Explanation of Data Elements in AirToxScreen Files

Emissions files:

2019 AirToxScreen emissions by facility (file: point_fac_2019_emissions.xlsx) Facility-level emissions used in the 2019 AirToxScreen

- Includes stationary point facilities.
- Emissions are in tons.
- Emissions are by pollutant name.
- FIPS is the Federal Information Processing Standards code which uniquely identified counties and county equivalents in the United States.

2019 AirToxScreen emissions by airports (file: airport_nonrunway_2019_emissions.xlsx) Facility-level emissions used in the 2019 AirToxScreen

- Includes airports (non-runway emissions) including smaller airports, heliports, and seaports
- Emissions are in tons.
- Emissions are by pollutant name.
- FIPS is the Federal Information Processing Standards code which uniquely identified counties and county equivalents in the United States.

2019 AirToxScreen emissions by airport runways (file: airport_runway_2019_emissions.xlsx) Facility-level emissions used in the 2019 AirToxScreen

- Includes emissions from airport runways.
- Width is the width of the modeled runway.
- Emissions are in tons.
- Emissions are by pollutant name.
- FIPS is the Federal Information Processing Standards code which uniquely identified counties and county equivalents in the United States.

2019 AirToxScreen emissions by railyard (file: railyards_2019_emissions.xlsx) Release point-level emissions used in the 2019 AirToxScreen

- Included emissions associated with the operation of switcher engines at each yard
- Emissions are in tons.
- Emissions are by pollutant name.
- FIPS is the Federal Information Processing Standards code which uniquely identified counties and county equivalents in the United States.

<u>**Risk files:**</u>
Nationwide Results
These files contain summaries of the AirToxScreen 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 on the methodology, please see the AirToxScreen TSD.

AirToxScreen national cancer risk by tract pollutants
(file: National_CancerRisk_by_tract_poll.xlsx)
Columns "A" through "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" through "BZ" provide the cancer risks by each pollutant in AirToxScreen that is a carcinogen

AirToxScreen national cancer risk by tract source
(file: National_CancerRisk_by_tract_srcgrp.xlsx)
Columns "A" through "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" through "AS" provide the cancer risks by each of the AirToxScreen source groups (color coded as point, onroad mobile, nonroad mobile, nonpoint, fires, primary biogenic, secondary formations, and background). There are also subgroups provided.

AirToxScreen national noncancer hazard by tract pollutant
(file: National_RespHI_by_tract_poll.xlsx)
There are similar files for each target organ (neuro, immun, kidney, liver)
Columns "A" through "F" provide geographic reference for that row
Column "G" provides the total noncancer respiratory hazard (expressed as Respiratory Hazard Index (HI)) for that geographic entity
Columns "H" through "AY" provide the noncancer risks by each pollutant in AirToxScreen with respiratory health effects

AirToxScreen national noncancer hazard by tract source
(file: National_RespHI_by_tract_srcgrp.xlsx)
There are similar files for each target organ (neuro, immun, kidney, liver)
Columns "A" through "F" provide geographic reference for that row
Column "G" provides the total noncancer respiratory hazard (expressed as Respiratory Hazard Index (HI)) for that geographic entity
Columns "H" through "AS" provide the noncancer respiratory risk by source group (color coded as point, onroad mobile, nonroad mobile, nonpoint, fires, primary biogenic, secondary formations, and background). There are also subgroups provided.

Pollutant Specific Results
These zipped MS Access files contain the ambient concentrations, exposure concentrations, risks, and hazards associated with emissions of that specific pollutant
(example file: 1_1_1-TRICHLOROETHANE.zip)
Columns "1" through "6" provide geographic reference for that row
Column "7" provides the AirToxScreen pollutant name
Column "8" provides the total from all sources for the pollutant for the given table selected (*i.e.*, total ambient concentration in $\mu g/m^3$, total exposure concentration in $\mu g/m^3$, total cancer risk (in-1 million), and the total noncancer hazard) for each source group.
Columns "9" through "46" provide the value for the pollutant for the given table selected by source group (point, onroad mobile, nonroad mobile, nonpoint, fires, primary biogenic, secondary formations, and background). There are also subgroups provided.

State Summary Files
These Zipped MS Access files contain the ambient concentrations, exposure concentrations, risks, and hazards for a given state.
(example file: ConcExpRisk_tract_poll_State_AK.zip)
Columns "1" through "6" provide geographic reference for that row
Column "7" provides the AirToxScreen pollutant name
Column "8" provides the total ambient concentration in $\mu g/m^3$, total exposure concentration in $\mu g/m^3$, or total cancer risk (in-1 million)
Columns "9" through "46" provide the ambient concentration in $\mu g/m^3$, exposure concentration in $\mu g/m^3$, or cancer risk (in-1 million) for the pollutant by source group (point, onroad mobile, nonroad mobile, nonpoint, fires, primary biogenic, secondary formations, and background). There are also subgroups provided.
Columns "47" though "60" in the "Cancer risk (in a million) and noncancer Risk (hazard quotient)" table provides the target organ specific hazard quotient for the given pollutant