40400201	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 13: Breathing Loss (67000 Bbl Capacity) - Fixed Roof Tank	
40400202	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 10: Breathing Loss (67000 Bbl Capacity) - Fixed Roof Tank	
40400203	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 7: Breathing Loss (67000 Bbl. Capacity) - Fixed Roof Tank	
40400204	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 13: Working Loss (67000 Bbl. Capacity) - Fixed Roof Tank	
40400205	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 10: Working Loss (67000 Bbl. Capacity) - Fixed Roof Tank	
40400206	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 7: Working Loss (67000 Bbl. Capacity) - Fixed Roof Tank	
40400207	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 13: Standing Loss (67000 Bbl Cap.) - Floating Roof Tank	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
40400208	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 10: Standing Loss (67000 Bbl Cap.) - Floating Roof Tank	
40400209	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 7: Standing Loss (67000 Bbl Cap.) - Floating Roof Tank	
40400210	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 13/10/7: Withdrawal Loss (67000 Bbl Cap.) - Float Rf Tnk	
40400211	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 13: Filling Loss (10500 Bbl Cap.) - Variable Vapor Space	
40400212	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 10: Filling Loss (10500 Bbl Cap.) - Variable Vapor Space	
40400213	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 7: Filling Loss (10500 Bbl Cap.) - Variable Vapor Space	
40400231	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 13: Standing Loss - Ext. Floating Roof w/ Primary Seal	
40400232	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 10: Standing Loss - Ext. Floating Roof w/ Primary Seal	
40400233	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 7: Standing Loss - External Floating Roof w/ Primary Seal	
40400241	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 13: Standing Loss - Ext. Floating Roof w/ Secondary Seal	
40400242	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 10: Standing Loss - Ext. Floating Roof w/ Secondary Seal	
40400243	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 7: Standing Loss - Ext. Floating Roof w/ Secondary Seal	
40400248	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 10/13/7: Withdrawal Loss - Ext. Float Roof (Pri/Sec Seal)	
40400250	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Loading Racks	
40400251	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Valves, Flanges, and Pumps	
40400252	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Miscellaneous Losses/Leaks: Vapor Collection Losses	
40400253	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Miscellaneous Losses/Leaks: Vapor Control Unit Losses	
40400261	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 13: Standing Loss - Int. Floating Roof w/ Primary Seal	
40400262	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 10: Standing Loss - Int. Floating Roof w/ Primary Seal	
40400263	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 7: Standing Loss - Internal Floating Roof w/ Primary Seal	
40400271	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 13: Standing Loss - Int. Floating Roof w/ Secondary Seal	
40400272	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 10: Standing Loss - Int. Floating Roof w/ Secondary Seal	
40400273	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 7: Standing Loss - Int. Floating Roof w/ Secondary Seal	
40400278	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Gasoline RVP 10/13/7: Withdrawal Loss - Int. Float Roof (Pri/Sec Seal)	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
40400401	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Petrol Prods - Undergrd Tanks	Gasoline RVP 13: Breathing Loss	
40400402	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Petrol Prods - Undergrd Tanks	Gasoline RVP 13: Working Loss	
40400403	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Petrol Prods - Undergrd Tanks	Gasoline RVP 10: Breathing Loss	
40400404	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Petrol Prods - Undergrd Tanks	Gasoline RVP 10: Working Loss	
40400405	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Petrol Prods - Undergrd Tanks	Gasoline RVP 7: Breathing Loss	
40400406	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Petrol Prods - Undergrd Tanks	Gasoline RVP 7: Working Loss	
40600101	Petroleum and Solvent Evaporation	Transport. & Marketing of Petrol Product	Tank Cars/Trucks	Gasoline: Splash Loading **	
40600126	Petroleum and Solvent Evaporation	Transport. & Marketing of Petrol Product	Tank Cars/Trucks	Gasoline: Submerged Loading **	
40600131	Petroleum and Solvent Evaporation	Transport. & Marketing of Petrol Product	Tank Cars/Trucks	Gasoline: Submerged Loading (Normal Service)	
40600136	Petroleum and Solvent Evaporation	Transport. & Marketing of Petrol Product	Tank Cars/Trucks	Gasoline: Splash Loading (Normal Service)	
40600141	Petroleum and Solvent Evaporation	Transport. & Marketing of Petrol Product	Tank Cars/Trucks	Gasoline: Submerged Loading (Balanced Service)	
40600144	Petroleum and Solvent Evaporation	Transport. & Marketing of Petrol Product	Tank Cars/Trucks	Gasoline: Splash Loading (Balanced Service)	
40600147	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Tank Cars/Trucks	Gasoline: Submerged Loading (Clean Tanks)	
2501060051 - Storage and Transport; Petroleum and Petroleum Product Storage; Gasoline Service Stations; Stage 1: Submerged Filling					
40600302	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Submerged Filling w/o Controls	
40600305	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Unloading **	Emissions from SCC 40600305 allocated to 2501060051, 2501060052, and 2501060053 based on proportion of total emissions for these SCCs.
40600399	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Not Classified **	Emissions from SCC 40600399 allocated to 2501060051, 2501060052, and 2501060053 based on proportion of total emissions for these SCCs.
40600702	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Consumer (Corporate) Fleet Refueling - Stage I	Submerged Filling w/o Controls	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
2501060052 - Storage and Transport; Petroleum and Petroleum Product Storage; Gasoline Service Stations; Stage 1: Splash Filling					
40600301	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Splash Filling	
40600305	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Unloading **	Emissions from SCC 40600305 allocated to 2501060051, 2501060052, and 2501060053 based on proportion of total emissions for these SCCs.
40600399	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Not Classified **	Emissions from SCC 40600399 allocated to 2501060051, 2501060052, and 2501060053 based on proportion of total emissions for these SCCs.
40600701	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Consumer (Corporate) Fleet Refueling - Stage I	Splash Filling	
2501060053 - Storage and Transport; Petroleum and Petroleum Product Storage; Gasoline Service Stations; Stage 1: Balanced Submerged Filling					
40600305	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Unloading **	Emissions from SCC 40600305 allocated to 2501060051, 2501060052, and 2501060053 based on proportion of total emissions for these SCCs.
40600306	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Balanced Submerged Filling	
40600399	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Not Classified **	Emissions from SCC 40600399 allocated to 2501060051, 2501060052, and 2501060053 based on proportion of total emissions for these SCCs.
40600706	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Consumer (Corporate) Fleet Refueling - Stage I	Balanced Submerged Filling	
2501060100 - Storage and Transport; Petroleum and Petroleum Product Storage; Gasoline Service Stations; Stage 2: Total					
40600401	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Filling Vehicle Gas Tanks - Stage II	Vapor Loss w/o Controls	
40600402	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Filling Vehicle Gas Tanks - Stage II	Liquid Spill Loss w/o Controls	
40600403	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Filling Vehicle Gas Tanks - Stage II	Vapor Loss w/o Controls	
40600499	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Filling Vehicle Gas Tanks - Stage II	Not Classified **	
40600601	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Consumer (Corporate) Fleet Refueling - Stage II	Vapor Loss w/o Controls	
40600602	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Consumer (Corporate) Fleet Refueling - Stage II	Liquid Spill Loss w/o Controls	
40600603	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Consumer (Corporate) Fleet Refueling - Stage II	Vapor Loss w/controls	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
2501060201 – Storage and Transport; Petroleum and Petroleum Product Transport; Gasoline Service Stations; Underground Tank: Breathing and Emptying					
40600307	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Gasoline Retail Operations - Stage I	Underground Tank Breathing and Emptying	
40600707	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Consumer (Corporate) Fleet Refueling - Stage I	Underground Tank Breathing and Emptying	
2505030120 - Storage and Transport; Petroleum and Petroleum Product Transport; Truck; Gasoline					
40400154	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Terminals	Tank Truck Vapor Leaks	
40400254	Petroleum and Solvent Evaporation	Petroleum Liquids Storage (non-Refinery)	Bulk Plants	Tank Truck Vapor Losses	
40600162	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Tank Cars and Trucks	Gasoline: Loaded with Fuel (Transit Losses)	
40600163	Petroleum and Solvent Evaporation	Transportation and Marketing of Petroleum Products	Tank Cars and Trucks	Gasoline: Return with Vapor (Transit Losses)	

Table A-7. Mining and Quarrying Crosswalk for Point Source Subtraction

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
2325000000 – Industrial Processes; Mining and Quarrying: SIC 14; All Processes; Total					
30302401	Industrial Processes	Primary Metal Production	Metal Mining (General Processes)	Primary Crushing: Low Moisture Ore	
30302402	Industrial Processes	Primary Metal Production	Metal Mining (General Processes)	Secondary Crushing: Low Moisture Ore	
30302403	Industrial Processes	Primary Metal Production	Metal Mining (General Processes)	Tertiary Crushing: Low Moisture Ore	
30302404	Industrial Processes	Primary Metal Production	Metal Mining (General Processes)	Material Handling: Low Moisture Ore	
30302405	Industrial Processes	Primary Metal Production	Metal Mining (General Processes)	Primary Crushing: High Moisture Ore	
30302406	Industrial Processes	Primary Metal Production	Metal Mining (General Processes)	Secondary Crushing: High Moisture Ore	
30302407	Industrial Processes	Primary Metal Production	Metal Mining (General Processes)	Tertiary Crushing: High Moisture Ore	
30302408	Industrial Processes	Primary Metal Production	Metal Mining (General Processes)	Material Handling: High Moisture Ore	
30302409	Industrial Processes	Primary Metal Production	Metal Mining (General Processes)	Dry Grinding with Air Conveying	
30302410	Industrial Processes	Primary Metal Production	Metal Mining (General Processes)	Dry Grinding without Air Conveying	
30302411	Industrial Processes	Primary Metal Production	Metal Mining (General Processes)	Ore Drying	
30303101	Industrial Processes	Primary Metal Production	Leadbearing Ore Crushing and Grinding	Lead Ore w/ 5.1% Lead Content	
30303102	Industrial Processes	Primary Metal Production	Leadbearing Ore Crushing and Grinding	Zinc Ore w/ 0.2% Lead Content	
30303103	Industrial Processes	Primary Metal Production	Leadbearing Ore Crushing and Grinding	Copper Ore w/ 0.2% Lead Content	
30303104	Industrial Processes	Primary Metal Production	Leadbearing Ore Crushing and Grinding	Lead-Zinc Ore w/ 2% Lead Content	
30303105	Industrial Processes	Primary Metal Production	Leadbearing Ore Crushing and Grinding	Copper-Lead Ore w/ 2% Lead Content	
30303106	Industrial Processes	Primary Metal Production	Leadbearing Ore Crushing and Grinding	Copper-Zinc Ore w/ 0.2% Lead Content	
30303107	Industrial Processes	Primary Metal Production	Leadbearing Ore Crushing and Grinding	Copper-Lead-Zinc w/ 2% Lead Content	
30501001	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Fluidized Bed	
30501002	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Flash or Suspension	
30501003	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Multilouvered	
30501004	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Rotary	
30501005	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Cascade	
30501006	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Continuous Carrier	
30501007	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Screen	
30501008	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Unloading	
30501009	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Raw Coal Storage	
30501010	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Crushing	
30501011	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Coal Transfer	
30501012	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Screening	
30501013	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Air Tables	
30501014	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Cleaned Coal Storage	
30501015	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Loading	
30501016	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Loading: Clean Coal	
30501017	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Secondary Crushing	
30501021	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Overburden Removal	
30501022	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Drilling/Blasting	
30501023	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Loading	
30501024	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Hauling	
30501030	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Topsoil Removal	
30501031	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Scrapers: Travel Mode	
30501032	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Topsoil Unloading	
30501033	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Overburden	
30501034	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Coal Seam: Drilling	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
30501035	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Blasting: Coal Overburden	
30501036	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Dragline: Overburden Removal	
30501037	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Truck Loading: Overburden	
30501038	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Truck Loading: Coal	
30501039	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Hauling: Haul Trucks	
30501040	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Truck Unloading: End Dump - Coal	
30501041	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Truck Unloading: Bottom Dump - Coal	
30501042	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Truck Unloading: Bottom Dump - Overburden	
30501043	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Open Storage Pile: Coal	
30501044	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Train Loading: Coal	
30501045	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Bulldozing: Overburden	
30501046	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Bulldozing: Coal	
30501047	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Grading	
30501048	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Overburden Replacement	
30501049	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Wind Erosion: Exposed Areas	
30501050	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Vehicle Traffic: Light/Medium Vehicles	
30501051	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Surface Mining Operations: Open Storage Pile: Spoils	
30501060	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Surface Mining Operations: Primary Crusher	
30501061	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Surface Mining Operations: Secondary Crusher	
30501062	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Surface Mining Operations: Screens	
30501090	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Haul Roads: General	
30501099	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305310)	Other Not Classified	
30501640	Industrial Processes	Mineral Products	Lime Manufacture	Vehicle Traffic	
30501650	Industrial Processes	Mineral Products	Lime Manufacture	Quarrying Raw Limestone	
30502009	Industrial Processes	Mineral Products	Stone Quarrying - Processing (See also 305320)	Blasting: General	
30502010	Industrial Processes	Mineral Products	Stone Quarrying - Processing (See also 305320)	Drilling	
30502018	Industrial Processes	Mineral Products	Stone Quarrying - Processing (See also 305320)	Drilling with Liquid Injection	
30502020	Industrial Processes	Mineral Products	Stone Quarrying - Processing (See also 305320)	Drilling	
30502513	Industrial Processes	Mineral Products	Construction Sand and Gravel	Excavating	
30502514	Industrial Processes	Mineral Products	Construction Sand and Gravel	Drilling and Blasting	
30503101	Industrial Processes	Mineral Products	Asbestos Mining	Surface Blasting	
30503102	Industrial Processes	Mineral Products	Asbestos Mining	Surface Drilling	
30503103	Industrial Processes	Mineral Products	Asbestos Mining	Cobbing	
30503108	Industrial Processes	Mineral Products	Asbestos Mining	Overburden Stripping	
30503109	Industrial Processes	Mineral Products	Asbestos Mining	Ventilation of Process Operations	
30503199	Industrial Processes	Mineral Products	Asbestos Mining	Other Not Classified	
30504001	Industrial Processes	Mineral Products	Mining and Quarrying of Nonmetallic Minerals	Open Pit Blasting	
30504002	Industrial Processes	Mineral Products	Mining and Quarrying of Nonmetallic Minerals	Open Pit Drilling	
30504003	Industrial Processes	Mineral Products	Mining and Quarrying of Nonmetallic Minerals	Open Pit Cobbing	
30504010	Industrial Processes	Mineral Products	Mining and Quarrying of Nonmetallic Minerals	Underground Ventilation	
30504024	Industrial Processes	Mineral Products	Mining and Quarrying of Nonmetallic Minerals	Overburden Stripping	
30504101	Industrial Processes	Mineral Products	Clay processing: Kaolin	Mining	
30504201	Industrial Processes	Mineral Products	Clay processing: Ball clay	Mining	
30504301	Industrial Processes	Mineral Products	Clay processing: Fire clay	Mining	
30504401	Industrial Processes	Mineral Products	Clay processing: Bentonite	Mining	
30504501	Industrial Processes	Mineral Products	Clay processing: Fullers earth	Mining	
30504601	Industrial Processes	Mineral Products	Clay processing: Common clay and shale, NEC	Mining	
30531001	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305010)	Fluidized Bed	

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
30531002	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305010)	Flash or Suspension	
30531003	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305010)	Multilouvered	
30531004	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305010)	Rotary	
30531005	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305010)	Cascade	
30531006	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305010)	Continuous Carrier	
30531007	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305010)	Screen	
30531008	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305010)	Unloading	
30531009	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305010)	Raw Coal Storage	
30531010	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305010)	Crushing	
30531011	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305010)	Coal Transfer	
30531012	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305010)	Screening	
30531013	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305010)	Air Tables	
30531014	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305010)	Cleaned Coal Storage	
30531015	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305010)	Loading	
30531016	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305010)	Loading: Clean Coal	
30531017	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305010)	Secondary Crushing	
30531090	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305010)	Haul Roads: General	
30531099	Industrial Processes	Mineral Products	Coal Mining, Cleaning, and Material Handling (See 305010)	Other Not Classified	
30532009	Industrial Processes	Mineral Products	Stone Quarrying - Processing (See also 305020 for diff. units)	Blasting: General	
30532010	Industrial Processes	Mineral Products	Stone Quarrying - Processing (See also 305020 for diff. units)	Drilling	
30532011	Industrial Processes	Mineral Products	Stone Quarrying - Processing (See also 305020 for diff. units)	Hauling	
30532020	Industrial Processes	Mineral Products	Stone Quarrying - Processing (See also 305020 for diff. units)	Drilling	
30532090	Industrial Processes	Mineral Products	Stone Quarrying - Processing (See also 305020 for diff. units)	Haul Roads - General	

Table A-8. Agriculture Production Crosswalk for Livestock

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
2805001100 - Miscellaneous Area Sources; Agriculture Production – Livestock; Beef cattle - finishing operations on feedlots (drylots); Confinement					
30202001	Industrial Processes	Food and Agriculture	Beef Cattle Feedlots	Feedlots: General	Apportion between nonpoint SCCs based on CMU Model output
30202002	Industrial Processes	Food and Agriculture	Beef Cattle Feedlots	Feedlots: General	Apportion between nonpoint SCCs based on CMU Model output
2805001200 - Miscellaneous Area Sources; Agriculture Production – Livestock; Beef cattle - finishing operations on feedlots (drylots); Manure handling and storage					
30202001	Industrial Processes	Food and Agriculture	Beef Cattle Feedlots	Feedlots: General	Apportion between nonpoint SCCs based on CMU Model output
30202002	Industrial Processes	Food and Agriculture	Beef Cattle Feedlots	Feedlots: General	Apportion between nonpoint SCCs based on CMU Model output
2805001300 - Miscellaneous Area Sources; Agriculture Production – Livestock; Beef cattle - finishing operations on feedlots (drylots); Land application of manure					
30202001	Industrial Processes	Food and Agriculture	Beef Cattle Feedlots	Feedlots: General	Apportion between nonpoint SCCs based on CMU Model output
30202002	Industrial Processes	Food and Agriculture	Beef Cattle Feedlots	Feedlots: General	Apportion between nonpoint SCCs based on CMU Model output
2805003100 - Miscellaneous Area Sources; Agriculture Production – Livestock; Beef cattle - finishing operations on pasture/range; Confinement					
30202001	Industrial Processes	Food and Agriculture	Beef Cattle Feedlots	Feedlots: General	Apportion between nonpoint SCCs based on CMU Model output
30202002	Industrial Processes	Food and Agriculture	Beef Cattle Feedlots	Feedlots: General	Apportion between nonpoint SCCs based on CMU Model output
2805007100 - Miscellaneous Area Sources; Agriculture Production – Livestock; Poultry production - layers with dry manure management systems; Confinement					
30202101	Industrial Processes	Food and Agriculture	Eggs and Poultry Production	Manure Handling: Dry	Apportion between nonpoint SCCs based on CMU Model output
30202102	Industrial Processes	Food and Agriculture	Eggs and Poultry Production	Manure Handling: Dry	Apportion between nonpoint SCCs based on CMU Model output
2805007300 - Miscellaneous Area Sources; Agriculture Production – Livestock; Poultry production - layers with dry manure management systems; Land application of manure					
30202101	Industrial Processes	Food and Agriculture	Eggs and Poultry Production	Manure Handling: Dry	Apportion between nonpoint SCCs based on CMU Model output
30202102	Industrial Processes	Food and Agriculture	Eggs and Poultry Production	Manure Handling: Dry	Apportion between nonpoint SCCs based on CMU Model output
2805008100 - Miscellaneous Area Sources; Agriculture Production – Livestock; Poultry production - layers with wet manure management systems; Confinement					
30202105	Industrial Processes	Food and Agriculture	Eggs and Poultry Production	Manure Handling: Wet	Apportion between nonpoint SCCs based on CMU Model output
30202106	Industrial Processes	Food and Agriculture	Eggs and Poultry Production	Manure Handling: Wet	Apportion between nonpoint SCCs based on CMU Model output
2805008200 - Miscellaneous Area Sources; Agriculture Production – Livestock; Poultry production - layers with wet manure management systems; Manure handling and storage					
30202105	Industrial Processes	Food and Agriculture	Eggs and Poultry Production	Manure Handling: Wet	Apportion between nonpoint SCCs based on CMU Model output

Point SCC	SCC1 DESC	SCC3 DESC	SCC6 DESC	SCC8 DESC	Comments
30202106	Industrial Processes	Food and Agriculture	Eggs and Poultry Production	Manure Handling: Wet	Apportion between nonpoint SCCs based on CMU Model output
2805008300 - Miscellaneous Area Sources; Agriculture Production – Livestock; Poultry production - layers with wet manure management systems; Land application of manure					
30202105	Industrial Processes	Food and Agriculture	Eggs and Poultry Production	Manure Handling: Wet	Apportion between nonpoint SCCs based on CMU Model output
30202106	Industrial Processes	Food and Agriculture	Eggs and Poultry Production	Manure Handling: Wet	Apportion between nonpoint SCCs based on CMU Model output
2805039100 - Miscellaneous Area Sources; Agriculture Production – Livestock; Swine production - operations with lagoons (unspecified animal age); Confinement					
30202000	Industrial Processes	Food and Agriculture	Beef Cattle Feedlots	Swine Feedlots	Apportion between nonpoint SCCs based on CMU Model output
2805039200 - Miscellaneous Area Sources; Agriculture Production – Livestock; Swine production - operations with lagoons (unspecified animal age); Manure handling and storage					
30202000	Industrial Processes	Food and Agriculture	Beef Cattle Feedlots	Swine Feedlots	Apportion between nonpoint SCCs based on CMU Model output
2805039300 - Miscellaneous Area Sources; Agriculture Production – Livestock; Swine production – deep-pit house operations (unspecified animal age); Land application of manure					
30202000	Industrial Processes	Food and Agriculture	Beef Cattle Feedlots	Swine Feedlots	Apportion between nonpoint SCCs based on CMU Model output
2805047100 – Miscellaneous Area Sources; Agriculture Production – Livestock; Swine Production – deep-pit operations (unspecified animal age); Confinement					
30202000	Industrial Processes	Food and Agriculture	Beef Cattle Feedlots	Swine Feedlots	Apportion between nonpoint SCCs based on CMU Model output
2805047300 – Miscellaneous Area Sources; Agriculture Production – Livestock; Swine Production – deep-pit operations (unspecified animal age); Land application of manure					
30202000	Industrial Processes	Food and Agriculture	Beef Cattle Feedlots	Swine Feedlots	Apportion between nonpoint SCCs based on CMU Model output
2805053100 – Miscellaneous Area Sources; Agriculture Production – Livestock; Swine Production – outdoor operations (unspecified animal age); Confinement					
30202000	Industrial Processes	Food and Agriculture	Beef Cattle Feedlots	Swine Feedlots	Apportion between nonpoint SCCs based on CMU Model output

Note: no emissions were identified in the above SCCs within version 1.10a of the SEMAP point source inventory.