READ ME file for the 1999 NEI for HAPs (Stationary Sources)

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OVERVIEW

WHAT IS PROVIDED HERE?

Point and nonpoint source data files and documentation for the final 1999 NEI Version 3 for HAPs are provided for download by state, local, and tribal agencies, EPA, and industry. This READ ME file provides important information integral to your use of the files.

WHY ARE THESE FILES BEING POSTED?

Version 2 of the 1999 NEI for HAPs was posted in October, 2001, for state/local/tribal and industry review. Review was also solicited from within EPA. The revisions and additions provided in February, 2002, and June, 2002, for Version 2 of the NEI were incorporated to the extent possible to develop draft Version 3. Draft Version 3 of the 1999 NEI for HAPs was posted in December, 2002, for state/local/tribal, EPA, and industry review. The revisions provided by March 2003 have been incorporated to the extent possible to develop final Version 3.

Our goal is to have the final 1999 NEI Version 3 contain emission estimates that represent a consensus among the state/local/tribal agencies involved, EPA, and industry. We expect that this will continue to require dialog and information exchange.

WHAT IF I HAVE QUESTIONS?

Industry persons who have questions about emission estimates provided by state or local agencies can use Tables 5 and 6 at the end of this document to identify whom they can work with to resolve their questions.

To discuss emission estimates based on EPA MACT data, state, local, or industry staff should contact the MACT specialist listed in Table 7.

Please relay your general point source questions by e-mail to Ms. Anne Pope at the following address:

pope.anne@epa.gov

Please relay your questions and comments about residential wood combustion (fireplaces and stoves), open burning, and wildland fires by e-mail to Mr. Roy Huntley at the following address:

huntley.roy@epa.gov

Please relay your other nonpoint questions by email to Ms. Laurel Driver at the following address:

driver.laurel@epa.gov

ACRONYMS

ASCII	American Standard Code for Information Interchange
CAS	Chemical Abstract Service
EFIG	Emission Factor and Inventory Group
EPA	Environmental Protection Agency
ESD	Emission Standards Division
FIPS	Federal Information Processing Standards
FRS	Federal Registry System
FTP	File transfer protocol
GIS	Geographic Information System
HAP	Hazardous air pollutant
ID	Identification
I/O	Input/Output
IQG	Information Quality Guidelines
MACT	Maximum Achievable Control Technology
NA	Not applicable
NAICS	North American Industry Classification System
NEI	National Emissions Inventory
NIF	NEI Input Format
NTI	National Toxics Inventory
OEI	Office of Environmental Information
ORIS	Office of Regulatory Information Systems
PCT	Percent
SIC	Standard Industrial Classification
SCC	Source Classification Code
TRI	Toxics Release Inventory
VOC	Volatile organic compound

INTRODUCTION

The National Emissions Inventory (NEI) is a comprehensive inventory covering criteria pollutants and hazardous air pollutants (HAPs). The NEI was created by the EPA's Emission Factor and Inventory Group (EFIG) in Research Triangle Park, North Carolina. Previously, EFIG developed and maintained two separate inventories for HAPs and criteria pollutants. The two emission inventories were called the National Toxics Inventory (NTI) and the National Emission Trends (NET) inventory. The NTI was for HAPs and the NET was for criteria pollutants, and they sometimes used different procedures for determining emissions from the same sources. For 1999, the EFIG decided to combine the inventories into a single comprehensive inventory covering both criteria pollutants and HAPs. The new name is the National Emissions Inventory, or NEI. For this year, like last year, because of slightly different data structure, the EFIG prepared the state files separately. This README document is for the HAP files only.

The scope of the NEI effort for HAPs was to compile 1999 base year emissions data for as many point, nonpoint, and mobile sources in the United States as possible. Details on development of the 1999 NEI can be found at *http:www.epa.gov/ttn/chief/net/nei_plan.pdf*. Details on the file data structure for the NEI can be found at *http:www.epa.gov/ttn/chief/nif/index.html#ver3*. Because the NEI now houses both criteria pollutants and HAPs, EFIG made the decision that emissions data for lead, which is both a criteria pollutant and a HAP, will be included in the NEI for HAPs.

The 1999 NEI for HAPs contains emission estimates for major sources, area sources, mobile sources, and other sources which do not readily fall into these categories. This README pertains only to stationary sources; information on mobile sources can be found elsewhere.

Point sources in the NEI are sources for which the specific location is known; they may be either major or area sources. Major sources are defined in the Clean Air Act (CAA) as stationary sources that:

- Have the potential to emit 10 tons per year (tpy) or more of one HAP; or
- Have the potential to emit 25 tpy or more of any combination of HAPs.

As best as possible, point sources in the NEI have been identified as either major or area, but this identification may not correspond to the official regulatory classification of some sources. Nonpoint sources in the NEI include area sources that are not identified as point sources because their specific locations are not known. Nonpoint sources also include other sources such as wildfires and prescribed burning whose emissions are estimated at the county level.

WHAT 1999 NEI FINAL VERSION 3 FILES ARE POSTED FOR HAPs?

This file transfer protocol (ftp) site has separate point and nonpoint source files for each state, including Washington, DC, Puerto Rico, and the Virgin Islands, containing the 1999 NEI HAP files for that state. The files posted here by the EFIG include inventory documentation files describing how the NEI was developed, and inventory data files that contain the actual inventory data for each state. This READ ME file describes the different files posted on this site and how to use them.

WHAT INVENTORY DOCUMENTATION FILES ARE PROVIDED?

The documentation that describes how the NEI was developed appears in the following Adobe® files:

Point99.pdf for the point source inventory; and
Nonpt99.pdf for the nonpoint source inventory.

The documentation files provided in ".pdf" format require the Adobe® Acrobat® Reader Version 2.1 or higher to open and view. To download to a free copy of this software, go to *http://www.adobe.com/prodindex/acrobat/readstep.html*.

WHAT INVENTORY DATA FILES ARE PROVIDED?

Two inventory data files are provided for each state: point and nonpoint. The naming convention for these files is "XX99PTFINAL.zip" where XX is the two-character U.S. postal code (state abbreviation) for each state for point sources and "XX99NPFINAL.zip" for nonpoint sources (where XX is again the two-character U.S. postal code).

These files are currently posted only in Access®. If you need the files in an ascii fixed column or delimited version, please contact the EPA person listed in the Overview section for the source type in question.

The point source zipped file for each state contains an Access® database with eight record types, or tables, containing facility and emissions data. Included is a record-count table, a linking query, and an emissions sum query.

The nonpoint source zipped file for each state contains an Access® database with five record types.

In addition to the data files, an NEI lookup database has been posted. This file contains all of the codes and flags used in the data files. Please note that the pollutant HAP dictionary complies with the U.S. Environmental Protection Agency's (EPA's) Office of Environmental Information (OEI) Data Standards and contains several important fields which map the NEI pollutant codes to the Chemical Identification Data Standard. (For more information on the Data Standards, see *http://oaspub.epa.gov/edr/epastd$.startup*.)

WHAT SUMMARY FILES ARE PROVIDED?

In addition to the NEI documentation and data files posted here, additional files are provided to facilitate your evaluation of the NEI, and to help you put the emission estimates presented here into perspective by state, county, source category, and facility. The summary files and documentation reports posted here also allow you to clearly identify the source of emissions data selected for each point source facility and each nonpoint source category.

In each summary file, emissions are presented for each 188 HAP category, as the sum of the 188 HAPs, and as the sum of the 33 urban HAPs used by EPA in many air toxics programs. Each 33 urban HAP is flagged as such. Emissions are also presented for each individual HAP species in all files except for the county emission summary, the source category summary and the point source facility summary files. Each county is flagged with the urban/rural designation developed under EPA/s Integrated Urban Air Toxics Strategy. A county is considered "urban" if either:

1) it includes a metropolitan statistical area with a population greater than 250,000; or
2) the U.S. Census Bureau designates more than fifty percent of the population as "urban."

The Integrated Urban Air Toxics Strategy is an important part of EPA's national air toxics program. Please note that the definition of "urban" does not necessarily apply for regulatory or implementation purposes (*www.epa.gov/ttn/atw/urban/urbanpg.html*).

County Emission Summary

The county emission summary presents the NEI HAP emissions by state, and county for major, area, onroad, and nonroad sources. Major and area sources are also summarized as Maximum Achievable Control Technology (MACT) vs. non-MACT source categories.

Source Category Summary

The source category summary presents the NEI HAP emissions by state, and county for major, area, onroad, and nonroad sources. The area sources are delineated as point or nonpoint. Each stationary source category is presented by MACT code, Standard Industrial Classification (SIC) code, or just source category name if there is no applicable MACT or SIC code.

Point Source Facility Summary

The point source facility summary presents the NEI HAP emissions by NTI unique facility (often consisting of multiple sites) and individual site for major and area point sources. Included with each facility record is the address, site latitude/longitude, emission type (actual, allowable, potential, etc.), MACT and/or SIC code. The source of the emission estimate, whether original data or recently revised, is also noted as state/local/tribal, MACT, Toxics Release Inventory (TRI), industry, or 1996 NTI.

Point Source Stack Summary

The point source stack summary presents the NEI HAP emissions by NTI Unique Facility (often consisting of multiple sites) and individual site for major and area point sources. Included with each record is the emission type (actual, allowable, potential, etc.), emission unit ID, process ID, emission release point ID, source classification code (SCC), MACT and/or SIC code, emission release point type (stack/vent or fugitive), and latitude/longitude of the emission release point. The source of the emission estimate, whether original data or recently revised, is also noted as state/local/tribal, MACT, TRI, industry, or 1996 NTI.

Preparation of the Point Source Summary Files

Prior to the creation of the summary files, the point source files undergo a "standardization" process to eliminate possible double counting and annualize all estimates.

Where there were multiple estimates for a HAP at a given emission release point (i.e., defined by state and county FIPs, site ID, unit ID, process ID, and emission release point ID), one record is chosen according to the following logic:

- Data for the most recent year gets preference over older data (e.g., 1999 data are preferred over 1996 data);
- When information is provided for two different periods for the same emission release point, the more complete period gets preference over incomplete periods (365 days over 79);
- An emission type hierarchy is established, and higher types get preference over lower ones (entire period > average > potential > maximum annual > maximum > maximum allowable > average daily > actual hourly > maximum hourly > unknown);
- Where there are multiple metallic HAPs associated with the same emission release point and one of the compounds is a specific compound and the other is not, the specific HAP is retained over the non-specific HAP grouping (e.g., "Chromium (VI)" is retained over "Chromium and Compounds"); and
- Finally, all emissions are converted to tons/year. This entails reviewing the period start and end dates, emission type, and unit numerator. If the emission type is daily (29), the emissions are multiplied by the number of days in the period. If the emission type is hourly (14), the emissions are multiplied by the number of days in the period and number of hours in the day (24).

The standardized emissions are used to determine if the facility is major or area based on the CAA definition of major vs area source. The facility category field in the sites table is updated using this assignment.

Note: Records eliminated from the standardized file are retained in the inventory and can still be found in the state output files.

Nonpoint Stationary Source Summary

The nonpoint stationary source summary presents the NEI HAP emissions by state, county, and area source category. Included with each record is the emission type (actual, allowable, potential, etc.), SCC, MACT, and/or SIC code.

HOW ARE THE DATA FILES ORGANIZED?

EFIG decided that the structure of the NEI database would be the best format to use in compiling the NEI for HAPs. The NEI currently houses EPA's criteria pollutant emissions inventory, and adding the air toxics inventory will serve multiple end uses.

The specific data structure used for the 1999 NEI for HAPs is based on NEI Input Format (NIF) Version 3.0. Further information about the NIF can be found at *http://www.epa.gov/ttn/chief/nif/index.html*.

The NIF code tables can also be found there. Tables 1 and 2 summarize the structure of the point and nonpoint area source files provided.

WHAT SOFTWARE DO I NEED TO USE THE DATA FILES?

The NEI files are provided in Microsoft® Access 97. MS-Access provides a reliable, commonly used platform which can be used to view and link the files.

If you need these files in a different format, such as ascii fixed column or comma delimited, please contact the EPA person listed above in the Overview section for the source type in question. We are more than happy to provide a format you can use.

HOW CAN I REVIEW OR USE THE FILES?

State and local agencies, tribal representatives, and industry representatives are more familiar with the emission sources in a given county or state than EFIG. The following discussion will help you understand the source of the inventory data.

Point Source Files

Emissions Data Source

The point source inventory is a combination of state, local, and tribal agency data, EPA data for MACT sources, industry data, and TRI data, supplemented with data pulled from the 1996 NTI. EFIG relied on input from those most familiar with facilities in a given state or county to help identify missing, duplicate, or closed facilities within the NEI.

Table 1a. Summary of Point Source NEI Records

Transmittal	Site	Emission Unit	Emission Release Point
Record Type	Record Type	Record Type	Record Type
State and County FIPS	State and County FIPS	State and County FIPS	State and County FIPS
Organization Name[a]	State Facility Identifier	State Facility Identifier	State Facility Identifier
Transaction Type	Facility Registry Identifier[f]	Emission Unit ID	Emission Release Point ID
Inventory Year	Facility Category	ORIS Boiler ID	Emission Release Point Type
Inventory Type Code	ORIS Facility Code	SIC Unit Level	Stack Height
Transaction Creation Date	SIC Primary	NAICS Unit Level	Stack Diameter
Incremental Submission Number	NAICS Primary	Design Capacity	Stack Fenceline Distance
Reliability Indicator	Facility Name	Design Capacity Unit Numerator	Exit Gas Temperature
Transaction Comments	Site Description	Design Capacity Unit Denominator	Exit Gas Velocity
Contact Person Name[b]	Location Address	Max Nameplate Capacity	Exit Gas Flow Rate
Contact Phone Number[c]	City	Emission Unit Description	X Coordinate
Telephone Number Type Name	State	Submittal Flag	Y Coordinate
Electronic Address Text[d]	Zip Code	Tribal Code[e]	UTM Zone
Electronic Address Type Name	Country	Submittal Date[g]	XY CoordinateType
Source Type	NTI Site ID	NAICS Flag[h]	Horizontal Area Fugitive
Affiliation Type	Dun & Bradstreet Number		Release Height Fugitive
Format Version	TRI ID		Fugitive Dimensions Unit
Tribal Code[e]	Submittal Flag		Emission Release PT Description
	Tribal Code[e]		Submittal Flag
	Submittal Date[g]		Horizontal Collection Method Code
	NAICS Flag[h]		Horizontal Accuracy Measure
			Horizontal Reference Datum Code
			Reference Point Code
			Source Map Scale
			Coordinate Data Source Code
			Tribal Code[e]
			Submittal Date[g]
			Stack Default Flag[i]
			Location Default Flag[j]

[a] "US EPA EFIG" for this version.
[b] Ms. Anne Pope
[c] 919-541-5373
[d] pope. anne@epa.gov
[e] Contains relevant tribal ID code; "999" for non-tribal records
[f] NTI Unique Facility ID, often assigned to multiple Sites
[g] Date Final version was compiled
[h] Indicates how NAICs was defaulted
[i] Indicates origin of stack parameters
[j] Indicates how latitude/longitude was defaulted
[k] Indicates how MACT code was assigned
[l] Origin of total capture control efficiency
[m] Indicates source of estimates; state, local, tribal agency; ESD, industry, TRI, 1996 NEI

Table 1b. Summary of Point Source NEI Records (Continued)

Emission Process	Control Equipment	Emission Period	Emission
Record Type	Record Type	Record Type	Record Type
State and County FIPS	State and County FIPS	State and County FIPS	State and County FIPS
State Facility Identifier	State Facility Identifier	State Facility Identifier	State Facility Identifier
Emission Unit ID	Emission Unit ID	Emission Unit ID	Emission Unit ID
Emission Release Point ID	Process ID	Process ID	Process ID
Process ID	Pollutant Code	Start Date	Pollutant Code
SCC	Primary PCT Control Efficiency	End Date	Emission Release Point ID
Process MACT Code	PCT Capture Efficiency	Start Time	State Date
Emission Process Description	Total Capture Control Efficiency	End Time	End Date
Winter Throughput PCT	Primary Device Type Code	Actual Throughput	Start Time
Spring Throughput PCT	Secondary Device Type Code	Throughput Unit Numerator	End Time
Summer Throughput PCT	Control System Description	Material	Emission Numeric Value
Fall Throughput PCT	Third Control Device Type Code	Material I/O	Emission Unit Numerator
Annual Average Days Per Week	Fourth Control Device Type Code	Period Days Per Week	Emission Type
Annual Average Weeks Per Year	Submittal Flag	Period Weeks Per Period	EM Reliability Indicator
Annual Average Hours Per Day	Tribal Code[e]	Period Hours Per Day	Factor Numeric Value
Annual Average Hours Per Year	Total Capture Flag[l]	Period Hours Per Period	Factor Unit Numerator
Heat Content	Submittal Date[g]	Submittal Flag	Factor Unit Denominator
Sulfur Content		Tribal Code[e]	Material
Ash Content		Submittal Date[g]	Material I/O
Process MACT Compliance Status			Emission Calculation Method Code
Submittal Flag			EF Reliability Indicator
Tribal Code[e]			Rule Effectiveness
Submittal Date[g]			Rule Effectiveness Method
MACT Flag[k]			HAP Emissions Performance Level
			Control Status
			Emission Data Level
			Submittal Flag
			Tribal Code[e]
			Submittal Date[g]
			Data Source[m]
			Data Rating

[a] "US EPA EFIG" for this version.
[b] Ms. Anne Pope
[c] 919-541-5373
[d] pope. anne@epa.gov
[e] Contains relevant tribal ID code; "999" for non-tribal records
[f] NTI Unique Facility ID, often assigned to multiple Sites
[g] Date Final version was compiled
[h] Indicates how NAICs was defaulted
[i] Indicates origin of stack parameters
[j] Indicates how latitude/longitude was defaulted
[k] Indicates how MACT code was assigned
[l] Origin of total capture control efficiency
[m] Indicates source of estimates; state, local, tribal agency; ESD, industry, TRI, 1996 NEI

Table 2. Summary of Area (Nonpoint) and Nonroad Mobile Source NEI Records

Transmittal	Emission Process	Control Equipment	Emission Period	Emission
Record Type	Record Type	Record Type	Record Type	Record Type
State and County FIPS	State and County FIPS	State and County FIPS	State and County FIPS	State and County FIPS
Organization Name[a]	SCC	SCC	Start Date	SCC
Transaction Type	Process MACT Code	Pollutant Code	End Date	Pollutant Code
Inventory Year	Emission Process Description	Primary PCT Control Efficiency	Start Time	Start Date
Inventory Type Code	SIC code	PCT Capture Efficiency	End Time	End Date
Transaction Creation Date	NAICS	Total Capture Control Efficiency	Actual Throughput	Start Time
Incremental Submission Number	Winter Throughput PCT	Primary Device Type	Throughput Unit Numerator	End Time
Reliability Indicator	Spring Throughput PCT	Secondary Device Type	Material	Emission Numeric Value
Transaction Comments	Summer Throughput PCT	Control System Description	Material I/O	Emission Unit Numerator
Contact Person Name[b]	Fall Throughput PCT	Submittal Flag	Period Days Per Week	Emission Type
Contact Phone Number[c]	Annual Average Days Per Week	Tribal Code	Period Weeks Per Period	EM Reliability Indicator
Telephone Number Type Name	Annual Average Weeks Per Year		Period Hours Per Day	Factor Numeric Value
Electronic Address Text[d]	Annual Average Hours Per Day		Period Hours Per Period	Factor Unit Numerator
Electronic Address Type Name	Annual Average Hours Per Year		Submittal Flag	Factor Unit Denominator
Source Type	Heat Content		Tribal Code	Material
Affiliation Type	Sulfur Content			Material I/O
Format Version	Ash Content			Emission Calculation Method Code
Tribal Code	Process MACT Compliance Status			EF Reliability Indicator
	Submittal Flag			Rule Effectiveness
	Tribal Code			Rule Effectiveness Method
				Rule Penetration
				Submittal Flag
				Tribal Code
				Data Source Flag[e]

[a] "US EPA EFIG" for this version.
[b] Ms. Laurel Driver
[c] 919-541-2859
[d] driver.laurel@epa.gov
[e] Indicates source of estimates: state, local, tribal agency, ESD, EFIG, 1996 NEI

Revisions and additions were solicited on several versions of the point source NEI for HAPs. Details on the comment/review process are provided in the NEI for HAPs point source report (*Point99.pdf*). For the most part, all revisions and additions provided by state, local, and tribal agencies, EPA, and industry were incorporated. EFIG closely reviewed the site and HAP deletion records however, and retained some sites and HAPs if it was determined that the sites were truly operating in 1999, or to retain as complete a list of HAPs emitted as possible.

EFIG also identified duplicate facilities and revisions between the multiple data sets, and with the draft inventory. If no duplicates were identified in these steps, the facility was added to the NEI, or the requested revisions were processed as appropriate. If it was determined that a facility was included in one or more data sets, the new data submitted for the facility were added using a prioritization scheme of local-, state-, ESD- and then industry-submitted data. Four exceptions to this approach should be noted: ESD/MACT data for municipal waste combustors were given priority, as well as mercury estimates for coal-fired utilities and cadmium estimates for sewage sludge incinerators, and industry-supplied methylene diphenyl disocyanate (MDI) estimates.

EFIG revisions focused on identifying and removing duplicate facilities and HAPs, correcting for outliers with erroneous emissions data, refining the assignment of MACT codes and default stack parameters, and correcting erroneous SIC codes, SCCs, zip codes, and FIPS codes.

During review of the point source inventory files, you can distinguish the data source (state, local/tribal, EPA, TRI, or 96NTI) in a number of ways. In the Emission record, the data origin is flagged as:

- I = Industry 2002 revision
- I2 = Industry 2003 revision
- L = Local agency submittal June 2001
- L1 = Local agency submittal February 2002
- L2 = Local agency submittal June 2002
- L3 = Local agency submittal March 2003
- M1 = ESD original submittal
- M2 = ESD 2002 revision
- M3 = ESD 2003 revision
- S = State agency submittal June 2001
- S1 = State agency submittal February 2002
- S2 = State agency submittal June 2002
- S3 = State agency submittal March 2003
- T = TRI 99 data
- N = Data from the 1996 NEI

<u>Difference between Site and Facility ID</u>

It is important to distinguish between the terms “site” and “facility” as used in the NEI for HAPs. Without understanding this distinction, a reviewer may mistakenly assume that two sites are duplicates. In the NEI for HAPs, there can be multiple sites associated with the same NTI Unique Facility ID. (The NTI Unique Facility ID is currently stored in the strFacilityRegistryIdentifier field in the Site table.) Each of these sites will have a unique record

in the Site table, with a unique site ID (strStateFacilityIdentifier). However, these different site IDs should ultimately be linked to different emissions sources and/or HAP emissions at the facility. There are two reasons for this one-to-many relationship between facilities and sites:

- Multiple data sources have supplied data to the NEI for the same facility; or
- One source supplied multiple site records for co-located facilities.

For example, in the first case, a state may have submitted a set of records for a facility with site ID AL001. This site ID is part of the primary key in all of the remaining tables, Emission Unit, Emission Process, etc. (The NIF Version 3.0 documentation contains more information on the data structure of the NEI. See *http://www.epa.gov/ttn/chief/nif/index.html*) The EPA may have provided MACT data for the same facility under site ID EM234. Although these data are for the same facility, the emissions are for different processes at that facility and do not duplicate the emissions data submitted by the state. Rather than attempt to change the site ID in all tables to be consistent with one ID or the other, a common NTI Unique Facility ID is assigned to the two different site IDs. Not only is it easier to make this assignment than change the site IDs in the remaining tables, this approach preserves the original site IDs. This aids users in tracing the origin of data, and helps EPA compare data from the same sites from year to year.

The records in the Site table would appear as follows:

State FIPS	County FIPs	Site ID	NTI Unique ID	Facility Name
01	001	EM234	NTIAL001	AAAPaperMill
01	001	AL001	NTIAL001	AAAPaperMill

In the second case, one data source may have submitted data for closely located, but distinctly separate sources of emissions under separate Site IDs. This is a situation similar to the one discussed above. For example, Randolph Air Force Base submitted data under several Site IDs. Each of these sites correspond to a different emission process:

NTI Unique ID	Site ID	Facility Name	SCC	Process Description
NTI11234	TX0113947	Randolph Air Force Base	10200602	Boiler
NTI11234	TX0113950	Randolph Air Force Base	20400101	IC Engine
NTI11234	TX0112953	Randolph Air Force Base	40400498	Working Losses
NTI11234	TX0113961	Randolph Air Force Base	40400270	Standing Losses

Coordinate and Stack Parameter Defaults

Default flags are also included for coordinate data and stack parameters in the Emission Release Point record. The table below indicates the default coordinate defaults:

Code	Description
Exact	Match is to within a unique intersection or within a single side of a single street block.
Near	Match is to a single street block but the correct placement within block is unknown.
Zipcode+2	Match to a 5-digit zip code, plus the first two digits of the 4-digit extension.
Zipcode5	Match to a 5-digit zip code.
Zipcode3	Match to multiple 3-digit zip codes based on postal service Sectional Center Facility (SCF).
Ambig	Match is to multiple street segments.
Cntycent	County centroid.
FRS	Coordinate found in the Federal Registry System (FRS) database.
Site-Avg	Average of accurate coordinates of other emission release points at the same site.

Stack defaults were added to records that were missing any of the five variables (height, diameter, temperature, velocity, and flow). Default values for these parameters were obtained from the 1999 NEI, version 1. For details, see *http://www.epa.gov/ttn/chief/emch/invent/qaaugmementationmemo_99nei_60603.pdf*

The coding system used to identify the source of default stack parameters is:

0 = Original value (not a default)
1 = SCC default
2 = SIC code default
3 = National default
4 = Calculated value

A single NIF field is used to represent the source of all five stack parameters. The codes are presented in this field in the following order:

Stack height, stack temperature, stack diameter, stack velocity, stack flow

Thus, the code “00114" indicates that stack height and exit gas temperature are original values, stack diameter and exit gas velocity are SCC defaults, and exit gas flowrate was calculated based on the stack diameter and exit gas velocity values.

North American Industry Classification System (NAICS) Codes

Standard Industrial Classification (SIC) codes are gradually being replaced by the NAICS codes that were adopted by Canada, Mexico, and the United States in 1997. The NAICS is a classification of business establishments by economic activity. It supercedes the SIC. The NAICS code consists of 6 digits which are arranged hierarchically:

- ***Two digits*** - Economic sector (North American Industry Classification Sector Code)
- ***Three digits*** - Economic subsector (North American Industry Classification Subsector Code)
- ***Four digits*** - A group of related industries within the economy (North American Industry Classification Industry Code)
- ***Five digits*** - An industry within the economy (North American Industry Classification Industry Code)
- ***Six digits*** - A subdivision of an industry (North American Industry Classification Code)

To satisfy the EPA's NAICS Data Standard, EFIG adapted the Census Bureau's 1987 SIC to 2002 NAICS crosswalk (see *http://www.census.gov/epcd/naics02/*) and applied it to the NEI. NAICS codes supplied by the data submitter were not overwritten. The Census bureau crosswalk was modified to accommodate those situations in which one SIC code maps to multiple NAICS codes. Where all the NAICS codes associated with one SIC code shared the first 5 digits, the SIC code was mapped to this 5 digit NAICS code. If no common 5 digit NAICS code existed, EFIG applied the common 4 digit NAICs code, and so on. In those cases where all of the NAICS codes associated with an SIC code did not share the same 5, 4, 3 or 2 digit NAICS code, then the most common 5, 3, 4, 2 digit NAICS code was selected. These are the flags associated with defaulted NAICS codes:

NAICS Flag	Match Type	Description
01	one to one	One SIC maps to only one NAICS code.
02	one to many	One SIC maps to many NAICS code all of which share the first 5-digits.
03	one to many	One SIC maps to many NAICS code. Have chosen the most common 5 digit NAICS among these.
04	one to many	One SIC maps to many NAICS code all of which share the first 4-digit.
05	one to many	One SIC maps to many NAICS code. Have chosen the most common 4 digit NAICS among these.
06	one to many	One SIC maps to many NAICS code all of which share the first 3-digits.
07	one to many	One SIC maps to many NAICS code. Have chosen the most common 3 digit NAICS among these.
08	one to many	One SIC maps to many NAICS code all of which share the first 2-digits.
09	one to many	One SIC maps to many NAICS code. Have chosen the most common 2 digit NAICS among these.

Latitude/Longitude Standard Data Elements

The EPA's Latitude/Longitude Standard consists of the group of data elements used for recording horizontal and vertical coordinates and associated metadata that define a point on earth. Table 3 summarizes these changes. This standard will help users gauge the accuracy and reliability of a given set of coordinates. The primary responsibility for populating these fields lies with the data submitter, as it is difficult if not impossible to discern the origin of a latitude/longitude without being the primary author of the data. Since this standard was not part of NIF 2.0, EFIG only populated these fields whenever latitude/longitudes were obtained from the TeleAtlas Geocoding EZ Locator Service (*http://geocode.com*). Geocoder latitude/longitudes are assigned whenever the existing coordinates are null, clearly incorrect, or plotted well outside the county boundaries.

The geocoded coordinate pairs in the NEI are flagged with the explanatory codes listed in Table 4. The latitude/longitude data standards for these geocoded coordinates were populated with the default values shown there.

Table 3. Latitude/Longitude Data Standard

Latitude/Longitude Standard	Change	Description	Comments
Latitude Measure	Rename field	Y Coordinate - The measure of the angular distance on a meridian north or south of the equator.	+78.123456 The number of decimal positions recorded is determined by the precision of the measurement.
Longitude Measure	Rename field	X Coordinate - The measure of the angular distance on a meridian east or west of the prime meridian.	-123.234561 The number of decimal positions recorded is determined by the precision of the measurement
Source Map Scale Number	Add field	The number that represents the proportional distance on the ground for one unit of measure on the map or photo.	Only used when a map has been used to determine latitude/longitude. e.g., 125,000
Horizontal Collection Method Code	Add field	Method used to determine the latitude and longitude coordinates for a point on the earth.	e.g., 001 = address-matching house number, 018 on interpolation-map, 028 = Global Positioning Method, with unspecified parameters.
Horizontal Accuracy Measure	Add field	The measure of the accuracy (in meters) of the latitude and longitude coordinates.	
Horizontal Reference Datum Code	Add field	The code that represents the reference datum used in determining latitude and longitude coordinates.	001 = North American Datum of 1927 002 = North American Datum of 1983 003 = World Geodetic System of 1984
Reference Point Code	Add field	The code that represents the place for which geographic coordinates were established.	e.g. 101 = Entrance point of a facility or station.; 105 = Point where substance is processed, treated, settled, or stored.; 106 = Point where a substance is released.
Coordinate Data Source Code	Add field	The code that represents the party responsible for providing the latitude and longitude coordinates	e.g. EPA Headquarters, a state agency, tribal organization, EPA regional office etc.

Table 4. Geocoder Default Flags and Default Values for Latitude/Longitude Standard

Code	Description	Source Map Scale	Horizontal Collection Method Code & Description	Horizontal Reference Datum	Horizontal Accuracy (meters)	Coordinate Data Source Code
Exact	Match is to within a unique intersection or within a single side of a single street block.	24000	002 - Determination method based on address matching-block face.	001 - North American Datum of 1927	12	080 or 084*
Near	Match is to a single street block but the correct placement within block is unknown.	24000	003 - Determination method based on address matching-street centerline.	001 - North American Datum of 1927	50	080 or 084*
Zipcode+2	Match to a 5-digit zip code, plus the first two digits of the 4-digit extension.	24000	038 - Determination method based the center of an area defined by the 5-digit ZIP code and its 2-digit geographic segment extension.	001 - North American Datum of 1927	100	080 or 084*
Zipcode5	Match to a 5-digit zip code.	24000	026 - Determination method based on zipcode-centroid.	001 - North American Datum of 1927	10000	080 or 084*
Zipcode3	Match to multiple 3-digit zip codes based on postal service Sectional Center Facility (SCF).	24000	021 - Determination method based on interpolation-other.	001 - North American Datum of 1927	1000	080 or 084*
Ambig	Match is to multiple street segments.	24000	007 - Determination method based on address matching-other.	001 - North American Datum of 1927 001	20000	080 or 084*
Cntycent	County centroid, (all states except Puerto Rico)	N/A	021 - Determination method based on interpolation-other.	001 - North American Datum of 1927	N/A	082
	County centroid, Puerto Rico	100,000	018 - Determination method based on interpolation-map.	002 - North American Datum of 1983	N/A	084
FRS	Facility Registry System	N/A	021 - Determination method based on interpolation-other.	001 - North American Datum of 1927	N/A	082
Site-Avg	Average of accurate coordinates at the site	N/A	021 - Determination method based on interpolation-other.	001 - North American Datum of 1927	N/A	083 (Other)

* Coordinates are derived from USPS, Census Bureau Tiger server, or Eagle's TeleAtlas. These correspond to codes 080 (org. that contracts to perform work) and 084 (federal gov't other than EPA).

Total Capture Control Efficiency

To facilitate use of the data in dispersion and exposure modeling, EFIG attempted to fill in missing total capture control efficiencies. The total capture control efficiency represents the collective (aggregate) value for all control devices. In general, EFIG populated the total capture control efficiency by reviewing the primary percent control efficiency, percent capture efficiency, and total capture control efficiency fields. Where the total capture control was populated, this value was not changed. If just the primary percent control efficiency or percent capture efficiency was populated, the populated value was used as a proxy for the total capture control efficiency. If both values were populated, and total capture control efficiency was not, these values were multiplied to calculate the total capture control efficiency. In those cases where all three values were provided, the primary percent control efficiency was multiplied by the percent capture efficiency and compared with the total capture control efficiency. The greater of the two values was chosen. All default flags are listed below:

Total Capture Flag Code	Total Capture Flag Description
01	All Primary Percent Control Efficiency, Percent Capture Efficiency, and Total Capture Control Efficiency fields are zero; Total Capture Control Efficiency remains zero.
02	Only field populated is Total Capture Control Efficiency; therefore Total Capture Control Efficiency = Total Capture Control Efficiency.
02a	Only field populated is Total Capture Control Efficiency; therefore Total Capture Control Efficiency = Total Capture Control Efficiency. Total Capture Control Efficiency is corrected by multiplying by 100.
03	Only field populated is Percent Capture Efficiency; therefore Total Capture Control Efficiency = Percent Capture Efficiency.
04	Percent Capture Efficiency and Total Capture Control Efficiency are populated; therefore Total Capture Control Efficiency = Total Capture Control Efficiency.
05	Percent Capture Efficiency and Primary Percent Control Efficiency are populated; therefore Total Capture Control Efficiency = Percent Capture Efficiency * Primary Percent Control Efficiency.
06	Only field populated is Primary Percent Control Efficiency; therefore Total Capture Control Efficiency = Primary Percent Control Efficiency.
06a	Only field populated is Primary Percent Control Efficiency; therefore Total Capture Control Efficiency = Primary Percent Control Efficiency.
07	Primary Percent Control Efficiency and Total Capture Control Efficiency are populated; therefore Total Capture Control Efficiency = Total Capture Control Efficiency.
08	All three fields are populated; chose whichever was greater: Total Capture Control Efficiency or Percent Capture Efficiency * Primary Percent Control Efficiency.

Nonpoint Source Files

The 1999 NEI nonpoint source estimates were primarily developed using top-down methods based on national, regional, or state level emission estimates. The estimates were developed by combining emission factors with activity data, from information provided for MACT source categories, and from data and revisions provided by state and local agencies.

The development of the nonpoint source inventory using top-down methods may mean that the emission estimates for a given county may over- or underestimate true emissions, or an important nonpoint source category may be missing from a given county. EFIG needs those most familiar with a given state or county to help missing or erroneous data.

As you review the nonpoint source inventory files, you can again distinguish the data source (state, local, tribal, EPA, TRI, or 96NTI). In the Emission record, the data are flagged as:

- S = State agency provided data
- L = Local agency provided data
- T = Tribal agency provided data
- M = EPA/ESD provided MACT data
- E = EFIG generated 1999 estimates
- N = NTI96 data

WHO ARE THE CONTACTS FOR STATE, LOCAL, AND MACT DATA?

The following tables summarize the state and local agencies who provided data for the 1999 NEI, as well as the EPA contacts for MACT data (Tables 5-7).

Table 5. Point Source State, Local, and Tribal Agency Contacts

State	Contact	Email
Alabama	Cala Obenauf	cjo@adem.state.al.us
Jefferson Co., Alabama	Ed Wright	ewright@jcdh.org
Maricopa Co., Arizona	Bob Downing	bdowning@mail.maricopa.gov
Salt River Tribe, Arizona	Sarah Kelly	sarah.kelly@nau.edu
Arkansas	Kenya Brunson	brunson@adeq.state.ar.us
California	Andy Alexis	aalexis@arb.ca.gov
Colorado	David Thayer	david.thayer@state.co.us
Connecticut	William Simpson	william.simpson@po.state.ct.us
	Christopher Mulcahy	chris.mulcahy@po.state.ct.us
	Hicham Bourjaili	hicham.bourjaili@po.state.ct.us
Delaware	John Outten	johnoutten@state.de.us
	Mark Prettyman	mark.prettyman@state.de.us
	David Fees	david.fees@state.de.us
Florida	Yi Zhu	yi.zhu@dep.state.fl.us
Pinellas County, Florida	Pwu-Sheng Lui	pliu@co.pinellas.fl.us
Idaho	Michael Dubois	mdubois@deq.state.id.us
	Gary Reinbold	greinbol@deq.state.id.us
Illinois	Buzz Asselmeier	buzz.asselmeier@epa.state.il.us
Indiana	Jon Bates/Jay Koch	jkoch@dem.state.in.us
Kansas	Dana Morris	dmorris@kdhe.state.ks.us
	Wendy Vit	wvit@kdbe.state.ks.us
Kentucky	Debra Jennings	debra.jennings@mail.state.ky.us
	Andrea Wilson	andrea.wilson@mail.state.ky.us
Jefferson Co, Kentucky	Jess Goldsmith	jgoldsmith@co.jefferson.ky.us
Louisiana	Jennifer Walton	jennifer_b@deq.state.la.us
Maine	Rich Greves	rich.greves@state.me.us
Maryland	J. Will Haus	N/A
Massachusetts	Jen D'Urso	jen.d'urso@state.ma.us
	Robert Boisselle	robertboisselle@state.ma.us
	Azin Kavian	azin.kavian@state.ma.us
Michigan	Allan Ostrander	ostrander@state.mi.us
Minnesota	Chun Yi Wu	chun.yi.wu@pca.state.mn.us
Mississippi	Susan Holden	susan_holden@deq.state.ms.us
Missouri	Nathan J. Holm	nrholmn@mail.dnr.state.mo.us
Montana	Charles Homer	N/A
Nebraska	Dave Brown	N/A
Omaha, Nebraska	Tim Burns	tburns@ci.omaha.ne.us

Table 5. Point Source State, Local, and Tribal Agency Contacts (Continued)

State	Contact	Email
Lincoln Co., Nebraska	Charles Riley	criley@ci.lincoln.ne.us
	Stacy Munger	smunger@ci.lincoln.ne.us
Nevada	Lori Campbell	loric@ndep.state.nv.us
New Hampshire	Sonny Strickland	sstrickland@des.state.nh.us
	Rick Rumba	R_rumba@des.state.nh.us
New Jersey	Lisa Jones	ljones@deq.state.nj.us
	Brad Bollen	brad.bollen@dep.state.nj.us
New Mexico	Jim Shively	jim_shively@nmenv.state.nm.us
New York	Mike Sheehan	mpsheeha@gov.dec.state.ny.us
North Carolina	Carol Walker	carol.walker@ncmail.net
Buncombe Co., North Carolina	Greg Davis	davisgr@co.buncombe.nc.us
Forsyth Co., North Carolina	Steve Lyda	lydask@co.forsyth.nc.us
Mecklenberg Co., North Carolina	S. David Ross	rosssd@co.mecklenburg.nc.us
Ohio	Tom Velalis	tom.velalis@epa.state.oh.us
Dayton, Ohio	Andrew J. Roth	rothaj@rapca.org
Oklahoma	Jeff Davidson	jeff.davidson@deq.state.ok.us
Oregon	Steve Aalbers	aalbers.steve@deq.or.us
Pennsylvania	Carrie Eastman	eastman.carrie@dep.state.pa.us
Allegheny Co, Pennsylvania	Gary Fischman	gfishman@achd.net
Philadelphia, Pennsylvania	Thomas Weir	thomas.weir@phila.gov
Rhode Island	Karen Slattery	kslatter@dem.state.ri.us
South Carolina	Christopher Cheatham	cheathcc@dhec.state.sc.us
	Lynn Barnes	barnesls@columb31.dhec.state.sc.us
	Bob Betterton	betterrj@dhec.state.sc.us
Tennessee	Ron Redus	rrdeus@mail.state.tn.us
Chattanooga, Tennessee	Heather Sandner	sandner_h@mail.chattanooga.gov
Shelby Co., Tennessee	Christopher Boyd	cboydengrbmschd@yahoo.com
Davidson Co., Tennessee	Laura Artates	laura.artates@nashville.gov
Texas	Russell Nettles	rnettles@tceq.state.tx.us
Utah	Scott D. Hanks	shanks@deq.state.ut.us
Vermont	Jeff Merrell	jeffm@dec.anr.state.vt.us
Virginia	Tom Ballou	trballou@deq.state.va.us
Washington	Sally Otterson	sott461@ecy.wa.gov
Puget Sound, Washington	John K. Anderson	johna@pscleanair.org
West Virginia	David Porter	dporter@mail.dep.state.wv.us

Table 5. Point Source State, Local, and Tribal Agency Contacts (Continued)

State	Contact	Email
Wisconsin	Ralph Patterson	patter@dnr.state.wi.us
Wyoming	Mark Arn	marn@state.wy.us

Table 6. Nonpoint Source State and Local Agency Contacts

State/Local	Contact	Email
Alabama	Cala Obenauf	cjo@adem.state.al.us
California	Chris Nguyen	tnguyen@arb.ca.gov
	Andy Alexis	aalexis@arb.ca.gov
Bishop Paiute Tribe, California	Sarah Kelly	sarah.kelly@nau.edu
Colorado	Dale Wells	dale.wells@state.co.us
Ute Mountain Tribe, Colorado	Sarah Kelly	sarah.kelly@nau.edu
Delaware	Mark Prettyman	mark.prettyman@state.de.us
Duval County, Florida	Lori Tilley	TILLEY@coj.net
Hillsborough Co., Florida	Alain Watson	watsona@epchc.org
Pinellas Co., Florida	Pwu-Sheng Liu	pliu@co.pinellas.fl.us
Idaho	Mike DuBois	mdubois@deq.state.id.us
Maine	Rich Greves	rich.greves@state.me.us
Maryland	Lief Hockstad	lhockstad@mde.state.md.us
Massachusetts	Jen D'Urso	jen.d'urso@state.ma.us
	Azin Kavaian	azin.kavaian@state.ma.us
Michigan	Allan Ostrander	ostrander@state.mi.us
Minnesota	Chun-Yi Wu	chun.yi.wu@pca.state.mn.us
New Hampshire	David Healy	dhealy@des.state.nh.us
New Jersey	Olga Boyko	oboyko@dep.state.nj.us
New York	Syed Alam	snalam@gw.dec.state.ny.us
North Dakota	Tom Bachman	tbachman@state.nd.us
Dayton, Ohio	Andy Roth	rothaj@rapca.org
Oregon	Jeffrey Stocum	stocum.jeffrey@deq.state.or.us
Umatilla Tribe, Oregon	Sarah Kelly	sarah.kelly@nau.edu
Rhode Island	Karen Slattery	kslatter@dem.state.ri.us
South Carolina	Lynn Barnes	barnesls@columb31.dhec.state.sc.us
South Dakota	Kyrik Rombough	kyrik.rombough@state.sd.us
Davidson Co., Tennessee	Laura Artates	laura.artates@nashville.gov
Texas	Peter Ogbeide	pogbeide@tceq.state.tx.us
Vermont	Jeff Merrell	jeffm@dec.anr.state.vt.us
Olympic Region,	John Kelly	john@orcaa.org
Puget Sound, Washington	Kwame Agyei	kwamea@pscleanair.org
West Virginia	Joe Morgan	joemorgan@mail.dep.state.wv.us
Wisconsin	Orlando-Cabrera Rivera	orlando.cabrera-rivera@dnr.state.wi.sus

Table 7. MACT Source Category Contacts for the 1999 NEI

MACT Source Category	Contact	Email
Acetal Resins Production	David Markwordt	markwordt.david@epa.gov
Acrylic/Modacrylic Fibers Production	David Markwordt	markwordt.david@epa.gov
Acrylonitrile-Butadiene-Styrene Production	Bob Rosensteel	rosensteel.bob@epa.gov
Aerospace Industries	Tony Wayne	wayne.tony@epa.gov
Amino/Phenolic Resins Production	John Schaefer	schaefer.john@epa.gov
Asphalt Roofing and Processing	Rick Colyer	colyer.rick@epa.gov
Asphalt/Coal Tar Application - Metal Pipes	Kim Teal	teal.kim@epa.gov
Auto & Light Duty Truck (Surface Coating)	Dave Salman	salman.dave@epa.gov
Boat Manufacturing	Mark Morris	morris.mark@epa.gov
Brick and Structural Clay Products Manufacturing	Mary Johnson	johnson.mary@epa.gov
Butyl Rubber Production	Bob Rosensteel	rosensteel.bob@epa.gov
Carbon Black Production	Mark Morris	morris.mark@epa.gov
Cellulose Products Manufacturing	Bill Schrock	schrock.bill@epa.gov
Chlorine Production	Iliam Rosario	rosario.iliam@epa.gov
Chromic Acid Anodizing	Phil Mulrine	mulrine.phil@epa.gov
Clay Ceramics Manufacturing	Mary Johnson	johnson.mary@epa.gov
Coke Ovens: Charging, Top Side, and Door Leaks	Amanda Aldridge	aldridge.amanda@epa.gov
Coke Ovens: Pushing, Quenching, & Battery Stacks	Lula Melton	melton.lula@epa.gov
Commercial Sterilization Facilities	David Markwordt	markwordt.david@epa.gov
Commercial, Industrial, Solid Waste Incineration	Fred Porter	porter.fred@epa.gov
Cyanide Chemicals Manufacturing	Mark Morris	morris.mark@epa.gov
Decorative Chromium Electroplating	Phil Mulrine	mulrine.phil@epa.gov
Dry Cleaning: Perchloroethylene	Fred Porter	porter.fred@epa.gov
Engine Test Facilities	Jaime Pagan	pagan.jaime@epa.gov
Epichlorohydrin Elastomers Production	Bob Rosensteel	rosensteel.bob@epa.gov
Epoxy Resins Production	Randy McDonald	mcdonald.randy@epa.gov
Ethylene Processes	Mark Morris	morris.mark@epa.gov
Ethylene-Propylene Rubber Production	Bob Rosensteel	rosensteel.bob@epa.gov
Ferroalloys Production	Conrad Chin	chin.conrad@epa.gov
Flexible Polyurethane Foam Fabrication Operations	Maria Noell	noell.maria@epa.gov
Flexible Polyurethane Foam Production	Warren Johnson	johnson.warren@epa.gov
Friction Materials Manufacturing	Kevin Cavender	cavender.kevin@epa.gov
Gasoline Distribution (Stage I)	Steve Shedd	shedd.steve@epa.gov
Halogenated Solvent Cleaners	Paul Almodovar	almodovar.paul@epa.gov
Hard Chromium Electroplating	Phil Mulrine	mulrine.phil@epa.gov
Hazardous Waste Incineration	Mike Galbraith	galbraith.mike@epa.gov
Hospital Sterilizers	David Markwordt	markwordt.david@epa.gov
Hydrochloric Acid Production	Bill Maxwell	maxwell.bill@epa.gov
Hydrogen Fluoride Production	David Markwordt	markwordt.david@epa.gov
Hypalon (TM) Production	Bob Rosensteel	rosensteel.bob@epa.gov
Industrial Cooling Towers	Phil Mulrine	mulrine.phil@epa.gov
Industrial/Commercial/ Institutional Boilers & Process	Jim Eddinger	eddinger.jim@epa.gov
Integrated Iron & Steel Manufacturing	Phil Mulrine	mulrine.phil@epa.gov

Table 7. MACT Source Category Contacts for the 1999 NEI (Cont.)

MACT Source Category	Contact	Email
Iron Foundries	Kevin Cavender	cavender.kevin@epa.gov
Large Appliance (Surface Coating)	Lynn Dail	dail.lynn@epa.gov
Leather Tanning & Finishing Operations	Bill Schrock	schrock.bill@epa.gov
Lime Manufacturing	Joe Wood	wood.joe@epa.gov
Magnetic Tapes (Surface Coating)	Vinson Helwig	helwig.vinson@epa.gov
Manufacture of Nutritional Yeast	David Markwordt	markwordt.david@epa.gov
Marine Vessel Loading Operations	David Markwordt	markwordt.david@epa.gov
Medical Waste Incinerators	Rick Copland	copland.rick@epa.gov
Metal Can (Surface Coating)	Paul Almodovar	almodovar.paul@epa.gov
Metal Coil (Surface Coating)	Rhea Jones	jones.rhea@epa.gov
Metal Furniture (Surface Coating)	Mohamed Serageldin	serageldin.mohamed@epa.gov
Methyl Methacrylate-Acrylonitrile-Butadiene-Styrene	Bob Rosensteel	rosensteel.bob@epa.gov
Methyl Methacrylate-Butadiene-Styrene Terpolymers	Bob Rosensteel	rosensteel.bob@epa.gov
Mineral Wool Production	Mary Johnson	johnson.mary@epa.gov
Miscellaneous Coating Manufacturing	Randy McDonald	mcdonald.randy@epa.gov
Miscellaneous Metal Parts & Products (Surface Coating)	Kim Teal	teal.kim@epa.gov
Miscellaneous Organic Chemical Manufacturing	Randy McDonald	mcdonald.randy@epa.gov
Municipal Landfills	Michele Laur	laur.michele@epa.gov
Municipal Waste Combustors	Walt Stevenson	stevenson.walt@epa.gov
Natural Gas Transmission & Storage	Greg Nizich	nizich.greg@epa.gov
Neoprene Production	Bob Rosensteel	rosensteel.bob@epa.gov
Nitrile Butadiene Rubber Production	Bob Rosensteel	rosensteel.bob@epa.gov
Non-Nylon Polyamides Production	Randy McDonald	mcdonald.randy@epa.gov
Off-Site Waste and Recovery Operations	Elaine Manning	manning.elaine@epa.gov
Oil & Natural Gas Production	Greg Nizich	nizich.greg@epa.gov
Organic Liquids Distribution (Non-Gasoline)	Gregory LaFlam	laflam.gregory@epa.gov
Other Solid Waste Incineration - Crematories	Fred Porter	porter.fred@epa.gov
Paint Stripping Operations	Tony Wayne	wayne.tony@epa.gov
Paper & Other Webs (Surface Coating)	Paul Almodovar	almodovar.paul@epa.gov
Pesticide Active Ingredient Production	Randy McDonald	mcdonald.randy@epa.gov
Petroleum Refineries	Bob Lucas	lucas.bob@epa.gov
Pharmaceuticals Production	Randy McDonald	mcdonald.randy@epa.gov
Phosphate Fertilizers Production	Mary Johnson	johnson.mary@epa.gov
Phosphoric Acid Manufacturng	Mary Johnson	johnson.mary@epa.gov
Plastic Parts & Products (Surface Coating)	Kim Teal	teal.kim@epa.gov
Plywood and Composite Wood Products	Greg Nizich	nizich.greg@epa.gov
Polybutadiene Rubber Production	Bob Rosensteel	rosensteel.bob@epa.gov
Polycarbonates Production	David Markwordt	markwordt.david@epa.gov
Polyether Polyols Production	Bob Rosensteel	rosensteel.bob@epa.gov
Polyethylene Terephthalate Production	Bob Rosensteel	rosensteel.bob@epa.gov
Polystyrene Production	Bob Rosensteel	rosensteel.bob@epa.gov
Polysulfide Rubber Production	Bob Rosensteel	rosensteel.bob@epa.gov
Polyvinyl Chloride & Copolymers Production	Warren Johnson	johnson.warren@epa.gov
Portland Cement Manufacturing	Joe Wood	wood.joe@epa.gov
Primary Aluminum Production	Steve Fruh	fruh.steve@epa.gov

Table 7. MACT Source Category Contacts for the 1999 NEI (Cont.)

MACT Source Category	Contact	Email
Primary Copper Smelting	Gene Crumpler	crumpler.gene@epa.gov
Primary Lead Smelting	Kevin Cavender	cavender.kevin@epa.gov
Primary Magnesium Refining	Iliam Rosario	rosario.iliam@epa.gov
Printing, Coating & Dyeing Of Fabrics	Vinson Helwig	helwig.vinson@epa.gov
Printing/Publishing (Surface Coating)	Dave Salman	salman.dave@epa.gov
Publicly Owned Treatment Works (POTW) Emissions	Bob Lucas	lucas.bob@epa.gov
Pulp & Paper Production	Steve Shedd	shedd.steve@epa.gov
Refractory Products Manufacturing	Susan Zapata	zapata.susan@epa.gov
Reinforced Plastic Composites Production	Keith Barnett	barnett.keith@epa.gov
Rocket Engine Test Firing	Jaime Pagan	pagan.jaime@epa.gov
Rubber Tire Production	Tony Wayne	wayne.tony@epa.gov
Secondary Aluminum Production	John Schaefer	schaefer.john@epa.gov
Secondary Lead Smelting	Kevin Cavender	cavender.kevin@epa.gov
Semiconductor Manufacturing	Bill Schrock	schrock.bill@epa.gov
Shipbuilding & Ship Repair (Surface Coating)	Mohamed Serageldin	serageldin.mohamed@epa.gov
Site Remediation	Greg Nizich	nizich.greg@epa.gov
Solvent Extraction for Vegetable Oil Production	Greg Nizich	nizich.greg@epa.gov
Spandex Production	Elaine Manning	manning.elaine@epa.gov
Stationary Combustion Turbines	Sims Roy	roy.sims@epa.gov
Stationary Reciprocal Internal Combustion Engines	Sims Roy	roy.sims@epa.gov
Steel Foundries	Kevin Cavender	cavender.kevin@epa.gov
Steel Pickling - HCL Process	Kevin Cavender	cavender.kevin@epa.gov
Styrene Acrylonitrile Production	Bob Rosensteel	rosensteel.bob@epa.gov
Styrene-Butadiene Rubber & Latex Production	Bob Rosensteel	rosensteel.bob@epa.gov
Synthetic Organic Chemical Manufacturing (HON)	Mark Morris	morris.mark@epa.gov
Taconite Iron Ore Processing	Conrad Chin	chin.conrad@epa.gov
Utility Boilers: Coal	Bill Maxwell	maxwell.bill@epa.gov
Utility Boilers: Natural Gas	Bill Maxwell	maxwell.bill@epa.gov
Utility Boilers: Oil	Bill Maxwell	maxwell.bill@epa.gov
Wet-Formed Fiberglass Mat Production	Juan Santiago	santiago.juan@epa.gov
Wood Building Products (Surface Coating)	Vinson Helwig	helwig.vinson@epa.gov
Wood Furniture (Surface Coating)	Paul Almodovar	almodovar.paul@epa.gov
Wool Fiberglass Manufacturing	Mary Johnson	johnson.mary@epa.gov

HOW DOES THE NEI SATISFY THE INFORMATION QUALITY GUIDELINES?

To ensure maximum objectivity, utility, and integrity of data disseminated by federal agencies, the Office of Management and Budget (OMB) has required that all federal agencies issue information quality guidelines.[a] In response, EPA developed the *Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by the Environmental Protection Agency* (http://www.epa.gov/oei/qualityguidelines/). The Guidelines embody the following performance goals:

- Disseminated information should adhere to a basic standard of quality, including objectivity, utility, and integrity;
- Principles of information quality should be integrated into each step of EPA's development of information, including creation, collection, maintenance, and dissemination; and
- Administrative mechanisms for correction should be flexible, appropriate to the nature of and timeliness of the disseminated information and incorporated into EPA's processes.

These guidelines apply to information that EPA disseminates to the public. Such information includes any communication or representation of knowledge such as facts or data, in any medium or form, including web sites, FTP sites, brochures, data flat files, scientific studies, etc. EPA's guidelines require data producers to closely adhere to existing EPA quality procedures and ensure the transparency of their information products. Data providers must include sufficient documentation such that potential end-users can assess the suitability of the data product for their own uses. The documentation for the NEI is the obvious place to meet many of the objectives of the Guidelines. To this end, this Information Quality Guidelines section has been compiled as a stand-alone guide to describe the purpose, potential uses, product content, product limitations, and contacts for the 1999 point and nonpoint source NEI for HAPs.

Purpose

The National Emissions Inventory (NEI) is a comprehensive inventory covering all criteria pollutants and hazardous air pollutants (HAPs) for all areas of the United States. The NEI was created by the EPA's Emission Factor and Inventory Group (EFIG) in Research Triangle Park, North Carolina. This version (Version 3) of the 1999 base year NEI for HAPs will be used to support air quality modeling and other activities. To this end, the EPA established a goal to compile comprehensive, facility-specific data in its 1999 base year NEI for HAPs for point sources, in addition to preparing nonpoint area and mobile source 1999 base year inventories.

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[a] Office of Management and Budget (OMB), 2002. Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies. *http://www.whitehouse.gov/omb/fedreg/reproducible.html*

Explanation of Potential Uses

The Clean Air Act (CAA) includes many mandates for the EPA related to HAPs. The CAA presents a list of 188 HAPs for which EPA is to identify their sources, quantify their emissions by source category, develop regulations for each source category, and assess public health and environmental impacts after the regulations are put into effect. The NEI is a tool that EPA can use to meet the CAA mandates.

It is anticipated that the 1999 point and nonpoint source inventories developed from this effort will have multiple end uses. The NEI is a critical component of the EPA's national Air Toxics Program. The initial objective is to make the data available to EPA modelers for use in the National Air Toxics Assessment (NATA). In addition, the emissions data compiled as part of this inventory effort will be used in residual risk assessments conducted by EPA, and to prepare the air toxics portion of the annual EPA publication entitled *National Air Pollutant Emission Trends,* which is referred to as the EPA Trends report (U.S. EPA, 2000).

Product Content - Point Source NEI Inputs, Methodologies, and Outputs

The scope of the inventory effort was to compile 1999 base year HAP emissions data for point source facilities in the United States and its territories. Point sources may be either major or area sources, depending on their annual emissions. Major sources are defined in the CAA as stationary sources that:

- Have the potential to emit 10 tons per year (tpy) or more of one HAP; or
- Have the potential to emit 25 tpy or more of any combination of HAPs.

Smaller point source facilities with annual emissions below these thresholds are defined as area sources.

The goal in developing the point source NEI was to obtain facility-specific data such as facility name, location, stack information, emissions, and process descriptions. It was hoped that the data would be sufficient to support exposure modeling and risk assessment needs. The starting point for obtaining this facility-specific data was, therefore, state and local air pollution control agencies, who are most likely to have this type of detailed HAP inventory data.

State and local agencies and tribes were asked to supply HAP emission inventory data to the EPA. Inventory data were also requested from the EPA's Emission Standards Division (ESD) for Maximum Achievable Control Technology (MACT) source categories. The information requested from ESD was identical to the information requested from state and local agencies.

To develop a complete point source NEI, TRI data were also used. The purpose of appending TRI data to the local-, state-, and ESD-combined databases was to make sure all emissions data for facilities that report to TRI are included in the NEI.

As a last step, state and local agency, ESD, and TRI data for 1999 were supplemented with MACT and state-submitted data from the 1996 NEI for HAPs. State-submitted data from the

1996 base year inventory were only added for states and counties that did not provide a 1999 NEI submittal.

Because the goal of this project was to create a point source inventory that includes facility-specific information needed for exposure modeling, information was needed to supplement the NEI with stack parameters if not provided by state and local agencies or ESD. TRI also does not include stack parameters. Default stack parameters were generated by EFIG, using data from NEI99, version 1, for more than 3,000 SCCs. These data were added to state and local agency and ESD databases that reported emissions at the SCC level, but did not include the necessary stack parameters. Default stack parameters were also generated for over 900 SIC codes. In addition to some state, local, and tribal agency and ESD databases, TRI-reported emissions are reported at the SIC code level. The assumptions that were made in populating the NEI with default stack parameters are discussed below:

- Stack and fugitive parameters provided by state and local agencies and ESD were reviewed to determine if they are physically plausible or if a reporting error has possibly occurred. Values outside of the ranges shown below were either recalculated or replaced with a default value.

  - Stack Height (ft): 0.1 to 1,000
  - Fugitive or release vent height (ft): 0.1 to 100
  - Stack Diameter (ft): 0.1 to 50
  - Stack Temperature (°F): 50 to 1,800
  - Stack Velocity (ft/sec): 0.1 to 560
  - Stack Flow (cu ft/sec): 0.001 to 1,100,000

- For each emission release point, default or calculated stack parameters were added if any of the five fields were blank or out of range, if height was less than diameter, or if the calculated flowrate and the reported flowrate were not within 10% of one another;

- SCC default stack parameters, when available, took priority over SIC code default stack parameters;

- For facilities where no information was available on the type of emission release (i.e., stack vs. fugitive) or if the emission release point was reported as horizontal, goose neck, vertical with rain cap, or downward facing vent, it was assumed that the emission release point is a stack, and, where available, default stack parameters where added. Only emission release points reported as fugitives were treated as fugitives.

- The following national default stack values were developed from NEI99 data, and applied if there was no match on the SCC or SIC code.

  - Height: 10 ft
  - Diameter: 1 ft

- Temperature: 72°F
- Velocity: 15 ft/sec
- Flow: 12 cu ft/sec

- The following national default fugitive emission release point values were applied if the existing height was outside the acceptable range for fugitive emission release points:

  - Height: 10 ft
  - Diameter: 0.003 ft
  - Temperature: 72°F
  - Velocity: 0.0003 ft/sec
  - Flow: 0 cu ft/sec

  If the height was within range, the height was retained and the all other stack parameters were replaced with the national defaults.

- Each default/derived stack parameter is identified by a flag. The flags indicate whether a certain default parameter was SIC code-based, SCC-based, or based on EFIG's national default stack values. The default flags are included in the NEI Emission Release Point record.

Because the NEI is a modeling inventory, the association of a specific latitude/longitude to each emission release point is required. In the absence of actual coordinate data, a process was developed to fill in missing coordinates. If the missing coordinates could not be filled in with the average site location calculated from other coordinates associated with the site, then site address was used to determine the associated latitude and longitude. If address information was incomplete (including no zip code) and the Facility Registry System (FRS) database did not have valid latitude/longitude data for the site, then the location was defaulted to the county centroid as a last result. The locational default flags are shown in the NEI Emission Release Point record.

Locational data provided by state/local agencies, ESD, and TRI were also verified to determine if the latitude and longitude of each release point is within the county indicated. If the plotted release point is within 10 kilometers of an outside boundary of the county, it is assumed to be valid. Furthermore, all emission release points associated with a site must be within 3.0 km of one another. If one or more emission release points are outliers, they are replaced with the average site latitude/longitude calculated from the acceptable coordinates.

As discussed previously, the NEI will be used in the National Air Toxics Assessment. To this end, EFIG strived to identify point source processes that are, or will be, subject to MACT standards that will result in HAP emission reductions. Processes (in some cases all processes at a facility) are assigned a MACT code if ESD provided the data, or provided a facility list that was used to identify state/local agency and TRI data as subject to a MACT standard. The MACT codes can be found in the inventory files in the Emission Process record. This table also includes field to indicate that either the state or ESD specifically identified the process as subject to the MACT standard.

EFIG then used an SCC/SIC code/MACT dictionary to identify all facilities in the NEI that may be subject to MACT standards. This dictionary was developed by comparing all of the SCCs and SIC codes with information on types of sources that may be subject to each MACT standard. ESD engineers then reviewed the NEI to verify or revise the facilities listed as possibly subject to MACT standards. Their comments were incorporated in the 1999 NEI. Any MACT assignments made using this dictionary also appear on the inventory in the Emission Process record, and there is a field that indicate that the MACT code was assigned based on an SCC or an SIC code default.

Throughout the development of the 1999 NEI, EFIG requested state, local, and tribal agency, industry, and EPA review of draft versions. To the extent possible, EFIG incorporated all revisions and new data provided. In the inventory files, the Emission record indicates the source of the current reported emissions value. The following data source codes indicate if the data were provided or revised by state, local, or tribal agencies, EPA/ESD, industry, TRI, or pulled in from the 1996 NEI:

- I = Industry 2002 revision
- I2 = Industry 2003 revision
- L = Local agency submittal June 2001
- L1 = Local agency submittal February 2002
- L2 = Local agency submittal June 2002
- L3 = Local agency submittal March 2003
- M1 = ESD original submittal
- M2 = ESD 2002 revision
- M3 = ESD 2003 revision
- S = State agency submittal June 2001
- S1 = State agency submittal February 2002
- S2 = State agency submittal June 2002
- S3 = State agency submittal March 2003
- T = TRI 99 data
- N = Data from the 1996 NEI

An in-depth QA/QC program was implemented in conjunction with the inventory development process. The NEI QA/QC process was initiated immediately after each phase when state and local agency and EPA files or revisions were provided to EFIG. An automated QA program was developed and used to check each file for format and data field errors. Format checks were based on the minimum data requirements for file acceptance by EFIG. Data field checks were related to the codes, numeric data ranges, and locational data in the file. The EFIG accepted data with data field errors, as these could be corrected with minimal effort. Duplicate records were then removed, along with records that had null and zero emissions values. Referential integrity violations, invalid codes, and erroneous locational data were then corrected (or added) if possible.

Other QA/QC activities included identifying and correcting erroneous emissions data. For the most part, the errors detected were outliers with very high emissions estimates. The EFIG developed a series of internal QA/QC reports to target outliers and duplicate emissions. The first

approach was to evaluate significant changes between the 1996 NEI and 1999 NEI data, and/or extreme variation within the 1999 data. This included comparing 1996 HAP emission estimates to 1999 HAP estimates for each facility, total emissions for each state between 1996 and 1999, and total emissions for each MACT category between 1996 and 1999. These big pictures summaries highlighted source categories, states, and facilities with potential problems. The next set of QA/QC reports specifically highlighted individual facilities, and included identifying the top emitters for each HAP nationwide, ranking each facility based on its emissions of each HAP on a national basis, and listing the top emitters for HAP/MACT combination nationwide.

Outliers are usually difficult to spot - what appears to be a high emissions value may in fact be acceptable for a particular facility or source category. To aid in detecting these errors, the emissions data were compared to the range of values in the NEI and the percent contribution to total emissions. A summary table with the list of facilities that appear multiple times as top emitters for different HAPs also helped identify sites with outliers. These high values may be due to a series of outliers or duplicated emission records. The high emissions may also be correct for that facility and category. Thus, these summary data needed to be closely reviewed before any records were marked for deletion. In some cases, the state/local agency submitting the data was contacted to discuss the quality of the estimates, and if revisions were needed.

NEI point source output data are released in a number of formats. EPA's file transfer protocol (ftp) site has separate point source files for each state, including Washington, DC, Puerto Rico, and the Virgin Islands, containing the 1999 NEI HAP files for the state. The specific data structure used for the 1999 NEI for HAPs is based on NEI Input Format (NIF) Version 3.0. The files posted include an inventory documentation file that describes how the NEI was developed, and a READ ME file describes the different files posted on the site and how to use them.

In addition to the NEI documentation and NIF data files, additional files are provided to facilitate evaluation of the NEI, and to help put the emission estimates presented into perspective by state, county, source category, and facility. In each summary file, emissions are presented for each 188 HAP category, as the sum of the 188 HAPs, and as the sum of the 33 urban HAPs used by EPA in many air toxics programs. Each 33 urban HAP is flagged as such. Each county is flagged with the urban/rural designation developed under EPA's Integrated Urban Air Toxics Strategy. A county is considered "urban" if either:

> 1) it includes a metropolitan statistical area with a population greater than 250,000; or
> 2) the U.S. Census Bureau designates more than fifty percent of the population as "urban."

The county emission summary presents HAP emissions by state, and county for major, area, onroad, and nonroad sources. Major and area sources are also summarized as MACT vs. non-MACT source categories.

The source category summary presents emissions by state, and county for major, area, onroad, and nonroad sources. The area sources are delineated as point or nonpoint. Each stationary source category is presented by MACT code, SIC code, or just source category name if there is no applicable MACT or SIC code.

The point source facility summary presents emissions by NTI Unique facility (often consisting of multiple sites) and individual site for major and area point sources. Included with each facility record is the address, site latitude/longitude, emission type (entire period, average day, maximum allowable, etc.), MACT and/or SIC code. The source of the emission estimate, whether original data or recently revised, is also noted as state/local/tribal, MACT, TRI, industry, or 1996 NTI.

The point source stack summary presents emissions by NTI Unique facility (often consisting of multiple sites) and individual site for major and area point sources. Included with each record is the emission type (actual, allowable, potential, etc.), emission unit ID, process ID, emission release point ID, SCC, MACT and/or SIC code, emission release point type (stack/vent or fugitive), and latitude/longitude of the emission release point. The source of the emission estimate, whether original data or recently revised, is also noted as state/local/tribal, MACT, TRI, industry, or 1996 NTI.

Product Content - Nonpoint Source Inputs, Methodologies, and Outputs

The scope of the nonpoint source NEI for HAPs inventory effort was to compile 1999 base year HAP emissions data for nonpoint area sources in the United States and its territories.

There are essentially two definitions that can be used for area sources. First, area sources can be stationary point sources whose facility-specific emissions can be inventoried individually. Based on their HAP emissions, these "area" sources are defined as such because they have emissions below the major source threshold as defined in the CAA. According to the CAA, a major source is:

> Any stationary source . . . that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants.

EPA, state- and local agency-supplied facility level data, including area source facilities that emit below the major source threshold, are stored in the point source NEI.

Another area source definition is applied based on how the emission estimates are developed. Emission estimates for nonpoint area sources typically use "top-down" methods to estimate emissions. Top-down methods use national-, regional-, or state-level information to estimate emissions, which are then allocated to the local level. These methods simplify and generalize in order to estimate emissions from nonpoint sources.

The goal in developing the nonpoint area source NEI was to obtain/develop as much county-level information such as allocation data, county regulations, throughput, emissions, and process descriptions as possible. It was hoped that the data would be sufficient to support exposure modeling and risk assessment needs. The starting point for obtaining this nonpoint area source data was a combination of EFIG-derived estimates and state/local/tribal air pollution control agencies, who are most likely to have this type of detailed HAP inventory data.

State and local agencies and tribes were asked to supply HAP emission inventory data to the EPA. Inventory data were also requested from the EPA's ESD for MACT source categories. The information requested from ESD was identical to the information requested from state and local agencies.

As a last step, state/local/tribal agency, ESD, and EFIG-calculated data for 1999 were supplemented with MACT submitted data from the 1996 NEI for HAPs.

As discussed previously, the NEI will be used in the National Air Toxics Assessment. To this end, EFIG strived to identify nonpoint area sources that are, or will be, subject to MACT standards that will result in HAP emission reductions. Source categories are assigned a MACT code if ESD provided the data subject to a MACT standard. The MACT codes can be found in the inventory files in the Emission Process record.

Throughout the development of the 1999 NEI, EFIG requested state, local, and tribal agency, and EPA review of draft versions. To the extent possible, EFIG incorporated all revisions and new data provided. In the inventory files, the Emission record indicates the source of the current reported emissions value. The following data source codes indicate if the data were provided or revised by state, local, or tribal agencies, EPA/ESD, or pulled in from the 1996 NEI:

- E = Emission records calculated by EFIG;
- L = Local agency submittal;
- S = State agency submittal;
- T = Tribal agency submittal;
- N = Data from the 1996 NEI; and
- M = EPA/ESD provided MACT data.

An in-depth QA/QC program was implemented in conjunction with the inventory development process. The NEI QA/QC process was initiated immediately after each phase when state and local agency and EPA files or revisions were provided to EFIG. An automated QA program was developed and used to check each file for format and data field errors. Format checks were based on the minimum data requirements for file acceptance by EFIG. Data field checks were related to the codes and numeric data ranges in the file. The EFIG accepted data with data field errors, as these could be corrected with minimal effort. Duplicate records were then removed, along with records that had null and zero emissions values. Referential integrity violations, invalid codes, and erroneous locational data were then corrected (or added) if possible. Additionally, nonpoint data were checked against the point source NEI to identify possible overlaps between the two inventories. Where overlap existed, the point source data had priority. Thus, the area nonpoint data were either removed or adjusted.

NEI nonpoint source output data are released in a number of formats. EPA's file transfer protocol (ftp) site has separate nonpoint source files for each state, including Washington, DC, Puerto Rico, and the Virgin Islands, containing the 1999 NEI HAP files for the state. The specific data structure used for the 1999 NEI for HAPs is based on NIF Version 3.0. The files posted include an inventory documentation file that describes how the NEI was developed, and a READ ME file describes the different files posted on the site and how to use them.

In addition to the NEI county and source category summary files discussed above, the nonpoint stationary source summary presents the NEI HAP emissions by state, county, and area source category. Included with each record is the emission type (actual, allowable, potential, etc.), SCC, MACT, and/or SIC code.

Point Source NEI Product Limitations and Caveats

The 1999 NEI was developed initially for use in EPA's National Air Toxics Assessment (NATA). The goal of the national-scale assessment is to identify those air toxics which are of greatest potential concern, in terms of contribution to population risk. The results will be used to set priorities for the collection of additional air toxics data (e.g., emissions data and ambient monitoring data).

The 1999 NEI is a composite of emission estimates generated by state and local regulatory agencies, industry, and EPA. Because the estimates originated from a variety of sources and estimation methods, as well as differing purposes, they will in turn vary in quality, including pollutants, level of detail and geographic coverage. However, this compilation of emissions estimates represents the best available information to date.

Users of the data should consider that pollutants emitted from a particular source may have little impact on the immediate geographic area, and the amount of pollutants emitted does not indicate whether the source is complying with applicable regulations.

In addition, state and local agency-supplied emissions data are given priority in the point source NEI. These submissions are reviewed by the EFIG for data handling and entry errors, and potential double counting. The estimation methods, reliability of data sources and calculations, and other quality assurance issues are the responsibility of the preparing agency. To the extent possible, state and local agency-supplied data that appear as outliers in the data set are flagged for further review, and state/local agency officials are contacted to verify the validity of the data. In some cases, the questionable data are removed.

For some source facilities, emission estimates were not available for 1999. In these cases, data for other base years were used. For some of these source categories, ESD provided emissions data for a year other than 1999 and noted that the data is the best available to represent 1999. When data are reported for a year other than 1999, it is noted in the NEI.

Nonpoint Source NEI Product Limitations and Caveats

In addition to the point source limitations and caveats discussed above, state/local/tribal agency-supplied nonpoint source emissions data are given priority in the nonpoint source NEI, but these submissions are reviewed by the EFIG only for data handling and entry errors, and potential double counting. The estimation methods, reliability of data sources and calculations, and other quality assurance issues are the responsibility of the preparing agency. To the extent possible, state and local agency-supplied data that appear as outliers in the data set are flagged for further review, and state/local/tribal agency officials are contacted to verify the validity of the data. In some cases, the questionable data are removed.

For some source categories, emission estimates were not available for 1999. In these cases, data for other base years were used. For some of these source categories, ESD provided emissions data for a year other than 1999 and noted that the data is the best available to represent 1999. When data are reported for a year other than 1999, it is noted in the nonpoint source NEI.

Contact Information

NEI point source questions should be forwarded to:
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