

Explanation of Data Elements in 2014 NATA Files

Emissions files:

2014 NATA emissions by county (file: Emissions_County_SourceGroup_2014NATA.zip)

2014 NATA emissions by county and pollutant for NATA source groups

- Emissions are in tons per year (tpy).
- All source groups are those used in the cancer risk by source group summary, other than fires, which is broken out into wildfires, prescribed burning and agricultural burning.
- Source groups within the point, nonpoint, onroad and nonroad source categories include a 2-digit abbreviation (PT=point, ON=onroad, NR=nonroad, NP=nonpoint) at the beginning of the source group name.
- A crosswalk between the source groups and 2014 NEI inventory source classification codes (SCCs) and sectors is available in the “Supplemental Data” folder accompanying the NATA TSD.
- Emissions are by NEI pollutant; i.e., pollutants that were modeled as groups are presented in the pre-grouped form by NEI pollutant code. The name of the NATA pollutant group is provided.
- Data sources indicate the source of the emission estimates. A crosswalk of data source code and the name of the data source is provided in a separate table in the database. More detailed descriptions of the NEI data sources are in [the 2014 NEI v2 documentation](#). Note that the 2014EPA_Cr_Aug and 2014EPA_Cr_Aug_v2 datasets are chromium data submitted by state, local and tribal agencies and speciated by EPA as part of the 2014 NEI development.

2014 NATA emissions by facility (file: Emissions_FacilityTotal_2014NATA.zip)

Facility level emissions used in the 2014 NATA

- Includes stationary point, airports and rail yard facilities.
- Emissions are in tons per year (tpy).
- Emissions are by NEI Pollutant; i.e., pollutants that were modeled as groups are presented in the pre-grouped form by NEI pollutant code. The name of the NATA pollutant group is provided.
- Data sources indicate the source of the emission estimates. A crosswalk of data source code and the name of the data source is provided in a separate table in the database. More detailed descriptions of the NEI data sources are in [the 2014 NEI v2 documentation](#). Note that the 2014EPA_Cr_Aug and 2014EPA_Cr_Aug_v2 datasets are chromium data submitted by state, local and tribal agencies and speciated by EPA as part of the 2014 NEI development.

2014 NATA emissions by facility releases for non-airport facilities

(file: Emissions_Facility_ReleasePt_noairports_2014NATA.zip)

Sub-facility (modeled source-level) emissions for facilities included in the 2014 NATA.

- Emissions are in tons per year (tpy).
- The source id is assigned to each NEI process and release point within a facility based on release point parameters, geographic coordinates and temporal variation. Source id's beginning with

“SE” are electric generating units, and are modeled with hourly temporal variation. Source id’s beginning with “SN” use temporal profiles based on SCC code.

- Release point type is provided. For fugitive sources, fugitive release parameters are provided. For stack sources, stack release parameters are provided. These parameters were used in the modeling and are based on the 2014 NEI.
- The latitude and longitude are in decimal degrees and represent the location of the modeled source and are based on release point location in the 2014 NEI.

2014 NATA source-level emissions for Airport facilities

(file: Emissions_Airport_ReleaseParams_2014NATA.zip)

Provides the emissions by airport source and modeling parameters associated with the airport source used in the NATA AERMOD modeling for each airport in the NEI.

- The Airport Type field indicates whether the source was modeled as a runway or a non-runway. Airports modeled as non-runway include smaller airports, heliports, seaports.
- The latitude and longitude are in decimal degrees
 - For runways, two sets of latitude/longitude values are provided to represent the endpoints of the runway.
 - For the non-runway airports, a single set of latitude/longitude values is provided.
- Release parameters are provided in metric units (i.e., meters).
- Release parameter “Sigma Z” is the initial vertical dispersion used in AERMOD modeling. Width is populated only for runway airports and represents the width of the modeled runway. Fugitive length and width are only populated for non-runway airports.

Risk Files

Nationwide Results

These files contain summaries of the 2014 NATA estimated cancer and noncancer risks at the national, state, county, and census tract levels for the entire US (50 states and Washington DC) as well as Puerto Rico and the US Virgin Islands. There are two types of summary files, one that breaks the risks down by pollutants and one that breaks the risk down by source group. For more details please see the 2014 NATA TSD.

2014 NATA national cancer risk by tract pollutants

(file: Nata2014v2_National_CancerRisk_by_tract_poll.xlsx)

Columns "A" thru "F" provide geographic reference for that row

Columns "G" thru "S" break down the risk by source group (color coded as point, nonpoint, onroad mobile, nonroad mobile, primary biogenic, fires, secondary formation, and background). There are also subgroups provided. This information is most useful as a cross check of the overall risk results.

Columns "T" provides the total cancer risk (expressed as risk in-1 million) for that geographic entity

Columns "U" thru "CM" provides the cancer risks by each of the 71 pollutants in NATA that is a carcinogen

2014 NATA national cancer risk by tract source

(file: Nata2014v2_National_CancerRisk_by_tract_srcgrp.xlsx)

Columns "A" thru "F" provide geographic reference for that row

Column "G" provides the total cancer risk (expressed as risk in-1 million) for that geographic entity

Columns "H" thru "AU" provides the cancer risks by each of the NATA source groups (color coded as point, nonpoint, onroad mobile, nonroad mobile, primary biogenic, fires, secondary formations and background). There are also subgroups provided.

2014 NATA national noncancer risk by tract pollutant

(file: Nata2014v2_National_RespHI_by_tract_poll.xlsx)

There are similar files for each target organ (neuro, immun, kidney, liver)

Columns "A" thru "F" provide geographic reference for that row

Columns "G" thru "S" break down the noncancer respiratory risk by source group (color coded as point, nonpoint, onroad mobile, nonroad mobile, primary biogenic, fires, secondary formation, and background). There are also subgroups provided. This information is most useful as a cross check of the overall risk results.

Columns "T" provides the total noncancer respiratory risk (expressed as Respiratory Hazard Index (HI)) for that geographic entity

Columns "U" thru "BK" provides the noncancer risks by each of the 47 pollutants in NATA with respiratory health effects

2014 NATA national Noncancer risk by tract source

(file: Nata2014v2_National_RespHI_by_tract_srcgrp.xlsx)

There are similar files for each target organ (neuro, immun, kidney, liver)

Columns "A" thru "F" provide geographic reference for that row

Column "G" provides the total noncancer respiratory risk (expressed as Respiratory Hazard Index (HI)) for that geographic entity

Columns "H" thru "AU" provides the noncancer respiratory risk by source group (color coded as point, nonpoint, onroad mobile, nonroad mobile, primary biogenic, fires, secondary formation, and background). There are also subgroups provided.

Pollutant Specific Results

These Zipped MS Access files contain the ambient concentrations, exposure concentrations and risks associated with emissions of that specific pollutant

(example file: 1_1_1-TRICHLOROETHANE.zip)

Columns "1" thru "6" provide geographic reference for that row

Column "7" provides the NATA pollutant name

Columns "8" thru "21" provides the ambient concentration in $\mu\text{g}/\text{m}^3$ for each NATA source group.

Results are presented for state, county and tract level

Columns "22" thru "35" provides the exposure concentration in $\mu\text{g}/\text{m}^3$ for each NATA source group.

Results are presented for state, county and tract level

Columns "36" thru "49" provides the cancer risk (in-1 million) for each NATA source group. Results are presented for state, county and tract level

Columns "50" thru "63" provides the noncancer risk (hazard quotient (HQ)) for each target organ.

Results are presented for state, county and tract level

State Summary Files

These Zipped MS Access files contain the ambient concentrations, exposure concentrations and risks associated for a given state.

(example file: ConcExpRisk_tract_poll_State_AK.zip)

Columns "1" thru "5" provide geographic reference for that row

Column "6" provides the NATA pollutant name

Columns "7" thru "20" provides the ambient concentration in $\mu\text{g}/\text{m}^3$ for each NATA source group.

Results are presented for state, county and tract level

Columns "21" thru "34" provides the exposure concentration in $\mu\text{g}/\text{m}^3$ for each NATA source group.

Results are presented for state, county and tract level

Columns "35" thru "48" provides the cancer risk (in-1 million) for each NATA source group. Results are presented for state, county and tract level

Columns "49" thru "62" provides the noncancer risk (hazard quotient (HQ)) for each target organ.

Results are presented for state, county and tract level